VOLUNTARY REMEDIATION PROGRAM COMPLIANCE STATUS REPORT

Thermo King Corporation
Louisville, Jefferson County, Georgia
HSI Site No. 10702

Prepared for:	**Thermo King Corporation** **1430 Georgia Highway 24 East, Louisville, Georgia 30434**
Date:	**March 10, 2016**
Prepared by:	**Amec Foster Wheeler Environment & Infrastructure, Inc.** **1075 Big Shanty Road NW, Suite 100, Kennesaw, Georgia 30144**
Project No.:	**6122090322**

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March 10, 2016

1 Paper Copy and 2 CDs

Ms. Carolyn L. Daniels, P.G.
Georgia Environmental Protection Division
Response & Remediation Program
Land Protection Branch
2 Martin Luther King Jr. Drive, SE
Suite 1054 East Floyd Tower
Atlanta, Georgia 30334-9000

Subject: **Voluntary Remediation Program Compliance Status Report**
Thermo King Corporation - Louisville, Jefferson County, Georgia
HSI Site No. 10702 Tax Parcel 0090-024

Dear Ms. Daniels:

Ingersoll Rand Company is hereby submitting three copies (one paper copy and two PDF copies on compact discs) of the attached Voluntary Remediation Program (VRP) Compliance Status Report for the Thermo King Corporation site in Louisville, Georgia to the Georgia Environmental Protection Division (GEPD). This report was prepared to comply with GEPD's request for a Compliance Status Report per the March 10, 2011 letter accepting the site into the VRP. We look forward to meeting with you at the site in the near future and discussing the path forward for the site.

Please review the attached information and call me at (704) 990-3250 with any questions you may have.

Sincerely,

Michael Goldstein
Ingersoll Rand Company
Environmental, Health, and Safety
Global Remediation and Transaction Manager

cc: Rhonda Quinn – Amec Foster Wheeler (1 paper copy and 1 PDF copy on CD)
Dave Sordi – Quantum Management Group, Inc. (1 PDF copy on CD)

March 10, 2016

Certification of Compliance With Risk Reduction Standards

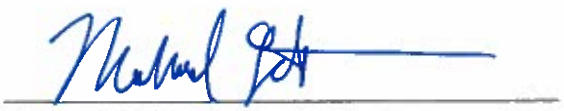
I certify under penalty of law that this report and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Based on my review of the findings of this report with respect to the risk reduction standards of the Rules for Hazardous Site Response, Rule 391-3-19.07, I have determined that:

- With the application of engineering controls and the environmental covenant, soils on the property located at 1430 Highway 24 East are in compliance with Type 4 Reduction Standards with controls per the provisions, purposes, standards and policies of the Georgia voluntary Remediation Program Act (VRPA).

- With the application of engineering controls, the environmental covenant and as demonstrated by contaminant fate-and-transport modeling, groundwater and seeps on the property located at 1430 Highway 24 East are in compliance with Type 4 Risk Reduction Standards with controls per the provisions, purposes, standards and policies of the Georgia voluntary Remediation Program Act (VRPA).

Certified By: Date:



3/9/16

Michael Goldstein
Global Remediation and Transaction Manager
Ingersoll Rand Company

March 10, 2016

Mr. Michael Goldstein
Global Remediation and Transaction Manager
Ingersoll Rand Company
800-E Beaty Street
Davidson, NC 28036

PDF copy on CD

Subject: **Voluntary Remediation Program Compliance Status Report**
Thermo King Corporation - Louisville, Jefferson County, Georgia
HSI Site No. 10702 Tax Parcel 0090-024
Amec Foster Wheeler Project 6122-09-0322

Dear Mr. Goldstein:

Amec Foster Wheeler Environment & Infrastructure, Inc. is pleased to submit the attached Voluntary Remediation Program Compliance Status Report for the Thermo King Corporation site in Louisville, Georgia. This report is for your submittal to the Georgia Environmental Protection Division (GEPD). This report was prepared to comply with EPD's request for a Compliance Status Report per the March 10, 2011 letter accepting the site into the VRP.

We appreciate the opportunity to provide environmental consulting services to the Ingersoll Rand Company. Please contact us at 770-421-3400 with any questions or comments regarding this report.

Sincerely,
Amec Foster Wheeler Environment & Infrastructure, Inc.

Rhonda N. Quinn, P.G.
Senior Geologist
Georgia Registration #1031

A. David Alcott
Senior Associate Engineer

Enclosure

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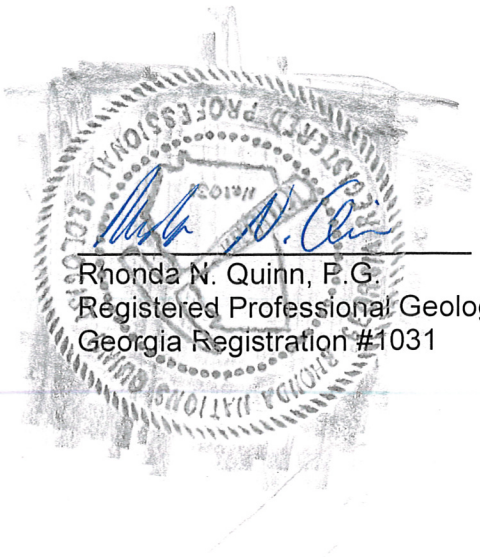
Voluntary Remediation Program Compliance Status Report
Thermo King Corporation – Louisville, Georgia
HSI Site No. 10702/Tax Parcel 0090-024
Amec Foster Wheeler Project 6122-09-0322

March 10, 2016

Professional Ground-Water Scientist Certification

"I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in ground-water hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding ground-water monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by subordinates working under my direction."



Rhonda N. Quinn, P.G.
Registered Professional Geologist
Georgia Registration #1031

3/9/16
Date

Voluntary Remediation Program Compliance Status Report
Thermo King Corporation – Louisville, Georgia
HSI Site No. 10702/Tax Parcel 0090-024
Amec Foster Wheeler Project 6122-09-0322

March 10, 2016

PORTABLE DOCUMENT FORMAT CERTIFICATION

The electronic copy of the Voluntary Remediation Program Compliance Status Report for the Thermo King Corporation, HSI 10702/Tax Parcel 0090-024 as provided on this CD is to the best of our knowledge complete and identical to the paper copy and virus free.

Amec Foster Wheeler Environment & Infrastructure, Inc.

Rhonda N. Quinn, P.G.
Senior Geologist

A. David Alcott
Senior Associate Engineer

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EXECUTIVE SUMMARY

This is the first Voluntary Remediation Program (VRP) Compliance Status Report (VRP CSR) prepared on behalf of Thermo King Corporation for its former manufacturing facility located in Louisville, Georgia (Site) in accordance with the requirements of the Voluntary Remediation Program. The facility consists of a manufacturing building with approximately 300,000 square feet under roof with supporting wastewater treatment and storage areas, located on a 110.5-acre parcel. From 1965 through 2012, Thermo King operated the facility for manufacturing refrigeration units for container boxes, tractor-trailers, and buses. The facility was shut down in 2012 and is currently vacant.

The Site was listed on the Hazardous Site Response Act (HSRA) Hazardous Site Inventory (HSI) (HSI # 10702) in 2001. Investigations to characterize site geologic and hydrogeologic conditions and to assess the presence, concentrations, and limits of facility releases to Site soils, groundwater, seeps, and surface water were previously presented in the 2007 Revised (HSRA) Compliance Status Report. In 2010, in lieu of implementing a HSRA Corrective Action Plan (CAP), Thermo King submitted an application, including a Revised Remediation Plan, on December 22, 2010. Upon completion of EPD-requested supplemental investigations and groundwater fate and transport modeling, the Site was accepted into the VRP on March 10, 2011.

The objective of the VRP is to achieve compliance with the provisions, purposes, standards, and policies of the program and to certify compliance with appropriate cleanup standards. Considering the findings of investigations previously conducted under HSRA, the VRP Revised Remediation Plan proposed additional remediation activities to complete demonstration of compliance with the VRP objectives and to support a request that the Site be removed from the Hazardous Site Inventory. The additional remediation activities implemented were:

- To designate the manufacturing building floor slab as an engineering control, an exposure barrier to direct contact with impacted sub-slab soils
- To construct a rip-rap blanket to preclude surface expression of seep waters containing constituents at concentrations exceeding ISWQC
- To monitor groundwater, seep, and surface water and report findings in 10 semi-annual Status Reports; and
- To execute an Environmental Covenant describing activities to maintain control of potential exposures

These remedial activities are summarized in the following paragraphs. Recommendations for a post-VRP CSR inspection and maintenance program and continued seep monitoring are also presented.

In summary, engineering controls have been established to control direct contact to impacted soils beneath the manufacturing building floor slab and to preclude surface expression of seep waters containing constituents at concentrations exceeding their respective ISWQC. Groundwater, seep, and surface water sampling has been conducted and reported semi-annually since 2010 under the VRP. Calculations show that constituents in the UWBZ have not and will not impact Manson Branch at concentrations exceeding their respective ISWQC. Sampling and fate and transport modeling of the IWBZ indicate that contaminant migration will stabilize and recede before constituent concentrations exceed maximum contaminants levels (MCLs) at the

property line. In addition to the engineering controls noted above, an Environmental Covenant has been prepared to further manage potential exposures, including:

- Prohibiting residential use of the property
- Restricting use of Site groundwater for all but remediation-related purposes
- Requiring re-assessment of potential vapor intrusion in the event of future building use

In accordance with the VIRP and the schedule established in 2010, Thermo King is submitting the required VRP CSR documenting compliance with the provisions, purposes, standards, and policies of the program and certifying compliance with appropriate cleanup standards. Upon approval of the VRP CSR, Thermo King requests that EPD remove the Site from the HSI.

Thermo King proposes that post-CSR Site activities will be annual inspection and maintenance of the engineering controls, annual seep sampling to establish that the rip-rap blanket continues to preclude the surface expression of seep waters containing constituents at concentrations exceeding ISWQC, and annual reporting. These activities will be continued for five years. At that time the accumulated results will be reviewed and the requirements/plan for further actions will be evaluated.

1.0 INTRODUCTION

The Thermo King Site is located at 1430 Highway 24 East in Louisville, Jefferson County, Georgia. On October 2, 2001, the Georgia Environmental Protection Division (EPD) listed the Thermo King Site on the Hazardous Site Response Act (HSRA) Hazardous Sites Inventory (HSI) due to the detection of 1,1-dichloroethene (1,1-DCE) in groundwater at levels exceeding reportable quantities and the presence of a water-supply well within a ½-mile radius of the areas affected by chlorinated volatile organic compounds (VOCs) in groundwater. Prior and subsequent to the listing, Thermo King has submitted two HSRA Compliance Status Reports (CSR) (December 17, 2003 and dated March 21, 2007) presenting the results of investigations to characterize site geologic and hydrogeologic conditions and to assess the presence, concentrations, and limits of facility releases of constituents to site soils, groundwater, seep, and surface water. The 2007 Revised Compliance Status Report (the Revised CSR), provided in **Appendix A**, presented that the site soil and groundwater impacts were delineated under HSRA to non-detect concentrations and certified the Site did not meet risk reduction standards (RRS). EPD approved the 2007 Compliance Status Report in 2009. Because the Site did not meet RRS clean-up levels, EPD requested a Corrective Action Plan (CAP) to perform remediation to clean up the soil and groundwater concentrations exceeding Types 3 and 4 RRS.

In January 2010, Georgia implemented the Voluntary Remediation Program (VRP). The VRP allows for corrective action based on the elimination of exposure through either remediation and/or the use of engineering and institutional controls. In order for a HSRA site to enter the VRP, its initial VRP application must be submitted before its HSRA Compliance Status Report (CSR) or CAP is due to EPD. Thermo King submitted their initial VRP Application, dated January 29, 2010 in lieu of submitting a HSRA CAP. During the start-up of the VRP program, EPD allowed the submittal of partial Applications and provided comments requesting additional items to complete the Application. Based on GAEPD comments regarding Thermo King's VRP application, additional monitoring wells were installed and further assessment was conducted to provide data for the VRP-required fate-and-transport model. An Addendum to the VRP Application, dated December 22, 2010, completed the list of items required by EPD to complete the VRP Application. The VRP Application Addendum contained a revised Voluntary Investigation and Remediation Plan (VIRP) and addressed EPD comment letters dated May 17, August 31, and October 15, 2010. On March 10, 2011, EPD approved the VIRP and accepted the Thermo King Site into the VRP. In their letter approving the Louisville Site for the Voluntary Remediation Program, EPD requested that a Compliance Status Report be prepared and submitted five years after the Site entered the VRP. Also required by the VRP, nine Status Reports were submitted to EPD covering the time period from March 2011 through July 2015. The tenth Status Report (attached as **Appendix B**) documents the tenth semi-annual groundwater, seep, and surface water monitoring event conducted in December 2015. With submittal of this tenth Status Report, Thermo King has completed five years of monitoring required under the VRP. In accordance with Georgia VRP Statue 12-8-107(e) upon completion of corrective action under VRP, the participant shall cause to be prepared a compliance status report confirming consistency of the corrective action with the provisions, purposes, standards, and

policies of the voluntary remediation program and certifying the compliance of the relevant voluntary remediation property with the applicable cleanup standards in effect at the time.

2.0 SITE BACKGROUND

2.1 Property Description

The Site is located on approximately 110.5 acres in eastern central Georgia at 1430 Highway 24 East, Louisville, Jefferson County, Georgia (**Figure 2.1-1**). The Site geographic coordinates are 33º 0‘ 10“ North latitude 81º 23‘ 16“ West longitude [United Stated Geologic Survey (USGS) Topographic Quadrangle, Louisville, Georgia 1948, Photorevised 1980. The western portion of the Site has ground surface elevations ranging from approximately 330 to 335 feet, NAVD and slopes to the east down to approximate ground elevations of 245 to 250 feet, NAVD, along Manson Branch. The ground surface then rises to the east, beyond Manson Branch.

The majority of the acreage is woodlands with the manufacturing activities occupying the north central and northwestern portions of the Site (**Figures 2.1-1 and 2.1-2**). The main manufacturing building with approximately 300,000 square feet under roof is constructed on a concrete slab with metal walls. A wastewater treatment facility is a separate building located to the east of the main building and housed wastewater treatment machinery and chemicals used in the treatment process. There are also roofed open-sided storage sheds located on the west, south and east sides of the main building that were used for the storage of materials and equipment, and as testing chambers for finished units. An aboveground tank containing water for fire-fighting purposes is located to the northwest of the main building. Paved parking areas are located on the northwest and east sides of the main building. Uncovered and paved areas located on the west, south and east sides of the main building are used for open storage of metal materials and equipment. An eight-foot high chain-link fence encloses the main building and storage areas.

The area immediately surrounding the Thermo King Site is residential, agricultural and woodlands. The Site is bounded on the north by Highway 24 and a residential area (across Highway 24) with single-family homes. The Site is bounded on the east beyond Manson Branch with a few single-family homes and woodlands. Lizzie Quarterman and Tommie Quarterman own the property adjacent to Thermo King’s northeast corner and the Ethel Clark estate owns the property adjacent to Thermo King’s east and south boundaries. To the south beyond the Clark estate, are more fields and woodlands. Woodlands owned by the Louisville Chamber of Commerce bound the Site to the west. Beyond these adjacent and near-site properties, the areas further to the east and south become more rural. Residential development increases to the north. The City of Louisville and associated residential and commercial development are to the west.

The woodlands surrounding the building are a combination of pines with a few hardwoods. The majority of the woodland areas have a thick growth of scrub brush with small trees, briars, and hedges. Manson Branch, a tributary to the Ogeechee River, is a small swamp-like stream flowing from north to south through the eastern part of the Site. Beavers have constructed dams along the stream’s reach between Highways 24 and 17, intermittently impounding the flow and flooding the low-lying areas adjacent to the stream.

2.2 Site History of Land Use and Operations

Prior to being developed for industrial use, some of the eastern parcel of the property was cleared of vegetation for agricultural use. In 1961, the Draper Corporation constructed the initial plant building and manufactured tiller tractors and lawn mowers. In 1965, Westinghouse Electric Corporation (parent company of the Thermo King Corporation) purchased the Louisville facility from Draper. Westinghouse Electric Corporation owned and operated the Louisville facility under the name of Thermo King Corporation from 1965 to 1997. Ingersoll Rand Company purchased the Thermo King Corporation from Westinghouse in 1997. Thermo King manufactured mobile refrigeration units at this location from 1965 until November 2012. The facility is currently closed and is for sale.

The Thermo King Louisville facility manufactured refrigeration units that were used to refrigerate cargo container boxes, tractor-trailers, and buses. Manufacturing activities included metal fabrication, machining, welding, deburring, cleaning, painting, assembly, and testing of finished refrigeration units. Solvents were used at the Site from 1965 until 1997 to remove oils from machined metal components. The solvents (toluene, xylenes, trichloroethene and 1,1,1-trichloroethane) were stored in aboveground storage tanks, located on a paved area on the east side of the main building (**Figure 2.1-2**).

For varying periods of time, up to 1997, solvents were used in three vapor degreasers located inside the manufacturing building (**Figure 2.1-2**). A prototype degreaser that reportedly used trichloroethene was installed on the west side of the building in 1966-1967, used for approximately nine months, and then removed from the facility. Later in 1967, a side-by-side coil degreaser that used trichloroethene was installed on the east side of the building (**Figure 2.1-2**). In 1980, the side-by-side coil degreaser was removed from service and from the building and later sold for scrap in 1982. Also in 1980, an elevator degreaser was installed in an equipment pit on the east side of the building and a coil degreaser (compressor/cross-rod degreaser) was installed on the west side of the building (**Figure 2.1-2**). In 1988, the two remaining degreasers were converted from use of trichloroethene to 1,1,1-trichloroethane as a cleaning solvent. The 1,1,1-trichloroethane contained 1,4-dioxane as a stabilizing compound. The compressor degreaser on the west side of the building was removed from the facility in 1995. No documentation was available on the removal of this degreaser. The elevator degreaser on the east side of the building was removed in 1997 and the equipment pit was backfilled. The 1997 degreaser removal and associated soil sampling and analyses are described in Section 2.4.1 of the 2007 Revised CSR (**Appendix A**). Since 1997, no chlorinated solvent degreasers have been operated at the Thermo King Site. There are no records of underground storage tanks having been used at the Site.

A wastewater treatment facility was constructed in 1970 on the east side of the property to precipitate metals from wastewater prior to discharge to the City of Louisville publicly-owned treatment works (POTW). A settling pond approximately 100 feet square was also constructed on the east side of the property that was reported to be used in conjunction with the wastewater treatment operations. This now closed pond is referred to as the South Settling Pond (**Figure 2.1-2**). The facility connected to the City of Louisville POTW in 1970 and began discharging

treated wastewater to the city. In 1983, Thermo King discontinued use of the former South Settling Pond and closed it.

In 1997, VOCs were detected in the shallow soils beneath the floor slab of an equipment vault when a degreaser was removed. In early 2000, limited soil and groundwater sampling and analyses were conducted as part of the sale of Thermo King to Ingersoll Rand. Trichloroethene, toluene, and chloroform were detected in groundwater in the uppermost water-bearing zone. The detection of VOCs in groundwater prompted further soil and water environmental investigations from 2000 to the present.

2.3 Summary of Investigations and Delineations of Constituents in Soil and Groundwater, Seeps and Surface Water

Site operations involving chemical storage and use in the areas of the former degreasers located inside the manufacturing building, aboveground tanks adjacent to the east side of the manufacturing building, and from a former settling pond located east of the building have resulted in impacts of VOCs to the soil and groundwater beneath the Site. The investigation and monitoring of the VOC releases and the extent of VOC impacts in soil, groundwater, and seeps on the Thermo King Site initiated in 2000 continues to the present. The first investigation was part of real estate due diligence conducted in early 2000. Subsequent investigations were conducted under the HSRA and VRP programs to delineate constituents in the subsurface and gather data for concentration trends and verification of the fate-and-transport modeling. Through 2015, investigations have included the drilling of 89 borings for soil and/or groundwater sampling; analysis of 129 soil samples, installation and sampling of 28 permanent monitoring wells; analysis of 279 groundwater samples, and 256 water samples from seeps and surface water from Manson Branch. **Figure 2.1-2** presents the sampling locations across the Site. The 2007 Revised HSRA CSR and the VRP Application and Addendum included as **Appendix A** of this CSR provide descriptions, analytical results, and location maps of the investigation conducted through 2010.

2.3.1 Soil Investigations and Delineation

Soil samples from across the Louisville Site were collected and analyzed for VOCs. Chlorinated VOCs, primarily TCE, cis-1,2-dichloroethene, 1,1,1-trichloroethane, 1,1-dichloroethene, and 1,4-dioxane were detected in soils. **Tables 2.3-1 and 2.3-2** of this CSR summarize the soil results; **Figure 2.3-1** illustrates the distribution and delineation of the surface and subsurface soil impacts. No soils have been excavated or treated for remediation purposes under HSRA or VRP and the data shown in **Tables 2.3-1 and 2.3-2 and on Figure 2.3-1** are current for the Site conditions. Soil concentrations have been delineated horizontally to non-detect concentrations under the HSRA program. The vertical extent of soil impacts extends down to the Uppermost water-bearing zone as indicated on hydrological profiles A-A' through D-D' in Section 3. Per the VRP requirement, the impact of VOCs in soils has been delineated.

2.3.2 Groundwater Investigations and Delineation

Groundwater at the Louisville has been investigated using temporary and permanent monitoring wells installed across the Site. Three water-bearing zones have been identified, Uppermost,

Intermediate, and Lower zones (UWBZ, IWBZ, and LWBZ). Permanent monitoring wells were installed and sampled in the three zones. Chlorinated VOCs, primarily TCE, cis-1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride were detected in the groundwater samples **(Table 2.3-3)**. Impacts to groundwater in the UWBZ are present beneath the manufacturing building and extend to the east where the Uppermost groundwater discharges to seeps on the eroded slope above the west bank of Manson Branch (**Figure 2.3-2**). No impacts have been detected in Manson Branch. Impacts in the IWBZ are to groundwater located beneath and around the area of the former south settling pond (**Figure 2.3-3**). Impacted IWBZ groundwater flows to the southwest. No impacted groundwater in either zone flows off-site. No impacts to Lower water-bearing zone groundwater were detected. The horizontal and vertical extent of VOCs in groundwater in the Uppermost and Intermediate water-bearing zones have also been delineated to non-detect concentrations as indicated on hydrological profiles A-A' through D-D' in Section 3. Per the VRP requirement, the impact of VOCs in groundwater has been delineated.

2.3.3 Investigations of Groundwater Seeps on the Western Slope of Manson Branch

Groundwater from the UWBZ is perched on a tan to blue-gray clay unit. The UWBZ daylights along the eroded slope above the west bank of Manson Branch where groundwater discharges as seeps. VOCs were detected in those seeps located downgradient of the former south settling pond and monitoring well MW-19. The groundwater from the seeps has been sampled and analyzed from 2000 to the present **(Table 2.3-4)**. The detected VOC concentrations in the seeps are somewhat less than the VOC concentrations in the groundwater in monitoring wells upgradient of the seeps. The extent of VOCs in the seeps is shown on **Figure 2.3-2**. Those seeps with VOC concentrations greater than the Georgia In-stream Water Quality Criteria (ISWQC) are covered by a rip-rap blanket constructed of cobble-size pieces of granite.

2.3.4 Investigation of Groundwater in Colluvial/Alluvial Soils West of Manson Branch

Historic erosional processes responsible for the development of the present Manson Branch drainage "valley" cut down approximately 80 feet through the sandy strata in which the UWBZ is perched, into the top of the underlying, more erosion-resistant clays, thereby truncating the continuity of the Uppermost Zone. Upon encountering the more resistant clayey strata, the erosional action of the flowing water migrated side to side (rather than continuing vertically), resulting in the formation of a several hundred feet wide "valley" floor through which Manson Branch now flows. Over time, several feet of a surficial mix of colluvial sandy soils washed down from the adjacent slopes and alluvial soils from Manson Branch were deposited over the clays. As a result of the erosional processes described above, the formation in which the UWBZ is perched day-lights (outcrops) on the hill-side slope to the west of Manson Branch where UWBZ groundwater discharges to seeps along and at the base of the slope. Field observations show that the flow eastward from the seeps toward Manson Branch occurs as intermittent and interrupted surface flow and as flow within the colluvial/alluvial soils to Manson Branch **(Hydrologic Profile AA-AA')**.

Monitoring wells MW-15 and MW-16 were installed on the east side of Manson Branch to investigate if VOCs had migrated to the east of the stream in the UWBZ. The wells were installed

to the top of a blue-gray clay and were screened in the colluvial/ alluvial soils. VOCs were not detected in wells MW-15 and MW-16 to the east of Manson Branch. At the request of EPD, monitoring wells MW-26, MW-27, and MW-28 were installed in the colluvial/alluvial zone upgradient of Manson Branch to further evaluate VOCs concentrations of potential concern to surface water in Manson Branch emanating from the upgradient UWBZ and the seeps. The three wells were installed in October 2010 and are shown on **Figure 2.1-2**. Well MW-26 is some 300 feet north of the area where VOC concentrations in seep water are of potential concern. Wells MW-27 and MW-28 are located east (down slope) of the erosional gully and Seeps C and Manson Branch #2 (MB#2) where the highest VOC concentrations in seep samples were detected. The total depth of the wells ranged from 6.5 to 7.5 feet total depth and were installed with five feet of screen and extend down to the top of the blue-gray clay. The VOCs (1,1-dichloroethene, cis-1,2-dichloroethene, and trichloroethene) were detected in wells MW-27 and MW-28 while no VOCs were detected in well MW-26 to the north.

2.3.5 Investigations of Surface Water in Manson Branch

Manson Branch is a tributary to the Ogeechee River and flows from the north to the south along and inside of Thermo King's eastern property boundary. In 2000, samples of the surface water in Manson Branch were collected from the Highway 24 bridge downstream to the Highway 17 bridge and analyzed for VOCs. No VOCs were detected in these samples (2007 HSRA CSR Appendix D). Additional surface water samples have been collected on a quarterly to semi-annual basis from 2000 to the present along the stream reach from the Highway 24 bridge downstream beyond the extent of VOC-impacted seeps. VOCs have not been detected in the surface water samples in 15 years of sampling **(Table 2.3-4)**. The VOCs detected in the UWBZ groundwater and seeps has not impacted the surface water in Manson Branch. Surface water sampling locations are shown on **Figure 2.1-2.**

2.3.6 Risk Reduction Standards

Risk Reduction Standards (RRS) were calculated for soil and groundwater at the Site as required by HSRA **(Tables 2.3-5)**. Soil-sampling locations that had VOC concentrations greater than the soil Types 1 through Type 4 RRSs are located beneath the western and eastern sides in the middle third of the plant building in areas where the degreasers were formerly located. TCE and 1,4-dioxane were the primary VOCs that exceeded RRS in soil. The soil locations with VOC concentrations exceeding Types 1 through Type 4 RRSs are shown on **Figures 2.1-1 and 2.3-4**. 1,4-Dioxane has not been detected in groundwater at the Site. The groundwater sampling locations that had VOC concentrations greater than the groundwater Types 1 through Type 4 RRSs were located beneath the plant building and extending east to and beyond the former south settling pond **(Figures 2.3-2, 2.3-3, and 2.3-4)**. VOCs were not detected in groundwater samples collected from wells located on the east side of Manson Branch or from wells located on the west side of the manufacturing building. Concentrations of 1,1,1-trichloroethane; 1,1-dichloroethene; trichloroethene and vinyl chloride in the groundwater did not meet the Types 1 through Type 4 RRSs. Under the VRP, the Site meets Type 4 RRS with engineering and institutional controls.

3.0 CONCEPTUAL SITE MODEL

The following conceptual site model (CSM) has been developed based on data obtained from investigations conducted at the Site from 2000 to the present **(Figures 3.0-1 through 3.0-6)**. The impacts to the Site soil and groundwater originate from the use and storage of trichloroethene and 1,1,1-trichloroethane used in the metal fabrication manufacturing operations. VOCs were detected in the vadose zone soils and in groundwater in the UWBZ beneath the former degreaser locations located inside the manufacturing building, below the adjacent former paved and covered aboveground storage tank area, and below the former south settling pond. VOCs were also detected in groundwater in the IWBZ. Trichloroethene and cis-1,2-dichloroethene are present in the IWBZ beneath the area of the former south settling pond at concentrations that are less than those in the overlying Uppermost water-bearing zone. Constituents in the IWBZ appear to be the result of vertical migration through the perching/confining clay strata that separates the Uppermost and Intermediate water-bearing zones. A vertically downward hydraulic head of approximately 30 feet exists between the Uppermost and Intermediate water-bearing zones. There are no impacts to Lower water-bearing zone groundwater or to surface water in Manson Branch. **Figures 3.0-2 and 3.0-3** illustrate the CSM showing the soil profile and groundwater flow regime.

The Site is located in the Atlantic Coastal Plain Physiographic Province and is underlain by Late Eocene sediments of the Barnwell Group consisting of the Tobacco Road Sand, the Twiggs Clay and Irwinton Sand. The UWBZ at the Site consists of a saturated brown fine to medium sand that extends to approximate depth of 40 to 60 feet. This sand is underlain by a layer of stiff tan and blue-gray clay (Twiggs Clay). The clayey stratum is approximately 15 feet thick. The groundwater in the UWBZ flows to the east toward Manson Branch and discharges to surface seeps along the eroded slope above the west bank of Manson Branch (**Figure 3.0-3 and Figure 1 in Status Report No. 10 in Appendix B**). The groundwater in the UWBZ has a horizontal gradient of about 0.004 feet/foot and flows at an estimated rate of 4 to 12 feet per year.

The next deeper water-bearing zone, referred to in this report as the IWBZ zone, is a blue-gray silty clayey fine to coarse sand stratum about 20 to 25 feet thick. Groundwater in the Intermediate water-bearing zone flows to the southwest toward the Ogeechee River (**Figure 2 in Status Report No. 10 in Appendix B**). The Ogeechee River is about 1.5 miles southwest of the Thermo King Site. The gradient in the IWBZ is about 0.0023 feet/foot and flows at an estimated rate of about 17 feet per year.

A deeper boring/monitoring well was installed to investigate for water-bearing zones below the IWBZ. Monitoring well MW-24 was installed as a triple-cased well to a depth of 147 feet bgs. The lithology and stratigraphy encountered in well MW-24 below the Intermediate zone consisted of a dark greenish-gray fine sandy silty clay and a limestone layer grading to a saturated greenish-gray clayey silty fine to coarse sand and terminating in a dry light grayish-green fine sandy silt. This water-bearing zone is referred to as the Lower water-bearing zone. The groundwater elevation in the Lower water-bearing zone is about 10 feet lower than the groundwater elevation in the IWBZ and about 40 feet lower than the groundwater elevation in the UWBZ.

The horizontal and vertical extent of VOCs in soils have been delineated to non-detect concentrations (**Figures 2.3-1, 3.0-2 through 3.0-6**). The horizontal and vertical extent of VOCs in groundwater have also been delineated to non-detect concentrations (**Figures 2.3-2, 2.3-3, 3.0-2 through 3.0-6)**. VOCs are contained within the Thermo King property boundaries in both the UWBZ and IWBZ as indicated on **Figures 2.3-1 through 2.3-4**.

4.0 EXPOSURE PATHWAYS

A Screening Level Ecological Risk Assessment (SLERA) was conducted in 2006-2007 and was included in the 2007 HSRA CSR that is included in **Appendix A** of this CSR. The ecological receptor evaluation identified 12 species of animals and 18 species of plants present in Jefferson and surrounding counties that have protected status under Georgia and/or Federal programs. No rare or unusual natural communities were noted in the Louisville, Georgia area by the Georgia Department of Natural Resources. A wetland area is associated with Manson Branch. Ecological receptors could be exposed by contact with or ingestion of VOC-impacted water from seeps or from seeds, vegetation, or insects contaminated by the VOC-impacted water. The ecologic receptors identified at the Thermo King Site include semi-aquatic plants, non-migratory animals or animals with small home ranges, avian predators and potentially game animals that feed on items produced on-site and could potentially be exposed to VOCs. The SLERA indicated the risk from seep water and soil for the Thermo King Site are below the USEPA's benchmark value of 1; thus, ecological risks are unlikely and no further action was recommended.

The exposure assessment identified human populations that may be susceptible to exposure to Site contaminants now and in the future as a result of direct contact with contaminated soils or groundwater at the Site or to vapor intrusion. As described above, the impacted soils and groundwater are contained within the Thermo King property boundaries. Current and future industrial workers are the most likely on-site human receptors. Other incidental on-site receptors include site visitors or interim workers that may go onto the Site for limited periods of time or the occasional trespasser. The potential for residential receptors to be present on the Thermo King property is precluded by the Environmental Covenant.

4.1 Soil Exposure Pathway

VOCs have been detected in subsurface soils located beneath the manufacturing building and beneath a paved and covered former chemical storage area outside and adjacent to the east side of the building. VOCs were also detected in soils in the areas of the former south settling pond. The former pond was graded over and grassed. The potential for exposure to contaminants in soil via fugitive dust is low because the areas where VOCs have been detected are covered with buildings, vegetation, or pavement. The most likely potential exposure pathway to VOC-impacted soils would be via excavation into the soils by site workers. The manufacturing building floor slab and pavement precludes direct exposure of facility personnel to impacted soils exceeding RRS, rendering this potential exposure pathway incomplete. Institutional controls require health and safety measures to be used during soil disturbance to prevent workers exposure to VOCs while excavating Site soils.

4.2 Groundwater Exposure Pathway

The ground water in the UWBZ beneath the Site flows to the east toward Manson Branch. The depth to groundwater in the Uppermost zone is about 35 to 40 feet in the plant operations area. VOCs are present in UWBZ groundwater in areas beneath the manufacturing building and extending east through the former aboveground storage area, former south settling pond, and to

the slope above Manson Branch, where the UWBZ was truncated by erosion as the valley in which Manson Branch flows was formed. There groundwater in the UWBZ discharges to seeps. Fifteen years of monitoring data indicate that VOCs in the Uppermost water-bearing zone are not migrating off-property. Site groundwater is not used as a source of drinking or process water and the depth to groundwater precludes direct exposure. Therefore, potential pathways to groundwater in the UWBZ are incomplete.

Ground water in the IWBZ beneath the Site flows to the southwest toward the Ogeechee River. The depth to groundwater in the Intermediate zone is about 75 feet below ground surface in the plant operations area. Monitoring conducted in the IWBZ since 2003 shows that VOCs have been detected in groundwater from monitoring wells on the east side of the plant, but not in samples from wells on the west, downgradient, side; thereby demonstrating that contaminants in IWBZ groundwater are not migrating off-property. Further, fate and transport modeling of the IWBZ predicts that contaminants will not migrate to the property boundary at concentrations exceeding MCLs before the plumes begin to recede.

Private water-supply wells near the Site and the six City of Louisville municipal water supply wells (located generally to the southwest of the Site) were sampled for VOCs in 2000. No VOCs were detected (2007 HSRA CSR-Appendix D). Based on these test data, the results of the IWBZ groundwater monitoring program, and the predictions of the fate and transport modeling, it is concluded that potential pathways to Intermediate zone groundwater, potentially exceeding MCLs, are incomplete.

4.3 Vapor Intrusion Exposure

In 2010, Thermo King conducted a risk evaluation for potential indoor air exposure to workers in the manufacturing building from soil and groundwater contamination underlying the building. The evaluation was conducted in accordance with the February 22, 2004 USEPA “User’s Guide for Evaluating Subsurface Vapor Intrusion into Buildings” including the use of the Johnson and Ettinger model. The evaluation concluded that the resulting hazard indices and incremental risk values were acceptable and estimated indoor air concentrations would not exceed OSHA exposure limits for ongoing facility operations.

In December 2014, an investigation was conducted to further evaluate the presence of volatile organic compounds beneath the former manufacturing building floor slab. The results indicated that further evaluation and possible mitigation would have to be performed to accommodate future building users. Therefore, an addition was made to the environmental covenant requiring a new vapor intrusion risk assessment to be performed to evaluate this risk pathway prior to initiating new operations or reuse of the building structures or footprint.

The facility is currently vacant, so this exposure pathway is incomplete.

5.0 VOLUNTARY REMEDIATION PROGRAM ACTIVITIES

The Thermo King Site was accepted into the VRP in March 2011. Several investigative and corrective action tasks have been implemented at the Thermo King Site as required by the VRP. These tasks are described below.

5.1 Investigative Tasks

Several administrative and investigative tasks were conducted as required by the VRP and to obtain data for use in a fate-and-transport model for plume migration. These activities were previously documented in the VRP Application and Addendum and in Status Reports Nos. 1 through 10 and are summarized below.

5.1.1 Administrative Tasks

Administrative tasks required to be implemented under the VRP were:

- EPD requested in the March 10, 2011 approval letter accepting the Site into the VRP that documentation of the financial assurance for implementation of the VRP remediation measures be submitted. The Financial Assurance for Implementation of the VRP corrective actions (cost estimate and letter of credit) was submitted to EPD on May 5, 2011. EPD confirmed their acceptance of the financial assurance in a letter dated June 15, 2011.

- EPD requested in their March 10, 2011 approval letter that an affidavit stating that the property had been listed on the HSI and was designated as needing corrective action due to the presence of hazardous waste, constituents or substances regulated under state law. The affidavit to the property deed denoting the Site is on the HSI and needing corrective action was prepared and recorded with the Clerk of the Superior Court of Jefferson County, Georgia on May 31, 2011. The receipt documenting the recording and a copy of the affidavit was submitted to EPD on June 14, 2011.

5.1.2 Investigation and Monitoring Activities

In accordance with the VRP Remediation Plan, additional investigative activities were conducted to obtain data for fate-and-transport modeling. These included installation of an Intermediate zone well in the pond area, installation of three wells in the colluvial/alluvial zone near Manson Branch, in-situ hydraulic conductivity tests, identification of a point of demonstration well, and five years of groundwater, seep and surface water monitoring.

- IWBZ monitoring wells MW-14 and MW-20 were located up and downgradient, respectively, of the former south settling pond. Monitoring well MW-25 was installed in June 2010 to obtain groundwater quality in the IWBZ in the area of the former south settling pond. The well was double-cased through the Uppermost zone to prevent carrying VOCs from that zone into the deeper Intermediate zone and was installed to a total depth of 107 feet with 15 feet of well screen. Well MW-25 is located adjacent to monitoring wells MW-5 (Uppermost zone) and MW-24 (Lower zone) and is shown on **Figure 2.1-2**. The details of the construction are

provided in the Addendum to the VRP Application in **Appendix A** of this CSR. The well has been sampled and analyzed routinely since 2010.

- Groundwater in the UWBZ discharges to seeps from which water flows toward Manson Branch through interrupted surface flow and as groundwater flow in the colluvial/alluvial soil strata. At the request of EPD, monitoring wells MW-26, MW-27, and MW-28 were installed in the colluvial/alluvial zone upgradient of Manson Branch to further evaluate VOCs concentrations of potential concern to surface water in Manson Branch emanating from the upgradient UWBZ and the seeps. The three wells were installed in October 2010 and are shown on **Figure 2.1-2**. Well MW-26 is some 300 feet north of the area where VOC concentrations in seep water are of potential concern. Wells MW-27 and MW-28 are located east (down slope) of the erosional gully and Seeps C and MB #2 where the highest VOC concentrations in seep samples were detected. The total depth of the wells ranged from 6.5 to 7.5 feet and were installed with five feet of screen. The details of the construction are provided in the Addendum to the VRP Application in **Appendix A** of this CSR.

- In June 2010, in-situ hydraulic conductivity testing was conducted in IWBZ wells MW-17, MW-20, MW-22, MW-23, and MW-25 to obtain more data for use in the fate-and-transport modeling. The description of the testing method and results are presented in the Addendum to the VRP Application included in **Appendix A** of this CSR.

- Semi-annual sampling and analysis of groundwater, seep, and surface water has been conducted per the VPR Remediation Plan from June 2011 through December 2015. The following 10 monitoring wells were sampled and analyzed, usually in January and June-July: MW-3, MW-5, MW-10, MW-14, MW-19, MW-20, MW-22, MW-25, MW-27, and MW-28. The wells were sampled using low flow/low stress methodology and either bladder or peristaltic pumps. The groundwater samples were analyzed for the site-specific list of VOCs; wells MW-5, MW-14, MW-19, MW-20, MW-25, MW-27, and MW-28 were also analyzed for 1,4-dioxane using the select ion monitoring method (SIM), Water levels were measured in 28 permanent monitoring wells and at two surface water locations on Manson Branch (**Table 1 in Appendix B**). Eight seeps locations (Manson Branch #2, Seep B, Seep C, Seep G, Seep H, Seep I, Seep L, and Seep #2) were originally sampled and analyzed for the site-specific list of VOCs. Sampling of Seep C was discontinued after January 2012 when the rip-rap blanket was constructed over the seep. Surface water samples were collected from four locations (MB#3, MB#5, MB#15, and MB#16) along Manson Branch. The results of the 10 VRP sampling events are presented in VRP Status Reports Nos. 1 through 10 and are summarized on **Tables 2.3-3 and 2.3-4** in this CSR. The laboratory reports for the VRP sampling events are provided **in Appendix C** of this CSR. VRP Status Report No. 10 is included in **Appendix B.**

5.2 VRP Corrective Actions

Corrective actions were implemented under the VRP to eliminate exposure to VOC concentrations in soil and water that do not meet RRS values. Because the facility is currently unoccupied, there is no exposure pathway for vapor intrusion. Should the manufacturing building be re-occupied in the future, the potential for vapor intrusion will be reassessed and if concentrations are potentially above the current Georgia EPD regulatory guidance/thresholds, a vapor mitigation/remediation system or barrier will be installed and maintained. For the Thermo King Site a combination of engineering and institutional controls constitute the corrective actions. The corrective actions include modeling to demonstrate that VOC-impacted groundwater will not migrate off the property at concentrations above regulatory levels; the construction of a rip-rap blanket over the groundwater seeps where VOC concentrations exceed Georgia ISWQC; designation of the manufacturing building floor slab as an exposure barrier to soil beneath the building; and application of an environmental covenant to the property. These actions are described in the following sections.

5.2.1 Groundwater Modeling

5.2.1.1 Modeling Contaminant Migration in the Uppermost Water Bearing Zone

Groundwater in the UWBZ flows from west to east, from the western Site boundary, beneath the former manufacturing building, and towards Manson Branch. UWBZ flow is interrupted west of Manson Branch where the sandy stratum in which groundwater flows is truncated, discharging groundwater to seeps along the slope and floor of the west side of Manson Branch. From the seeps, flow continues to the east as intermittent and interrupted surface flow within the thin colluvial/alluvial soils that form the valley floor. Ultimately, UWBZ water expressed in seeps and then as discontinuous flow through the valley-bottom soils discharges into Manson Branch. This flow path is illustrated on **Figures 3.0-2 and 3.0-3**.

The modeling approach and calculations of the movement of water and associated contaminants in the UWBZ discharge to Manson Branch are presented in **Appendix D**. The modeling has shown that the discharge of groundwater from the UWBZ will not result in impacts to Manson Branch for TCE or regulated daughter products that will exceed their respective ISWQC.

5.2.1.2 Modeling Contaminant Migration in the Intermediate Water Bearing Zone

The future fate and transport of the constituents of concern (COCs) in the IWBZ underlying the Site was modeled using software program BIOCHLOR. This model was used because of the clear evidence of biodegradation, namely a decrease of TCE concentrations downgradient of the source area and presence of the degradation products of TCE, cis-1,2-DCE and VC. The model predicts the maximum extent of dissolved-phase plume migration, which may then be compared to the distance to potential points of exposure (e.g., drinking water wells, groundwater discharge areas, or property boundaries). Using conservative input parameters, the fate and transport modeling for the three COCs (TCE, cis-1,2-DCE, and VC) shows that the predicted concentrations of plume constituents will not exceed their respective MCLs at the property line, the point of exposure. Modeling for each constituent was projected forward in time until the maximum

distance of migration was reached and the plume retreated. The TCE and cis-1,2-DCE plumes are predicted to begin to recede around approximately after 2115; the VC plume is predicted to begin to recede approximately after 2100.

5.2.2 Rip-Rap Blanket

Groundwater from the UWBZ discharging to seeps on the slope above the west bank of Manson Branch constituted a potentially complete exposure pathway to ecological receptors. However, a Screening Level Ecological Risk Assessment (SLERA) conducted in 2006-2007 (reported in 2007 HSRA CSR) determined that the risk from impacted seep water and soils are below USEPA's hazard index of 1; thus, ecological risks are unlikely and no further action to assess potential ecological risks was recommended.

VOC concentrations exceeding Georgia ISWQC were detected in Seeps C, H, and Manson Branch #2 (MB#2). Therefore, these seeps were covered with a rip-rap blanket as an engineering control to preclude the surface expression of seep waters exceeding Georgia ISWQC. Seep sampling is conducted to confirm that VOC concentrations in samples from seeps downgradient from the rip-rap blanket are below ISWQC. **Figure 2.3-4** depicts the extent of the rip-rap blanket.

Construction of the rip-rap blanket was initiated in February 2012 and completed in May 2012. Construction activities consisted of constructing a gravel access road, placing rip-rap in the areas around Seep MB #2, Seep C, and Seep H, re-grading the embankment upgradient of Seep MB #2, installing a rip-rap flume to channel storm water toward the rip-rap blanket around Seep MB #2, installing a rip-rap berm at the base of the flume to function as a sediment catch-basin, installing seep monitoring points (2-foot diameter perforated plastic pipes) around Seep MB #2 and Seep H (a monitoring point was not installed at Seep C), and installing final sediment and erosion control measures (seeding and matting) in the disturbed areas. Inspections will be conducted annually with additional inspections following a 25-year 24-hour rainfall event to confirm the physical condition of the blanket and to verify if the rip-rap blanket is functioning as intended to limit the surface expression of groundwater in the seep areas covered with rip-rap. The inspection form is provided in **Appendix H.**

5.2.3 Building Slab Exposure Barrier

Soil-sampling locations with concentrations of 1,4-dioxane and TCE that exceed Type 1 through Type 4 RRS are located beneath the east and west sides of the manufacturing building floor slab in areas of former degreaser operations (see **Figure 2.3-4**). The floor slab functions as a control to preclude direct exposure of facility personnel to impacted soils, and thus renders potential exposure pathways to soil beneath the floor slab incomplete. Therefore, the floor slab has been designated as an exposure barrier, and any future facility operations that require penetration of the floor slab must be conducted using a health and safety plan prepared specifically for the proposed barrier-affecting activity. Any floor slab penetrations must be repaired in a manner consistent with its designation as an exposure barrier. Annual inspections to verify the integrity of the floor slab are also required. The floor slab inspection forms are provided in **Appendix H.**

5.2.4 Environmental Covenant

An environmental covenant has been prepared, in accordance with the Georgia Uniform Environmental Covenants (UEC) Act, as an institutional control to further control exposure to contaminants at the Site. Specifically, the environmental covenant functions to limit exposure by:

- prohibiting residential use of the property
- restricting the use of site groundwater for all but remediation-related purposes
- designating the building floor slab as an exposure barrier to the underlying impacted soils
- requiring a re-assessment of potential vapor intrusion in the event of future occupation
- restricting the surface expression of seep water containing constituents at concentrations exceeding ISWQC by placement of an overlying rip-rap blanket

A copy of the draft environmental covenant was mailed on July 28, 2014 to the abutting property owners, parties with an interest in the property (Georgia Power), the City of Louisville Mayor and Jefferson County Commission Chairman and County Manager, and no comments were received. The final covenant was signed by Thermo King in October 2015, and was forwarded to EPD for signature on October 29, 2015 (**Appendix F**). Signature of the covenant by EPD is pending.

6.0 RESULTS OF VRP CORRECTIVE ACTIONS AND PATH FORWARD

6.1 Engineering Controls

1. The manufacturing building floor slab prevents direct contact with sub-slab soils impacted or potentially impacted by releases from former manufacturing operations. Annual inspections conducted in accordance with the Inspection and Maintenance Plan provides for a visual inspection of the condition of the floor slab and for maintenance, if required, to provide assurance that the floor slab continues to function as an exposure barrier (control). The results of the annual inspection is certified by a licensed engineering professional.

2. The rip-rap blanket functions to preclude surface expression of seeps where constituent concentrations exceed ISWQC. Annual inspections and additional inspections following a 25-year 24-hour rainfall event will be conducted in accordance with the Inspection and Maintenance Plan to document that the condition of the rip-rap blanket is maintained and that it continues to function as designed. Where required, maintenance will be performed and documented. The results of these inspections will be certified by a licensed engineering or environmental professional.

6.2 Modeling of Groundwater Flow in the Uppermost Water-Bearing Zone to Manson Branch

Analysis of samples collected from wells installed in the UWBZ, in seeps, in colluvial/alluvial wells, and in Manson Branch have been conducted twice a year through the 5-year period following acceptance of the Site into the VRP and approval of the VIRP on March 10, 2011. Sampling data from as far back as 2000 is also available from some wells and from seeps as far back as 2000. Site investigations have shown that groundwater in the UWBZ flows west to east, from the western property boundary, beneath the manufacturing building and the former south settling pond to discharge as seeps on the eroded slope above the west side of Manson Branch. Water flows from these seeps as interrupted and intermittent surface and subsurface flow through the colluvial/alluvial soils to discharge into Manson Branch.

Modeling of the flow of water and associated contaminants from the UWBZ to Manson Branch is provided in Section 5.2.1.1 and **Appendix D** of this CSR. This modeling shows that Manson Branch is not currently and (based on an assessment of groundwater analytical data from the Site) is not expected in the future to be impacted at concentrations exceeding ISWQC. Accordingly, Thermo King proposes that sampling of groundwater in the UWBZ and in the colluvial/alluvial wells be discontinued.

6.3 Fate and Transported Modeling of Flow in the Intermediate Ground-Water Zone

As required by the VIRP, analysis of samples collected from wells installed in the IWBZ have been conducted twice a year through the last 5 years. Data from some of these wells is available from 2003 to the present. Site investigations have shown that groundwater flow in the IWBZ is from east to west-southwest. The source of constituents in the IWBZ is thought to be the result of

downward infiltration of constituents from the overlying UWBZ, specifically, from the area of the south settling pond and to the east of the pond (**Figure 2.3-3**). From this IWBZ "source area", constituents flow to the west. The primary IWBZ constituents are TCE, cis-1,2-dichloroethene, and vinyl chloride. Figures in Status Report No. 10, **Appendix B** of this CSR, show trends in constituent concentrations. With the exception of cis-1,2-dichloroethene in monitoring well MW-20, TCE and cis-1,2-dichloroethene concentrations have decreased with time. Constituents have not been detected in the downgradient Point of Demonstration (POD) well MW-22.

Fate and transport modeling was conducted (using conservative assumptions and input values) to evaluate whether or not constituents in the IWBZ will migrate off-property before the plumes begin to retreat (See Section 5.2.1.2 of this CSR and **Appendix E**). The modeling demonstrates that the plumes (TCE, cis-1,2-dichloroethene, and VC) will begin to retreat before reaching the property line at concentrations exceeding their respective MCLs. The modelling predicts that the plumes will migrate to their maximum extent in the time periods as follows (approximately 2115 for TCE, and cis-1,2-DCE and approximately 2100 for VC). Accordingly, Thermo King proposes that sampling groundwater in the IWBZ be discontinued.

6.4 Seep Sampling

Seep sampling results from late 2011 through 2015, presented on Figures 7 through 12 in Status Report No. 10 (**Appendix B**), illustrate seep concentrations of TCE, cis-1,2-dichloroethene, 1,1-DCA, 1,1- DCE, toluene, and vinyl chloride. With the exception of toluene, these are the constituents most frequently detected in the UWBZ. Toluene was detected in most seep samples collected in 2012 and early 2013 around the time plant closure activities and rip-rap blanket construction activities were being conducted. Thereafter, toluene was rarely detected and at low concentrations. Toluene was detected in only one 2015 seep sample, that from Seep B at a concentration of 1.7 µg/L.

Overall, the concentrations of chlorinated VOCs in seep samples have been relatively stable to decreasing during this period. Constituents exceed ISWQC at two locations; TCE in samples from Seep H and vinyl chloride in samples from seep MB#2. Both of these seeps are covered by the rip-rap blanket to preclude the surface expression of seep water at concentrations exceeding ISWQC. From late 2011 to the present, TCE concentrations in Seep H have fluctuated between 157 µg/L and 800 µg/L; the most recent concentration was 275 µg/L. versus the TCE ISWQC of 30 µg/L. During the same interval, vinyl chloride concentrations at MB#2 have ranged between 2.5 µg/L and 84 µg/L; the most recent concentration was 30.6 µg/L, versus its ISWQC of 2.4 µg/L. The three seeps located downslope from Seeps MB#2 and Seep H are Seep# 2, Seep G, and Seep I. The most recent TCE/VC concentrations in these three seeps (December 2015) are (6.9 µg/L/1 µg/L), (1 µg/L/<1 µg/L), and (<1 µg/L/<1µg/L), respectively. These concentrations are below their respective ISWQC.

While the concentrations of TCE and vinyl chloride in Seeps H and MB#2, respectively, have decreased, concentrations fluctuate and remain above their respective ISWQC. Accordingly, Thermo King proposes to monitor the seeps annually for 5 additional years to further evaluate seep concentration trends and to confirm that seep concentrations outside of the rip-rap blanket

remain below ISWQC. At that time, a path forward will be assessed considering seep concentration trends and a comparison of concentrations versus ISWQC.

6.5 Institutional Controls - Environmental Covenant

As part of the corrective actions, an environmental covenant will be executed on the Thermo King Louisville property to eliminate exposure pathways by:

- prohibiting residential use of the property
- restricting the use of site groundwater for all but remediation-related purposes
- designating the building floor slab as an exposure barrier to the underlying impacted soils
- requiring a re-assessment of potential vapor intrusion in the event of future occupation
- restricting the surface expression of seep water containing constituents at concentrations exceeding ISWQC by placement of an overlying rip-rap blanket

6.6 Financial Assurance

Thermo King currently has financial assurance already in place for the implementation of VRP corrective measures. The financial assurance will remain in place through the next five years (post-VRP period) to provide for the inspection and maintenance of the engineering controls and the monitoring and reporting of seeps monitoring results. **Table 6.0-1** shows proposed activities and an estimate for the cost of the monitoring, inspections, and reporting for the post-VRP period.

6.7 Summary

In the five years following acceptance into the VRP, the following have been achieved:

1. Monitoring of constituents in groundwater, seep, and surface water has been conducted semi-annually for the 5-year VRP period and reported in 10 VRP Status Reports.

2. Seeps have been identified where constituents exceed ISWQC. These seeps are currently covered by the rip-rap blanket.

3. Evaluation of contaminant migration from the UWBZ to surface water using conservative assumptions and input parameters has been conducted. The evaluation demonstrates that Manson Branch will not be impacted by discharges from the UWBZ at concentrations exceeding ISWQC.

4. Fate and transport modeling of contaminants in the lWBZ using conservative assumptions and input parameters has been conducted. The modeling demonstrates that plumes will begin to retreat before contaminants reach the property line at concentrations exceeding MCLs.

5. An Environmental Covenant will be executed for the Site that will further control potential exposure pathways (see Section 6.5).

6. The manufacturing building floor slab has been designated as an engineering control to prevent direct exposure to impacted soils beneath the floor slab.

7. A rip-rap blanket has been installed as an engineering control to preclude the surface expression of seep waters containing constituents at concentrations exceeding ISWQC.

Based on the above results, Thermo King requests that groundwater monitoring in the UWBZ and IWBZ be terminated. Existing data and conservative evaluations of fate and transport demonstrate that it is no longer necessary to monitor the groundwater pathways further (Sections 4.2 and 5.2).

The following actions are proposed to implement the remedy:

1. Floor Slab Management: An annual inspection is required to visually inspect and certify the condition of the building floor slab. The inspection will be conducted in accordance with the Concrete Slab Inspection Checklist. If repairs are necessary, they will be completed in accordance with Sub-Slab Soil Management Plan Checklist. These documents are in **Appendix H**.

2. Management of rip rap blanket: The rip-rap blanket will be inspected annually and following rainfall events where the precipitation exceeds the 25-year, 24-hour criteria. These inspections will be conducted in accordance with the Rip-Rap Blanket Maintenance Inspection Checklist (**Appendix H**). Maintenance will be conducted as required to maintain the blanket's integrity.

3. Seep Sampling: Annual seep sampling will be continued to monitor constituent concentration trends and to confirm that seep water in uncovered seeps do not exceed ISWQC (**Appendix G**).

4. The Environmental Covenant presents the land use restrictions to be implemented on the Thermo King property to eliminate exposure to site contaminants and are as follows:

    - prohibiting residential use of the property
    - restricting the use of site groundwater for all but remediation-related purposes
    - designating the building floor slab as an exposure barrier to the underlying impacted soils
    - requiring a re-assessment of potential vapor intrusion in the event of future occupation
    - restricting the surface expression of seep water containing constituents at concentrations exceeding ISWQC by placement of an overlying rip-rap blanket
    - inspecting the Site annually to confirm the land restrictions are in compliance with the environmental covenant

Figure 6.0-1 (below) presents the Post-VRP (next five years) Inspection, Maintenance, and Sampling schedule for continuing these activities.

With the successful completion of the objectives of the revised VIRP, the Site is in compliance with the provisions, purposes, standards, and policies of the program. Upon approval of the VRP CSR, Thermo King requests that EPD remove the Site from the Hazardous Site Inventory.

FIGURE 6.0-1

Post-VRP Inspections and Monitoring Schedule

Year	Task Name		Date to be Conducted
Year 1	Task 1	Submission of Voluntary Remediation Program Compliance Status Report	March 2016
	Task 2	Inspect Manufacturing Building Floor Slab	November 2016
	Task 3	Rip-rap Blanket Inspection	November 2016
	Task 4	Seep Sampling	November 2016
	Task 5	Inspections and Sampling Report	December 2016
Year 2	Task 1	Inspect Manufacturing Building Floor Slab	November 2017
	Task 2	Rip-rap Blanket Inspection	November 2017
	Task 3	Seep Sampling	November 2017
	Task 4	Submission of Annual Inspections and Sampling Report	December 2017
Year 3	Task 1	Inspect Manufacturing Building Floor Slab	November 2018
	Task 2	Rip-rap Blanket Inspection	November 2018
	Task 3	Seep Sampling	November 2018
	Task 4	Submission of Annual Inspections and Sampling Report	December 2018
Year 4	Task 1	Inspect Manufacturing Building Floor Slab	November 2019
	Task 2	Rip-rap Blanket Inspection	November 2019
	Task 3	Seep Sampling	November 2019
	Task 4	Submission of Annual Inspections and Sampling Report	December 2019
Year 5	Task 1	Inspect Manufacturing Building Floor Slab	November 2020
	Task 2	Rip-rap Blanket Inspection	November 2020
	Task 3	Seep Sampling	November 2020
	Task 4	Submission of 5-yr Results and Recommendations for Path Forward	December 2020

Notes:

(1) Seeps MB #2, Seep B, Seep G, Seep H, Seep I, and Seep L will be sampled.

(2) Additional rip-rap blanket inspections will be conducted following a 25-year 24-hour rainfall event

TABLES

TABLE 2.3-1: Summary of Detected Constituents in Surface Soil

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs Value (µg/kg)	GW-E-1 SO-E-1 0'-2' 9/25/2000	GW-E-4 SO-E-4 0'-2' 9/27/2000	GW-E-13 SO-E-13 0'-4' 10/9/2000	GW-AOC 1-1 SO-AOC 1-1 0'-2' 10/31/2000	GW-AOC 2-1 SO-AOC 2-1 0'-2' 10/17/2000	GW-AOC 3-1 SO-AOC 3-1 0'-2' 10/30/2000	GW-AOC 3-2 SO-AOC 3-2 0'-2' 10/30/2000	GW-AOC 8-1 SO-AOC-8-1 0'-2' 10/11/2000	GW-AOC 8-2 SO-AOC 8-2 0'-2' 10/12/2000	GW-AOC 9-1 SO-AOC 9-1 0'-2' 10/19/2000	GW-AOC 9-2 SO-AOC 9-2 0'-2' 10/20/2000	GW-AOC 10-1 SO-AOC 10-1 0'-2' 10/12/2000	HA-1 HA-1 0.4'-2.1' 3/27/2003	HA-2 HA-2 0.35'-2.1' 3/27/2003
Volatile Organic Compounds SW8260B - (µg/kg)																	
1,1,2-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	500	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
1,1,1-Trichloroethane			170,000	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	24	<1800
1,1-Dichloroethene			6,800	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
1,4-Dioxane			500	<240	<210	<340	250,000	<230	12,000	<11000	<230	<200	<290	<230	<230	<290	1,500,000
cis-1,2-Dichloroethene			7,000	<2.4	<2.1	<3.4	<100	<2.3	<120	600	<2.3	<2.0	<2.9	<2.3	<2.3	<5.9	<1800
Ethylbenzene			70,000	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
Isopropylbenzene			62,000	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
m+p-Xylene			1,000,000	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	NA	NA
Tetrachloroethene			500	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
Trichloroethene			1,800	<4.9	<4.2	<6.8	<210	<4.6	<230	4100	49	12	<5.8	<4.6	<4.6	22	<1800
Total Xylenes			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.9	<1800
Volatile Organic Compounds SW8260B - (µg/L)																	
1,4-Dioxane - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	120000
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0
Tetrachloroethene - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0

TABLE 2.3-1: Summary of Detected Constituents in Surface Soil

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs Value (µg/kg)	HA-3 HA-3 0.35'-2.05' 3/27/2003	HA-4 HA-4 0.42'-1.95' 3/27/2003	HA-5 HA-5 0.4'-2.2' 3/27/2003	HA-6 HA-6 1.2'-2.0' 3/27/2003	HA-7 HA-7 3.0'-5.0' 3/27/2003	HA-8 HA-8 0.0'-0.5' 3/27/2003	SB-2 SB-2 1.5'-3.5' 2/3/2000	SB-101 SB-101 0'-2' 2/6/2003	SB-102 SB-102 0'-2' 1/21/2003	SB-103 SB-103 0'-2' 2/6/2003	SB-104 SB-104 0'-2' 1/21/2003	SB-105 SB-105 0'-2' 1/22/2003	SB-106 SB-106 0'-2' 1/23/2003
Volatile Organic Compounds SW8260B - (µg/kg)																
1,1,2-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	500	26	<5.2	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8
1,1,1-Trichloroethane			170,000	180	46	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8
1,1-Dichloroethene			6,800	23	<5.2	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8	<4.5	9.4	<4.8
1,4-Dioxane			500	14,000 E	1,900	<200	<11000	<14000	<290	NA	<240	<240	<240	<220	<260	<240
cis-1,2-Dichloroethene			7,000	<6.8	<5.2	6	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8
Ethylbenzene			70,000	<6.8	<5.2	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8
Isopropylbenzene			62,000	<6.8	<5.2	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	<5.7	NA	NA	NA	NA	NA	NA
Tetrachloroethene			500	<6.8	<5.2	<4.0	<230	<290	<5.9	13	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8
Trichloroethene			1,800	120	47	110	660	800	<5.9	15	<4.8	<4.7	<4.8	<4.5	10	<4.8
Total Xylenes			1,000,000	<6.8	<5.2	<4.0	<230	<290	<5.9	NA	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8
Volatile Organic Compounds SW8260B - (µg/L)																
1,4-Dioxane - SPLP				NA	NA	NA	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride - SPLP				NA	NA	NA	7.1 B	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene - SPLP				NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-1: Summary of Detected Constituents in Surface Soil

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs Value (µg/kg)	SB-107 SB-107 0'-2' 2/7/2003	SB-108 SB-108 0'-2' 1/24/2003	SB-109 SB-109 0'-2' 1/23/2003	SB-110 SB-110 0'-2' 2/10/2003	SB-111 SB-111 0'-2' 1/22/2003	SB-112 SB-112 0'-2' 1/23/2003	SB-113 SB-113 0'-2' 2/3/2003	SB-113 SPLP SB-113 0'-2' 2/5/2003 µg/L	SB-114 SB-114 0'-2' 2/5/2003	SB-115 SB-115 0'-2' 3/13/2003	SB-116 SB-116 0'-2' 3/12/2003	SB-117 SB-117 0'-2' 3/12/2003	SB-118 SB-118 0'-2' 3/26/2003	Kd-1 Kd-1 2' 4/12/2005	Kd-4 Kd-4 2' 4/12/2005
Volatile Organic Compounds SW8260B - (µg/kg)																		
1,1,2-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	500	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1	<2600	6
1,1,1-Trichloroethane			170,000	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1	<2600	130
1,1-Dichloroethene			6,800	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1	<2600	19
1,4-Dioxane			500	<220	<240	<260	<230	<450	<260	<240	NA	<240	<260	<220	<220	<260	3,600,000	650
cis-1,2-Dichloroethene			7,000	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1	<2600	<5.5
Ethylbenzene			70,000	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1	NA	NA
Isopropylbenzene			62,000	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	16	<4.4	<4.4	<5.1	NA	NA
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene			500	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1	NA	NA
Trichloroethene			1,800	<4.3	<4.8	<5.1	<4.6	<4.5	23	<4.8	NA	130	<5.2	<4.4	<4.4	<5.1	<2600	140
Total Xylenes			1,000,000	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1	NA	NA
Volatile Organic Compounds SW8260B - (µg/L)																		
1,4-Dioxane - SPLP				NA	NA	NA	NA	NA	NA	NA	<400	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	6.6 B	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene - SPLP				NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA

Notes:

AOC	Area of Concern
B	Constituent was detected in QA/QC blank
E	Estimated Concentration; result exceeds the calibration range
GW	Ground Water
NA	Not analyzed for this constituent.
µg/kg	micrograms per kilogram
µg/L	microgram per liter
ft. bgs	feet below ground surface
SPLP	Synthetic Precipitation Leaching Procedure US EPA Method 1312
a)	Borings GW-E-1 to GW-AOC 10-1 (9/25/00 to 11/01/00) sampled by LAW and analyzed by STL North Canton using USEPA method 5035/8260B
b)	Borings SB-1 to SB-10 (02/03/00) sampled by ESC
c)	Borings SB-101 to SB-118, HA-1 to HA-8 sampled by MACTEC and analyzed by STL North Canton using USEPA method 5035/8260B
RRS	Risk Reduction Standards
	Concentration exceeds Types 1-4 RRSs

PREPARED BY/DATE: NJM 3/2/16
CHECKED BY/DATE: JAH 2/23/07

DELINEATION CRITERIA

The delineation of regulated substances released at the site was provided in the 2007 Revised CSR. Volatile organic compounds in surface (0 to 2 feet) soil have been delineated under HSRA Rules (391-3-19-.06(3)(b)2) on the basis of non-detection of these regulated substances above laboratory quantitation limits. Background for anthropogenic organic constituents is non-detect. This delineation is equivalent to VRP delineation criteria 12-8-108(1)(A), background concentrations.

TABLE 2.3-2: Summary of Detected Constituents in Subsurface Soils

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	SB-1 SB-1 10'-11' 2/3/2000	SB-3 SB-3 5'-6' 2/3/2000	SB-4 SB-4 8'-9' 2/3/2000	SB-5 SB-5 8'-9' 2/3/2000	SB-6 SB-6 0'-10' 2/3/2000	SB-7 SB-7 7'-8' 2/3/2000	SB-8 SB-8 7'-8' 2/3/2000	SB-9 SB-9 8'-9' 2/3/2000	SB-10 SB-10 5'-6' 2/3/2000	GW-E-1 SO-E-1 32'-34' 9/25/2000	GW-E-4 SO-E-4 40'-42' 9/27/2000	GW-E-13 SO-E-13 14'-16' 10/9/2000	GW-E-13 SO-E-13 38'-40' 10/9/2000
Volatile Organic Compounds - SW8260B - (µg/kg)																
1,1,1-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	170,000	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6	<5.1	<9.2
1,1,2-Trichloroethane			500	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6	<5.1	<9.2
1,1-Dichloroethene			6,800	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6	<5.1	<9.2
1,4-Dioxane			500	NA	NA	NA	NA	NA	NA	NA	NA	NA	<93	<480	<260	<460
Chloroform			10,000	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<5.0	<5.0	<5.1	<9.2
cis-1,2-Dichloroethene			7,000	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<2.0	<4.8	<2.6	<4.6
Ethylbenzene			70,000	<5.9	360	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6	<5.1	<9.2
m+p-Xylene			1,000,000	<5.9	1400	9.6	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6	<5.1	<9.2
Naphthalene			100,000	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6	<5.1	<9.2
Tetrachloroethene			500	11	<300	<6.2	10	8.4	10	8.2	9.3	9.4	<4.0	<9.6	<5.1	<9.2
Trichloroethene			1,800	160 E	<300	<6.2	12	9.7	14	9.3	11	11	<4.0	<9.6	<5.1	<9.2
Volatile Organic Compounds - SW8260B - (µg/L)																
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-2: Summary of Detected Constituents in Subsurface Soils

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	GW-AOC 1-1		GW-AOC 2-1		GW-AOC 3-1		GW-AOC 3-2		GW-AOC 8-1		GW-AOC 8-2	
				SO-AOC 1-1 29'-31' 10/31/2000	SO-AOC 1-1 38'-40' 10/31/2000	SO-AOC 2-1 18'-20' 10/17/2000	SO-AOC 2-1 38'-40' 10/17/2000	SO-AOC 3-1 29'-31' 11/1/2000	SO-AOC 3-1 38'-40' 11/1/2000	SO-AOC 3-2 8'-10' 10/30/2000	SO-AOC 3-2 38'-40' 10/30/2000	SO-AOC-8-1 14'-16' 10/11/2000	SO-AOC-8-1 38'-40' 10/11/2000	SO-AOC 8-2 18'-20' 10/12/2000	SO-AOC 8-2 38'-40' 10/12/2000
Volatile Organic Compounds - SW8260B - (µg/kg)															
1,1,1-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	170,000	86	85	<4.4	<5.5	<5.3	<5.2	<200	<5.2	5.4	<6.6	<4.4	<5.7
1,1,2-Trichloroethane			500	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2	<4.8	<6.6	<4.4	<5.7
1,1-Dichloroethene			6,800	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2	<4.8	<6.6	<4.4	<5.7
1,4-Dioxane			500	<360	<260	<220	<280	<260	<260	<10000	<260	<240	<330	<220	<280
Chloroform			10,000	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2	<4.8	<6.6	<4.4	<5.7
cis-1,2-Dichloroethene			7,000	<3.6	<2.6	<2.2	<2.8	<2.6	<2.6	190	<2.6	5.6	<3.3	4	<2.8
Ethylbenzene			70,000	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2	<4.8	<6.6	<4.4	<5.7
m+p-Xylene			1,000,000	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2	<4.8	<6.6	<4.4	<5.7
Naphthalene			100,000	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2	<4.8	<6.6	<4.4	<5.7
Tetrachloroethene			500	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2	<4.8	<6.6	<4.4	<5.7
Trichloroethene			1,800	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	980	<5.2	78	<6.6	31	<5.7
Volatile Organic Compounds - SW8260B - (µg/L)															
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-2: Summary of Detected Constituents in Subsurface Soils

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	GW-AOC 9-1		GW-AOC 9-2		GW-AOC 10-1		SB-101		SB-102		SB-103	
				SO-AOC 9-1 4'-6' 10/19/2000	SO-AOC 9-1 34'-36' 10/19/2000	SO-AOC 9-2 4'-6' 10/20/2000	SO-AOC 9-2 32'-34' 10/20/2000	SO-AOC 10-1 18'-20' 10/12/2000	SO-AOC 10-1 38'-40' 10/12/2000	SB-101 12'-14' 2/6/2003	SB-101 36'-38' 2/6/2003	SB-102 5'-6' 1/21/2003	SB-102 35'-36 1/21/2003	SB-103 26'-28' 2/6/2003	SB-103 46'-48' 2/6/2003
Volatile Organic Compounds - SW8260B - (µg/kg)															
1,1,1-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	170,000	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7
1,1,2-Trichloroethane			500	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7
1,1-Dichloroethene			6,800	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7
1,4-Dioxane			500	<330	<240	<240	<260	<220	<390	<240	<300	<240	<310	<250	<290
Chloroform			10,000	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7
cis-1,2-Dichloroethene			7,000	<3.3	<2.4	<3.4	<2.6	<2.2	<3.9	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7
Ethylbenzene			70,000	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7
m+p-Xylene			1,000,000	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8	NA	NA	NA	NA	NA	NA
Naphthalene			100,000	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7
Tetrachloroethene			500	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7
Trichloroethene			1,800	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7
Volatile Organic Compounds - SW8260B - (µg/L)															
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-2: Summary of Detected Constituents in Subsurface Soils

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	SB-104		SB-105		SB-106		SB-107		SB-108		SB-109	
				SB-104 21'-22' 1/21/2003	SB-104 40'-42' 1/21/2003	SB-105 11'-12' 1/22/2003	SB-105 37'-38' 1/22/2003	SB-106 29'-30' 1/23/2003	SB-106 42'-43' 1/23/2003	SB-107 14'-16' 2/7/2003	SB-107 38'-40' 2/10/2003	SB-108 29'-30' 1/24/2003	SB-108 45'-46' 1/24/2003	SB-109 11'-12' 1/23/2003	SB-109 27'-28' 1/23/2003
Volatile Organic Compounds - SW8260B - (µg/kg)															
1,1,1-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	170,000	<5.7	<5.4	43	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8	<4.5	<4.8
1,1,2-Trichloroethane			500	<5.7	<5.4	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8	<4.5	<4.8
1,1-Dichloroethene			6,800	<5.7	<5.4	31	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8	<4.5	<4.8
1,4-Dioxane			500	<290	<270	<250	<290	<230	<270	<240	<240	<240	<290	<220	<240
Chloroform			10,000	<5.7	<5.4	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8	<4.5	<4.8
cis-1,2-Dichloroethene			7,000	<5.7	<5.4	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8	<4.5	<4.8
Ethylbenzene			70,000	<5.7	<5.4	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8	<4.5	<4.8
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene			100,000	<5.7	<5.4	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8	<4.5	<4.8
Tetrachloroethene			500	<5.7	<5.4	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8	<4.5	<4.8
Trichloroethene			1,800	<5.7	<5.4	53	<5.8	<4.6	<5.4	<4.7	<4.7	9.0	7.0	19	<4.8
Volatile Organic Compounds - SW8260B - (µg/L)															
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-2: Summary of Detected Constituents in Subsurface Soils

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	SB-110		SB-111		SB-112		SB-113		SB-114		SB-115	
				SB-110 4'-6' 2/10/2003	SB-110 32'-34' 2/10/2003	SB-111 21'-22' 1/22/2003	SB-111 32'-33' 1/22/2003	SB-112 18'-19' 1/23/2003	SB-112 38'-39' 1/23/2003	SB-113 4'-6' 2/5/2003	SB-113 40'-42' 2/5/2003	SB-114 22'-24' 2/5/2003	SB-114 42'-44' 2/5/2003	SB-115 11'-13' 3/13/2003	SB-115 18'-20' 3/13/2003
Volatile Organic Compounds - SW8260B - (µg/kg)															
1,1,1-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	170,000	<4.8	<5.2	<5.0	<5.3	<260	<5.4	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
1,1,2-Trichloroethane			500	<4.8	<5.2	<5.0	<5.3	<260	<5.4	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
1,1-Dichloroethene			6,800	<4.8	<5.2	<5.0	<5.3	<260	<5.4	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
1,4-Dioxane			500	<240	<260	<500	<270	<26000	<270	<250	<280	<250	<260	<250	<270
Chloroform			10,000	<4.8	<5.2	<5.0	<5.3	<260	<5.4	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
cis-1,2-Dichloroethene			7,000	<4.8	<5.2	<5.0	<5.3	<260	<5.4	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
Ethylbenzene			70,000	<4.8	<5.2	<5.0	<5.3	<260	<5.4	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene			100,000	<4.8	<5.2	<5.0	<5.3	<260	<5.4	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
Tetrachloroethene			500	<4.8	<5.2	<5.0	<5.3	<260	<5.4	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
Trichloroethene			1,800	<4.8	<5.2	<5.0	<5.3	560	17	9.4	<5.7	<4.9	<5.2	<4.9	<5.5
Volatile Organic Compounds - SW8260B - (µg/L)															
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	3.4 B	NA	NA	NA

TABLE 2.3-2: Summary of Detected Constituents in Subsurface Soils

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	SB-117 SB-117 12'-14' 3/12/2003	SB-117 SB-117 44'-46' 3/12/2003	SB-118 SB-118 4'-5' 3/26/2003	Kd-1 Kd-1 4' 4/12/2005	Kd-2 Kd-2 8' 4/12/2005	Kd-3 Kd-3 3' 4/12/2005	Kd-3 Kd-3 4' 4/12/2005	Kd-4 Kd-4 11' 4/12/2005	Kd-5 Kd-5 3' 4/12/2005	Kd-7 Kd-7 3' 4/13/2005	Kd-8 Kd-8 9' 4/13/2005
Volatile Organic Compounds - SW8260B - (µg/kg)														
1,1,1-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	170,000	<4.7	<5.9	<5.1	<2600	2300	320	1100	410 E	250 E	<5.3	<260
1,1,2-Trichloroethane			500	<4.7	<5.9	<5.1	<2600	<250	<280	<260	15	6.4	<5.3	<260
1,1-Dichloroethene			6,800	<4.7	<5.9	<5.1	<2600	<250	<280	<260	50	51	<5.3	<260
1,4-Dioxane			500	<230	<290	<250	2,800,000	270,000	290,000	220,000	<240	8,600	<260	<13000
Chloroform			10,000	<4.7	<5.9	<5.1	<2600	<250	<280	<260	<4.8	<6.1	<5.3	<260
cis-1,2-Dichloroethene			7,000	<4.7	<5.9	<5.1	<2600	<250	<280	<260	8.1	<6.1	8.3	<260
Ethylbenzene			70,000	<4.7	<5.9	<5.1	NA	NA	NA	NA	NA	NA	NA	NA
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene			100,000	<4.7	<5.9	<5.1	<2600	310	<280	<260	<4.8	<6.1	<5.3	<260
Tetrachloroethene			500	<4.7	<5.9	<5.1	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene			1,800	<4.7	<5.9	<5.1	<2600	2600	280	890	240 E	200	56	460
Volatile Organic Compounds - SW8260B - (µg/L)														
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-2: Summary of Detected Constituents in Subsurface Soils

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	Kd-9 Kd-9 7' 4/13/2005	Kd-9 Kd-9 9' 4/13/2005	Kd-9 Kd-9 10' 4/13/2005	Kd-10 Kd-10 3' 4/13/2005	Kd-10 Kd-10 9' 4/13/2005	Kd-10 Kd-10 13' 4/13/2005	Kd-10 Kd-10 15' 4/13/2005	Kd-10 Kd-10 17' 4/13/2005	Kd-11 Kd-11 4' 4/13/2005	Kd-11 Kd-11 6' 4/13/2005	Kd-12 Kd-12 9' 4/13/2005	Kd-12 Kd-12 10' 4/13/2005
Volatile Organic Compounds - SW8260B - (µg/kg)															
1,1,1-Trichloroethane		Site Background for VOCs is defined as the non-detection of constituent concentrations above laboratory quantitation limits	170,000	<260	<260	<300	<290	<290	14	<260	13	<280	<360	6.1	<5.9
1,1,2-Trichloroethane			500	<260	<260	<300	<290	<290	<5.9	<260	<5.3	<280	<360	<5	<5.9
1,1-Dichloroethene			6,800	<260	<260	<300	<290	<290	11	<260	6.1	<280	<360	<5	<5.9
1,4-Dioxane			500	<13000	<13000	<15000	<14000	<15000	<300	<13000	<270	<14000	<18000	<250	<290
Chloroform			10,000	<260	<260	<300	<290	<290	11	<260	<5.3	<280	<360	<5	<5.9
cis-1,2-Dichloroethene			7,000	<260	<260	<300	380	300	150	<260	41	<280	<360	18	7.7
Ethylbenzene			70,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene			100,000	<260	<260	<300	<290	<290	<5.9	<260	<5.3	<280	<360	<5	<5.9
Tetrachloroethene			500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene			1,800	780	1000	650	1800	1800	810 E	830	340 E	1700	730	380 E	170
Volatile Organic Compounds - SW8260B - (µg/L)															
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

AOC	Area of Concern
B	Constituent was detected in QA/QC blank
E	Estimated concentration; result exceeds the calibration range
GW	Ground Water
NA	Not analyzed for this constituent
µg/kg	micrograms per kilogram
ft. bgs	feet below ground surface
SPLP	Synthetic Precipitation Leaching Procedure USEPA Method 1312
RRS	Risk Reduction Standard (2003 CSR values)
a)	Borings SO-E-1 to GW-AOC 10-1 (9/25/00 to 11/01/00) sampled by LAW and analyzed by STL North Canton using USEPA method 5035/8360B
b)	Borings SB-1 to SB-10 (02/03/00) sampled by ESC
c)	Boring SB-101 to SB-118 sampled by MACTEC (1/2/03 to 3/26/03) and analyzed by STL North Canton using USEPA method 5035/8260B
	Concentration exceeds Types 1-4 RRSs

DELINEATION CRITERIA

The delineation of regulated substances released at the site was provided in the Revised CSR. Volatile organic compounds in subsurface (Greater than 2 feet) have been delineated under HSRA Rules (391-3-19-.06(3)(b)2) on the basis of non-detection of these regulated substances above laboratory quantitation limits. Background for anthropogenic organic constituents is non-detect. This delineation is equivalent to VRP delineation criteria 12-8-108(1)(A), background concentrations.

PREPARED BY/DATE: NJM 3/2/16 updated
CHECKED BY/DATE: JAH 2/23/07

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**	Highest RRSs Value (µg/L)	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-2	MW-2	MW-2	MW-2A	MW-2	MW-2	MW-2	MW-2	MW-3	MW-3	MW-3
Sample Depth (well screen interval) (ft. bgs)			69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	55'-60'	55'-60'	55'-60'
Sample Depth (well screen interval) (ft. btoc)			69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	54.8-59.8	54.8-59.8	54.8-59.8
Passive Diffusion Bag Sample Depth (ft. btoc)	**Site Background Concentration**					72.2-73.7	72.2-73.7	72.2-73.7	72.2-73.7					55.4-56.9	55.4-56.9	55.4-56.9	55.4-56.9				
Date Sampled			2/25/2000	10/2/2000	2/19/2003	5/5/2004	10/13/2004	4/7/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	2/25/2000	10/3/2000	2/19/2003	5/5/2004	10/12/2004	4/7/2008	6/1/2010	June 2011 January & July 2012, January &July 2013, January & July 2014, January,July &December 2015	2/25/2000	10/3/2000	2/18/2003
Laboratory			STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton		STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton		STL Tampa	STL North Canton	STL North Canton
Purge Method/Sample Method			Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB		Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB		Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)										NOT SAMPLED per VIRP								NOT SAMPLED per VIRP			
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	<10
1,1,1-Trichloroethane		25,100	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	**57**
1,1-Dichloroethane		4000	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	<10
1,1-Dichloroethene		950	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	**13**
1,2,3-Trichlorobenzene		NR	<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<150	<5.0	NA
1,2,4-Trichlorobenzene		70	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	<10
1,2,4-Trimethylbenzene		NR	<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<150	<5.0	NA
1,3,5-Trimethylbenzene		NR	<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<150	<5.0	NA
1,4-Dioxane		29	<500	<250	<200	<250	<250	<250	<50		<500	<250	<200	<250	<250	<250	<50		<75000	<250	<400
Chloroform		80	**1.7**	<5.0	<5.0	<5.0	<5.0	<5.0	**4.9**		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	**2.1**		<150	<5.0	<10
cis-1,2-Dichloroethene		200	<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0		<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0		<150	<2.5	<5.0
Ethylbenzene		700	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	<10
Hexachlorobutadiene		1	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	<10
n-propylbenzene		NR	<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<150	<5.0	NA
p-Isopropyltoluene		NR	<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<1.0	<5.0	NA	NA	NA	<5.0	<1.0		<150	<5.0	NA
Methylene chloride		180	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<300	<5.0	<10
Naphthalene		20	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	<10
Tetrachloroethene		5	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	<10
trans-1,2-Dichloroethene		100	<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0		<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0		<150	<2.5	<10
Toluene		6,400	**1.3**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		**5.0**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<150	<5.0	<10
Trichloroethene		70	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		**240**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		**2900**	<5.0	**69**
Vinyl Chloride		4	<1.0	<2.0	<5.0	<2.0	<2.0	<2.0	<1.0		<1.0	<2.0	<5.0	<2.0	<2.0	<2.0	<1.0		<150	<2.0	<10
m&p-xylenes		10,000	<1.0	<5.0	NA	NA	NA	<5.0	<2.0		<1.0	<5.0	NA	NA	NA	<5.0	<2.0		<150	<5.0	NA
o-xylene		10,000	<1.0	<2.5	NA	NA	NA	<5.0	<1.0		<1.0	<2.5	NA	NA	NA	<5.0	<1.0		<150	<2.5	NA
Total Xylenes		10,000	NA	NA	<5.0	<5.0	<5.0	NA	NA		NA	NA	<5.0	<5.0	<5.0	NA	NA		NA	NA	<10
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver						<0.1	<0.1														
Dissolved Silver						NA	NA														
Total Cadmium						<0.005	<0.005														
Dissolved Cadmium						NA	NA														
Total Chromium						<0.1	<0.1														
Dissolved Chromium						NA	NA														
Total Lead						<0.015	<0.015														
Dissolved Lead						NA	NA														
Total Copper						<1.0	<1.0														
Dissolved Copper						NA	NA														
Total Nickel						<0.1	<0.1														
Dissolved Nickel						NA	NA														
Total Zinc						<2.0	<2.0														
Dissolved Zinc						NA	NA														

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A)	Highest RRSs Value (µg/L)	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-4	MW-4	MW-4	MW-4
Sample Depth (well screen interval) (ft. bgs)			55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	53'-58'	53'-58'	53'-58'	53'-58'
Sample Depth (well screen interval) (ft. btoc)			54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9
Passive Diffusion Bag Sample Depth (ft. btoc)	Site Background Concentration		57.5-59	57.5-59	57.5-59	57.5-59															'55.5-57
Date Sampled			5/6/2004	10/12-13/2004	4/8/2008	6/2/2010	6/3/2010	6/8/2011	1/19/2012	7/11/2012	1/10/2013	7/9/2013	1/9/2014	6/25/2014	1/13/2015	7/8/2015	12/15/2015	2/25/2000	10/3/2000	2/18/2003	5/6/2004
Laboratory			STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	STL Tampa	STL North Canton	STL North Canton	STL North Canton
Purge Method/Sample Method			PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer/ PDB
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)																					
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane		25,100	**6.7**	**13**	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
1,1-Dichloroethane		4000	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	**5.1**	**12**	<5.0	<1.0	**1.7**	<1.0	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
1,2,3-Trichlorobenzene		NR	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA
1,2,4-Trichlorobenzene		70	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene		NR	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA
1,3,5-Trimethylbenzene		NR	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA
1,4-Dioxane		29	<250	<250	<250	<50	<50	NA	<100	<100	<100	<50	<150	<150	<150	<150	<150	<500	<250	<200	<250
Chloroform		80	**7.3**	**7.7**	<5.0	**2.3**	**2.3**	**2.7**	**2.8**	**3.0**	**3.0**	**3.2**	**2.5**	**3.5**	**3.7**	**4.0**	**3.9**	<1.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		200	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	<5.0
Ethylbenzene		700	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
Hexachlorobutadiene		1	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
n-propylbenzene		NR	NA	NA	<5.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA
p-Isopropyltoluene		NR	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA
Methylene chloride		180	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0
Naphthalene		20	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
Tetrachloroethene		5	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene		100	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	<5.0
Toluene		6,400	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0
Trichloroethene		70	**8.1**	**15**	<5.0	**1.6**	**2.4**	**1.8**	**1.3**	**3.1**	**3.1**	**2.2**	**3.7**	<1.0	<1.0	<1.0	<1.0	**16**	<5.0	<5.0	<5.0
Vinyl Chloride		4	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<5.0	<2.0
m&p-xylenes		10,000	NA	NA	<5.0	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<5.0	NA	NA
o-xylene		10,000	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	NA	NA
Total Xylenes		10,000	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA	NA	<2.0	<2.0	<2.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver			<0.1	<0.1																	<0.1
Dissolved Silver			<0.1	NA																	<0.1
Total Cadmium			<0.005	<0.005																	<0.005
Dissolved Cadmium			<0.005	NA																	<0.005
Total Chromium			<0.1	<0.1																	<0.1
Dissolved Chromium			<0.1	NA																	<0.1
Total Lead			<0.015	<0.015																	<0.015
Dissolved Lead			<0.015	NA																	<0.015
Total Copper			<1.0	<1.0																	<1.0
Dissolved Copper			<1.0	NA																	<1.0
Total Nickel			<0.1	<0.1																	<0.1
Dissolved Nickel			<0.1	NA																	<0.1
Total Zinc			<2.0	<2.0																	<2.0
Dissolved Zinc			<2.0	NA																	<2.0

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**	Highest RRSs Value (µg/L)	MW-4	MW-4	MW-4	MW-4	MW-5	MW-5	MW-5		MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
Sample Depth (well screen interval) (ft. bgs)			53'-58'	53'-58'	53'-58'	53'-58'	49'-54'	49'-54'	49'-54'		49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'
Sample Depth (well screen interval) (ft. btoc)			52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9	48.8-53.8	48.8-53.8	48.8-53.8		48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8
Passive Diffusion Bag Sample Depth (ft. btoc)	**Site Background Concentration**		'55.5-57	'55.5-57	'55.5-57							51.4-52.9	51.4-52.9	51.4-52.9	51.4-52.9	51.4-52.9					
Date Sampled			10/12-13/2004	4/8/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	2/25/2000	10/3/2000	2/18/2003		6/12/2003	5/7/2004	10/12-13/2004	4/7/2008	6/1/2010	6/2/2010	6/7/2011	1/18/2012	7/11/2012	1/10/2013	7/9/2013
Laboratory			STL North Canton	Test America - North Canton	Test America - North Canton		STL Tampa	STL North Canton	STL North Canton		STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton
Purge Method/Sample Method			PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB		Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer		PumpLFLS/ Bailer	PumpLFLS/ Bailer/PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)										DL x25											
1,1,1,2-Tetrachloroethane		70	<5.0	<5.0	<1.0		<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<1.0		<400	<500	**45**	<120	**53**	<45	<42	<12	<8.0	<8.0	**4**	**1.8**	<1.0	<8.0	**1.4**
1,1-Dichloroethane		4000	<5.0	<5.0	<1.0		<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
1,1-Dichloroethene		950	<5.0	<5.0	<1.0		<400	<500	**44**	<120	**65**	<45	<42	<12	**8.9**	**22**	**15**	**12**	<1.0	<8.0	**9.8**
1,2,3-Trichlorobenzene		NR	NA	<5.0	<1.0		<400	<500	NA		NA	NA	NA	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	**1.5**
1,2,4-Trichlorobenzene		70	<5.0	<5.0	<1.0		<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	**1.5**
1,2,4-Trimethylbenzene		NR	NA	<5.0	<1.0		<400	<500	NA	NA	NA	NA	NA	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
1,3,5-Trimethylbenzene		NR	NA	<5.0	<1.0		<400	<500	NA	NA	NA	NA	NA	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
1,4-Dioxane		29	<250	<5.0	<1.0		<200000	<25000	<1200		<1300	<2300	<2100	<620	<400	<400	NA	<100	<100	<400	<50
Chloroform		80	<5.0	<5.0	<1.0		<400	<500	<25	<120	<33	<45	<42	<12	<8.0	<8.0	**1.8**	**1.8**	**2.1**	<8.0	**3.0**
cis-1,2-Dichloroethene		200	<5.0	<5.0	<1.0		<400	<250	**15**	<62	**19**	<45	<42	<6.2	<8.0	<8.0	**4.5**	**3.6**	<1.0	<8.0	**3.7**
Ethylbenzene		700	<5.0	<5.0	<1.0		<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
Hexachlorobutadiene		1	<5.0	<5.0	<1.0		<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	**1.4**
n-propylbenzene		NR	NA	<5.0	<1.0		<400	<500	NA		NA	NA	NA	<12	<8.0	<8.0	NA	<1.0	<1.0	<8.0	<1.0
p-Isopropyltoluene		NR	NA	<5.0	<1.0		<400	<500	NA		NA	NA	NA	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
Methylene chloride		180	<5.0	<5.0	<1.0		<800	<500	<25	<120	<33	<45	<42	<12	<8.0	<8.0	<5.0	<1.0	<1.0	<8.0	<1.0
Naphthalene		20	<5.0	<5.0	<1.0		<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0	<5.0	<5.0	<5.0	<8.0	**1.1**
Tetrachloroethene		5	<5.0	<5.0	<1.0		<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
trans-1,2-Dichloroethene		100	<5.0	<5.0	<1.0		<400	<250	<12		<17	<45	<42	<6.2	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
Toluene		6,400	<5.0	<5.0	<1.0		<400	<500	<25	<120	<33	<45	<42	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
Trichloroethene		70	<5.0	<5.0	<1.0		**7400**	**15000**	**730**	**730**	**1200**	**310**	**320**	**180**	**210**	**210**	**160**	**230**	**220**	**240**	**370**
Vinyl Chloride		4	<2.0	<5.0	<1.0		<400	<200	<25		<33	<18	<17	<5.0	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
m&p-xylenes		10,000	NA	<5.0	<2.0		<400	<500	NA		NA	NA	NA	<12	<16.0	<16.0	<2.0	<1.0	<1.0	<16.0	<2.0
o-xylene		10,000	NA	<5.0	<1.0		<400	<250	NA		NA	NA	NA	<12	<8.0	<8.0	<1.0	<1.0	<1.0	<8.0	<1.0
Total Xylenes		10,000	<5.0	NA	NA		NA	NA	<25		<33	<5.0	<42	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA	NA		NA	NA	NA		NA	NA	NA	<2.0	<2.0	<2.0	<2.0	<5.0	<5.0	<40	<2.0
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver			<0.1									<0.1	<0.1								
Dissolved Silver			NA									<0.1	NA								
Total Cadmium			<0.005									<0.005	<0.005								
Dissolved Cadmium			NA									<0.005	NA								
Total Chromium			<0.1									<0.1	<0.1								
Dissolved Chromium			NA									<0.1	NA								
Total Lead			<0.015									<0.015	<0.015								
Dissolved Lead			NA									<0.015	NA								
Total Copper			<1.0									<1.0	<1.0								
Dissolved Copper			NA									<1.0	NA								
Total Nickel			<0.1									<0.1	<0.1								
Dissolved Nickel			NA									<0.1	NA								
Total Zinc			<2.0									<2.0	<2.0								
Dissolved Zinc			NA									<2.0	NA								

Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits

NOT SAMPLED per VIRP

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A)	Highest RRSs Value (µg/L)	MW-5	MW-5	MW-5	MW-5	MW-5	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-7	MW-7	MW-7	MW-7	MW-8	MW-8A	MW-8B	MW-8
Sample Depth (well screen interval) (ft. bgs)			49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	43'-48'	43'-48'	43'-48'	43'-48'	43'-48'	43'-48'	46'-56'	46'-56'	45.6'-55.6'	45.6'-55.6'	60'-70'	60'-70'	60'-70'	60'-70'
Sample Depth (well screen interval) (ft. btoc)			48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	45.6'-55.6'	53.7'-55.2'	53.7'-55.2'	53.7'-55.2'		59.6-69.6	59.6-69.6	59.6-69.6
Passive Diffusion Bag Sample Depth (ft. btoc)	Site Background Concentration										45.9'-47.4'	45.9'-47.4'			53.7'-55.2'				'60.6-62.1	65.6-67.1	'60.6-62.1
Date Sampled			1/8/2014	6/25/2014	1/13/2015	7/8/2015	12/16/2015	2/25/2000	10/3/2000	2/18/2003	4/8/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July &December 2015	2/25/2003	4/8/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July &December 2015	2/24/2003	5/7/2004	5/7/2004	10/12/2004
Laboratory			Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	STL Tampa	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge Method/Sample Method			Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)																					
1,1,1,2-Tetrachloroethane		70	<2.0	**2.5**	<4.0	<4.0	<2.0	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane		25,100	**2.3**	**3**	<4.0	<4.0	<2.0	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane		4000	<2.0	<2.0	<4.0	<4.0	<2.0	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	**19.1**	**24**	**7.4**	<4.0	<2.0	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
1,2,3-Trichlorobenzene		NR	<2.0	<2.0	<4.0	<4.0	<2.0	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA
1,2,4-Trichlorobenzene		70	<2.0	<2.0	<4.0	<4.0	<2.0	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene		NR	<2.0	<1.0	<4.0	<4.0	<2.0	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA
1,3,5-Trimethylbenzene		NR	<2.0	<1.0	<4.0	<4.0	<2.0	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA
1,4-Dioxane		29	<300	NA	NA	NA	<2.0	<500	<250	<200	<250	<50		<200	<250	<50		<200	<250	<250	<250
Chloroform		80	**2.3**	**3.5**	<4.0	<4.0	**2.6**	<1.0	<5.0	<5.0	<5.0	**1.2**		<5.0	**6.0**	**4.1**		<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		200	**8.1**	**9.6**	**5.1**	<4.0	**1.9J**	<1.0	<2.5	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<5.0	<5.0	<5.0
Ethylbenzene		700	<2.0	<2.0	<4.0	<4.0	<2.0	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
Hexachlorobutadiene		1	<2.0	**2.9**	**6.0**	**5.3**	**4.8**	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
n-propylbenzene		NR	<2.0	<1.0	<4.0	<4.0	<2.0	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA
p-Isopropyltoluene		NR	<2.0	<1.0	<4.0	<4.0	<2.0	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA
Methylene chloride		180	<4.0	<4.0	<8.0	**10.4 B**	<4.0	<2.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
Naphthalene		20	<2.0	<2.0	<4.0	<4.0	<2.0	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
Tetrachloroethene		5	<2.0	**2.2**	<4.0	<4.0	<2.0	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene		100	<2.0	<2.0	<4.0	<4.0	<2.0	<1.0	<2.5	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<5.0	<5.0	<5.0
Toluene		6,400	<2.0	<2.0	<4.0	<4.0	<2.0	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
Trichloroethene		70	**397**	**482**	**654**	**354**	**237**	**9.6**	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0
Vinyl Chloride		4	<2.0	<2.0	<4.0	<4.0	<2.0	<1.0	<2.0	<5.0	<2.0	<1.0		<5.0	<2.0	<1.0		<5.0	<2.0	<2.0	<2.0
m&p-xylenes		10,000	<4.0	<2.0	<8.0	<8.0	<4.0	<1.0	<5.0	NA	<5.0	<2.0		NA	<5.0	<2.0		NA	NA	NA	NA
o-xylene		10,000	<1.0	<1.0	<4.0	<4.0	<2.0	<1.0	<2.5	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA
Total Xylenes		10,000	NA	NA	NA	NA	NA	NA	NA	<5.0	NA	NA		<5.0	NA	NA		<5.0	<5.0	<5.0	<5.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver																					
Dissolved Silver																					
Total Cadmium																					
Dissolved Cadmium																					
Total Chromium																					
Dissolved Chromium																					
Total Lead																					
Dissolved Lead																					
Total Copper																					
Dissolved Copper																					
Total Nickel																					
Dissolved Nickel																					
Total Zinc																					
Dissolved Zinc																					

Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits

NOT SAMPLED per VIRP

NOT SAMPLED per VIRP

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**	Highest RRSs Value (µg/L)	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9	MW-9	MW-10	MW-10A	MW-10B	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10
Sample Depth (well screen interval) (ft. bgs)			60'-70'	60'-70'	60'-70'	55'-65'	55'-65'	55'-65'	55'-65'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'
Sample Depth (well screen interval) (ft. btoc)			59.6-69.6	59.6-69.6	59.6-69.6	54.6'-64.6'	54.6'-64.6'	54.6'-64.6'	54.6'-64.6'	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4
Passive Diffusion Bag Sample Depth (ft. btoc)	**Site Background Concentration**		'60.6-62.1	'60.6-62.1			62.7'-64.2'	62.7'-64.2'			38.6-40.1	43.6-45.1								
Date Sampled			4/7/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	2/24/2003	4/7/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	2/25/2003	5/6/2004	5/6/2004	10/12-13/2004	4/8/2008	6/2/2010	6/3/2010	6/9/2011	1/17/2012	7/10/2012	1/10/2013	7/10/2013
Laboratory			Test America - North Canton	Test America - North Canton		STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton
Purge Method/Sample Method			no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)																					
1,1,1,2-Tetrachloroethane		70	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane		25,100	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane		4000	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene		950	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene		NR	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene		70	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene		NR	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene		NR	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane		29	<250	<50		<200	<250	<50		<200	<250	<250	<250	<250	<50	<50	NA	<100	<100	<50	<50
Chloroform	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	80	<5.0	**1.0**		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	**6.4**	**1.8**	**1.9**	**2.5**	**1.8**	**1.5**	**1.1**	**1.5**
cis-1,2-Dichloroethene		200	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene		700	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene		1	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene		NR	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA	<5.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene		NR	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride		180	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0
Naphthalene		20	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<1.0	<1.0
Tetrachloroethene		5	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene		100	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene		6,400	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene		70	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	**8.5**	**5.8**	**6.1**	<5.0	**3.4**	**2.8**	**2.6**	**2.9**	**2.6**	**2.5**	**1.4**
Vinyl Chloride		4	<2.0	<1.0		<5.0	<2.0	<1.0		<5.0	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m&p-xylenes		10,000	<5.0	<2.0		NA	<5.0	<2.0		NA	NA	NA	NA	<5.0	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0
o-xylene		10,000	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes		10,000	NA	NA		<5.0	NA	NA		<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	<2.0	<2.0	<2.0	NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver											<0.1	<0.1									
Dissolved Silver											<0.1	NA									
Total Cadmium											<0.005	<0.005									
Dissolved Cadmium											<0.005	NA									
Total Chromium											<0.1	<0.1									
Dissolved Chromium											<0.1	NA									
Total Lead											<0.015	<0.015									
Dissolved Lead											<0.015	NA									
Total Copper											<1.0	<1.0									
Dissolved Copper											<1.0	NA									
Total Nickel											<0.1	<0.1									
Dissolved Nickel											<0.1	NA									
Total Zinc											<2.0	<2.0									
Dissolved Zinc											<2.0	NA									

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A)	Highest RRSs Value (µg/L)	MW-10	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-14	MW-14PRE
Sample Depth (well screen interval) (ft. bgs)			35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	66'-76'	66'-76'	66'-76'	66'-76'	60.5'-70.5'	60.5'-70.5'	60.5'-70.5'	60.5'-70.5'	12'-22'	12'-22'	12'-22'	12'-22'	71.2'-86.2'	71.2'-86.2'
Sample Depth (well screen interval) (ft. btoc)			37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	68.5'-78.5'	68.5'-78.5' 76.6'-78.1'	68.5'-78.5' 76.6'-78.1'	68.5'-78.5'	62.9'-72.9'	62.9'-72.9' 71.0'-72.5'	62.9'-72.9' 71.0'-72.5'	62.9'-72.9'	14.5'-24.5'	14.5'-24.5' 22.6'-24.1'	14.5'-24.5' 22.6'-24.1'	14.5'-24.5'	73.4-88.4	73.4-88.4
Passive Diffusion Bag Sample Depth (ft. btoc)	Site Background Concentration																				
Date Sampled			1/7/2014	6/26/2014	1/13/2015	7/9/2015	12/15/2015	2/25/2003	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	2/25/2003	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	2/26/2003	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	4/3/2003	4/21/2003
Laboratory			Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	STL North Canton
Purge Method/Sample Method			Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	PumpLFLS/ Bailer
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)																					
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP	<100	<6.2
1,1,1-Trichloroethane		25,100	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
1,1-Dichloroethane		4000	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
1,1-Dichloroethene		950	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
1,2,3-Trichlorobenzene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA
1,2,4-Trichlorobenzene		70	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
1,2,4-Trimethylbenzene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA
1,3,5-Trimethylbenzene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA
1,4-Dioxane		29	<150	<150	<150	<150	<150	<200	<250	<50		<200	<250	<50		<200	<250	<50		<5000	<250
Chloroform		80	**1.2**	**1.5**	**1.5**	**1.4**	**1.3**	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
cis-1,2-Dichloroethene		200	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		**230**	**180**
Ethylbenzene		700	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
Hexachlorobutadiene		1	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
n-propylbenzene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA
p-Isopropyltoluene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA
Methylene chloride		180	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
Naphthalene		20	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
Tetrachloroethene		5	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
trans-1,2-Dichloroethene		100	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		<50	<3.1
Toluene		6,400	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<100	<6.2
Trichloroethene		70	**1.2**	<1.0	**1.9**	**1.6**	**1.7**	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		**3000**	**2200**
Vinyl Chloride		4	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<2.0	<1.0		<5.0	<2.0	<1.0		<5.0	<2.0	<1.0		<40	<6.2
m&p-xylenes		10,000	<2.0	<2.0	<2.0	<2.0	<2.0	NA	<5.0	<2.0		NA	<5.0	<2.0		NA	<5.0	<2.0		NA	NA
o-xylene		10,000	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA
Total Xylenes		10,000	NA	NA	NA	NA	NA	<5.0	NA	NA		<5.0	NA	NA		<5.0	NA	NA		<100	<6.2
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA		NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver																					
Dissolved Silver																					
Total Cadmium																					
Dissolved Cadmium																					
Total Chromium																					
Dissolved Chromium																					
Total Lead																					
Dissolved Lead																					
Total Copper																					
Dissolved Copper																					
Total Nickel																					
Dissolved Nickel																					
Total Zinc																					
Dissolved Zinc																					

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A) Site Background Concentration	Highest RRSs Value (µg/L)	MW-14POST	MW-14LONG	MW-14PRE	MW-14POST	MW-14LONG	MW-14(7:10)	MW-14(9:30)	MW-14(12:15)	MW-14A	MW-14B	MW-14C	MW-14	MW-14	MW-14	Re-analysis MW-14	MW-14	Re-analysis MW-14	MW-14	MW-14
Sample Depth (well screen interval) (ft. bgs)			71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'
Sample Depth (well screen interval) (ft. btoc)			73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4
Passive Diffusion Bag Sample Depth (ft. btoc)											74.5-76	79.5-81	84.5-86	74.5-76	74.5-76	74.5-76	74.5-76				
Date Sampled			4/21/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	6/13/2003	6/13/2003	6/13/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004	4/7/2008	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/8/2011	1/19/2012
Laboratory			STL North Canton	STL North Canton	ASI	ASI	ASI	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	AES-Atlanta
Purge Method/Sample Method			PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)																					
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<10	<1.0
1,1,1-Trichloroethane		25,100	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<10	<1.0
1,1-Dichloroethane		4000	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<10	**4.5**
1,1-Dichloroethene		950	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	**57**	<140	**58**	**56**	**110**
1,2,3-Trichlorobenzene		NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<330	<120	<25	<140	<29	<10	<1.0
1,2,4-Trichlorobenzene		70	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<10	<1.0
1,2,4-Trimethylbenzene		NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<330	<120	<25	<140	<29	<10	<1.0
1,3,5-Trimethylbenzene		NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<330	<120	<25	<140	<29	<10	<1.0
1,4-Dioxane		29	<1000	<1000	<1300	<5000	<5000	<10000	<10000	<10000	<10000	<12000	<10000	<16000	<17000	<6200	<1200	<7100	<1400	NA	<100
Chloroform		80	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<10	<1.0
cis-1,2-Dichloroethene		200	**350**	**440**	**190**	**410**	**510**	**470**	**530**	**520**	**500**	**450**	**450**	<310	**410**	**370**	**320**	**380**	**330**	**280**	**390**
Ethylbenzene		700	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<10	<1.0
Hexachlorobutadiene		1	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<10	<1.0
n-propylbenzene		NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<330	<120	<25	<140	<29	<10	<1.0
p-Isopropyltoluene		NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<330	<120	<25	<140	<29	<10	<1.0
Methylene chloride		180	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<50	<1.0
Naphthalene		20	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<50	<5.0
Tetrachloroethene		5	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<10	**2.8**
trans-1,2-Dichloroethene		100	<12	<12	<12	<100	<100	<120	<120	<120	<200	<250	<200	<310	<170	<120	<25	<140	<29	<10	**1.1**
Toluene		6,400	<25	<25	**29**	<100	<100	<250	<250	<250	<200	<250	<200	<310	<330	<120	<25	<140	<29	<10	<1.0
Trichloroethene		70	**6300**	**8200**	**2400**	**8200**	**8800**	**7000**	**7700**	**7300**	**6800**	**6600**	**6100**	**1900**	**4800**	**3500**	**3000 E**	**3600**	**3200 E**	**3200**	**4000**
Vinyl Chloride		4	<25	<25	<10	<40	<40	<250	<250	<250	<200	<250	<200	<120	<130	<120	<25	<140	<29	<10	**1.9**
m&p-xylenes		10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<330	<250	<50	<290	<57	<20	<1.0
o-xylene		10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<330	<120	<25	<140	<29	<10	<1.0
Total Xylenes		10,000	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200	<310	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<25	NA	NA	<29	<20	<5.0
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver																					
Dissolved Silver																					
Total Cadmium																					
Dissolved Cadmium																					
Total Chromium																					
Dissolved Chromium																					
Total Lead																					
Dissolved Lead																					
Total Copper																					
Dissolved Copper																					
Total Nickel																					
Dissolved Nickel																					
Total Zinc																					
Dissolved Zinc																					

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A) Site Background Concentration	Highest RRSs Value (µg/L)	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-15	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-16	MW-17	MW-17A	MW-17B
Sample Depth (well screen interval) (ft. bgs)			71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	33'-47.5'	33'-47.5'	33'-47.5'
Sample Depth (well screen interval) (ft. btoc)			73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	9.3'-14.3'	9.3'-14.3' 12.3'-13.8'	9.3'-14.3' 12.3'-13.8'	9.3'-14.3'	9.2'-14.2'	9.2'-14.2' 12.2'-13.7'	9.2'-14.2' 12.2'-13.7'	9.2'-14.2'	35.5-50	35.5-50 36.4-37.9	35.5-50 41.4-42.9
Passive Diffusion Bag Sample Depth (ft. btoc)																					
Date Sampled			7/11/2012	1/9/2013	7/10/2013	1/8/2014	6/26/2014	1/14/2015	7/8/2015	12/16/2015	4/3/2003	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	4/4/2003	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	5/14/2003	5/4/2004	5/4/2004
Laboratory			AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	STL North Canton	STL North Canton
Purge Method/Sample Method			Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)														NOT SAMPLED per VIRP				NOT SAMPLED per VIRP			
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
1,1,1-Trichloroethane		25,100	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
1,1-Dichloroethane		4000	**3.3**	<100	<10	**2.3**	**2.6**	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
1,1-Dichloroethene		950	**90**	<100	**57**	**52.4**	**64.6**	**46.8**	**44.4**	**45.4**	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
1,2,3-Trichlorobenzene		NR	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA
1,2,4-Trichlorobenzene		70	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene		NR	<1.0	<100	<10	<1.0	**2.7**	<20	<20	<20	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA
1,3,5-Trimethylbenzene		NR	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA
1,4-Dioxane		29	<100	<5000	<500	<150	NA	NA	NA	<20	<250	<250	<50		<250	<250	<50		<200	<250	<250
Chloroform		80	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		200	**340**	**310**	**350**	**254**	**258**	**189**	**222**	**249**	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<5.0	<5.0
Ethylbenzene		700	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
Hexachlorobutadiene		1	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
n-propylbenzene		NR	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA
p-Isopropyltoluene		NR	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA
Methylene chloride		180	<1.0	<100	<10	<2.0	<2.0	<40	**44.6 B**	<40	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
Naphthalene		20	<5.0	<100	<10	<1.0	**5.6**	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
Tetrachloroethene		5	**2.4**	<100	<10	**1.6**	**1.8**	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
trans-1,2-Dichloroethene		100	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<5.0	<5.0
Toluene		6,400	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
Trichloroethene		70	**3700**	**3400**	**2900**	**1990**	**1450**	**2060**	**1730**	**1940**	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<5.0
Vinyl Chloride		4	**2.3**	<100	<10	**1.1**	**1.6**	<20	<20	<20	<2.0	<2.0	<1.0		<2.0	<2.0	<1.0		<5.0	<2.0	<2.0
m&p-xylenes		10,000	<1.0	<200	<20	<2.0	<2.0	<40	<40	<40	NA	<5.0	<2.0		NA	<5.0	<2.0		NA	NA	NA
o-xylene		10,000	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	NA	NA
Total Xylenes		10,000	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	NA	NA		<5.0	NA	NA		<5.0	<5.0	<5.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	<5.0	<20	<2.0	<2.0	<2.0	<2.0	<8.0	<2.0	NA	NA	NA		NA	NA	NA		NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver																					
Dissolved Silver																					
Total Cadmium																					
Dissolved Cadmium																					
Total Chromium																					
Dissolved Chromium																					
Total Lead																					
Dissolved Lead																					
Total Copper																					
Dissolved Copper																					
Total Nickel																					
Dissolved Nickel																					
Total Zinc																					
Dissolved Zinc																					

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A) Site Background Concentration	Highest RRSs Value (µg/L)	MW-17C	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18A	MW-18B	MW-18C	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19A	MW-19B	MW-19	MW-19
Sample Depth (well screen interval) (ft. bgs)			33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'
Sample Depth (well screen interval) (ft. btoc)			35.5-50	35.5-50	35.5-50	35.5-50	35.5-50	29.7'-44.7'	29.7'-44.7'	29.7'-44.7'	29.7'-44.7'	29.6-44.6	29.6-44.6	29.7'-44.7'	29.7'-44.7'	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7
Passive Diffusion Bag Sample Depth (ft. btoc)			46.4-47.9	36.4-37.9	36.4-37.9	36.4-37.9			31.1-32.6	36.1-37.6	41.1-42.6	31.1-32.6	31.1-32.6	31.1-32.6				39.9-41.4	44.9-46.4	39.9-41.4	39.9-41.4
Date Sampled			5/4/2004	10/12/2004	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	5/14/2003	5/4/2004	5/4/2004	5/4/2004	10/12/2004	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	5/28/2003	6/13/2003	5/5/2004	5/5/2004	10/12/2004	4/7/2008
Laboratory			STL North Canton	STL North Canton	STL North Canton	STL North Canton		STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton
Purge Method/Sample Method			no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)							NOT SAMPLED per VIRP								NOT SAMPLED per VIRP						
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
1,1-Dichloroethane		4000	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
1,2,3-Trichlorobenzene		NR	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<100
1,2,4-Trichlorobenzene		70	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
1,2,4-Trimethylbenzene		NR	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<100
1,3,5-Trimethylbenzene		NR	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<100
1,4-Dioxane		29	<250	<250	<5.0	<50		<200	<250	<250	<250	<250	<250	<50		<10000	<20000	<62000	<62000	<83000	<5000
Chloroform		80	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
cis-1,2-Dichloroethene		200	<5.0	<5.0	<5.0	<1.0		<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0		<120	<250	<1200	<1200	<1700	<50
Ethylbenzene		700	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
Hexachlorobutadiene		1	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
n-propylbenzene		NR	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<100
p-Isopropyltoluene		NR	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<100
Methylene chloride		180	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		380 B	<500	<1200	<1200	<1700	<100
Naphthalene		20	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
Tetrachloroethene		5	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
trans-1,2-Dichloroethene		100	<5.0	<5.0	<5.0	<1.0		<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0		<120	<250	<1200	<1200	<1700	<50
Toluene		6,400	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<250	<500	<1200	<1200	<1700	<100
Trichloroethene		70	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		**8000**	**12000**	**20000**	**19000**	**14000**	**1500**
Vinyl Chloride		4	<2.0	<2.0	<5.0	<1.0		<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0		<250	<500	<1200	<1200	<670	<40
m&p-xylenes		10,000	NA	NA	<5.0	<2.0		NA	NA	NA	NA	NA	<5.0	<2.0		NA	NA	NA	NA	NA	<100
o-xylene		10,000	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<100
Total Xylenes		10,000	<5.0	<5.0	<5.0	NA		<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA		<250	<500	<1200	<1200	<1700	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver																		<0.1		<0.1	
Dissolved Silver																		NA		NA	
Total Cadmium																		<0.005		<0.005	
Dissolved Cadmium																		NA		NA	
Total Chromium																		<0.1		<0.1	
Dissolved Chromium																		NA		NA	
Total Lead																		<0.015		<0.015	
Dissolved Lead																		NA		NA	
Total Copper																		<1.0		<1.0	
Dissolved Copper																		NA		NA	
Total Nickel																		<0.1		<0.1	
Dissolved Nickel																		NA		NA	
Total Zinc																		<2.0		<2.0	
Dissolved Zinc																		NA		NA	

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A)	Highest RRSs Value (µg/L)	MW-19	Re-analyzed MW-19	MW-19	Re-analyzed MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-20	MW-20(12:10)	MW-20(15:00)	MW-20(17:30)	MW-20A
Sample Depth (well screen interval) (ft. bgs)			36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'
Sample Depth (well screen interval) (ft. btoc)			38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5
Passive Diffusion Bag Sample Depth (ft. btoc)			39.9-41.4	39.9-41.4																	92.6-94.1
Date Sampled	Site Background Concentration		6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/8/2011	1/18/2012	7/11/2012	1/9/2013	7/10/2013	1/8/2014	6/26/2014	1/14/2015	7/8/2015	12/16/2015	5/28/2003	6/12/2003	6/12/2003	6/12/2003	5/6/2004
Laboratory			Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge Method/Sample Method			no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	no purge/ PDB
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)																					
1,1,1,2-Tetrachloroethane		70	<56	<56	<200	<40	<10	**10**	**12**	<200	<14	**9.2**	**7.1**	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<7.2
1,1,1-Trichloroethane		25,100	<56	<56	<200	<40	<10	**7.4**	**6.4**	<200	<14	**7**	**7.3**	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<7.2
1,1-Dichloroethane		4000	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<7.2
1,1-Dichloroethene		950	**82**	**100**	<200	**72**	**18**	**45**	**37**	<200	**33**	**48.2**	**52.7**	**43.6**	**32.3**	<20	<5.0	<5.0	<5.0	<5.0	<7.2
1,2,3-Trichlorobenzene		NR	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene		70	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<7.2
1,2,4-Trimethylbenzene		NR	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	**2.7**	<40	<25	<20	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene		NR	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	**2**	<40	<25	<20	NA	NA	NA	NA	NA
1,4-Dioxane		29	<2800	<2800	<10000	<2000	NA	<100	<100	<10000	<710	<150	NA	NA	NA	<20	<200	<200	<200	<200	<360
Chloroform	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	80	<56	<56	<200	<40	<10	**1.9**	**2.2**	<200	<14	**2.7**	**4.1**	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<7.2
cis-1,2-Dichloroethene		200	<56	<56	<200	<40	<10	**12**	**13**	<200	**18**	**23.2**	**29**	<40	<25	<20	**14**	**12**	**15**	**20**	**40**
Ethylbenzene		700	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<7.2
Hexachlorobutadiene		1	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	**2.1**	**1.8**	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<7.2
n-propylbenzene		NR	<56	<56	<200	<40	NA	<1.0	<1.0	<200	<14	<1.0	**2.2**	<40	<25	<20	NA	NA	NA	NA	NA
p-Isopropyltoluene		NR	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	**2.3**	<40	<25	<20	NA	NA	NA	NA	NA
Methylene chloride		180	<56	<56	<200	<40	<50	<5.0	<5.0	<200	<14	<2.0	<2.0	<80	**53.3 B**	<40	<5.0	<5.0	<5.0	<5.0	<7.2
Naphthalene		20	<56	<56	<200	<40	<50	<5.0	<5.0	<200	<14	<1.0	<1.0	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<7.2
Tetrachloroethene		5	<56	<56	<200	<40	<10	**2.3**	**2.3**	<200	<14	**2.1**	**1.7**	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<7.2
trans-1,2-Dichloroethene		100	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20	<2.5	<2.5	<2.5	<2.5	<7.2
Toluene		6,400	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20	<5.0	**5.7**	<5.0	<5.0	<7.2
Trichloroethene		70	**1700**	**1700**	**5800**	**5800 E**	**4000**	**5900**	**5100**	**6400**	**5000**	**3360**	**2340**	**3280**	**1760**	**1720**	<5.0	<5.0	<5.0	<5.0	<7.2
Vinyl Chloride		4	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20	<5.0	<5.0	<5.0	<5.0	<2.9
m&p-xylenes		10,000	<110	<110	<400	<180	<20	<1.0	<1.0	<400	<29	<2.0	**3.5**	<80	<50	<40	NA	NA	NA	NA	NA
o-xylene		10,000	<56	<56	<200	<40	<10	<1.0	<1.0	<200	<14	<1.0	**2.7**	<40	<25	<20	NA	NA	NA	NA	NA
Total Xylenes		10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<7.2
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	<11	NA	NA	<40	<20	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	NA	NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver																					
Dissolved Silver																					
Total Cadmium																					
Dissolved Cadmium																					
Total Chromium																					
Dissolved Chromium																					
Total Lead																					
Dissolved Lead																					
Total Copper																					
Dissolved Copper																					
Total Nickel																					
Dissolved Nickel																					
Total Zinc																					
Dissolved Zinc																					

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A)	Highest RRSs Value (µg/L)	MW-20B	MW-20C	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20
Sample Depth (well screen interval) (ft. bgs)			91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'
Sample Depth (well screen interval) (ft. btoc)			91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5
Passive Diffusion Bag Sample Depth (ft. btoc)	Site Background Concentration		97.6-99.1	102.6-104.1		92.6-94.1	92.6-94.1											
Date Sampled			5/6/2004	5/6/2004	10/28/2004	4/8/2008	6/1/2010	6/2/2010	6/9/2011	1/18/2012	7/11/2012	1/10/2013	7/9/2013	1/9/2014	6/25/2014	1/13/2015	7/8/2015	12/15/2015
Laboratory			STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method			no purge/ PDB	no purge/ PDB	PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																		
Volatile Organic Compounds - SW8260B - (µg/L)																		
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,1,1-Trichloroethane		25,100	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,1-Dichloroethane		4000	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,1-Dichloroethene		950	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	**2.0**	**6.3**	**3.6**	<9.1	**4.8**	**5.8**	<1.0	**3.9**	**8.9**	**6.4**
1,2,3-Trichlorobenzene		NR	NA	NA	NA	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,2,4-Trichlorobenzene		70	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,2,4-Trimethylbenzene		NR	NA	NA	NA	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,3,5-Trimethylbenzene		NR	NA	NA	NA	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,4-Dioxane		29	<360	<250	<500	<500	<250	<290	NA	<100	<100	<450	<63	<150	NA	NA	NA	<2.0
Chloroform		80	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
cis-1,2-Dichloroethene		200	**40**	**33**	**52**	**120**	**150**	**170**	**210**	**310**	**270**	**320**	**360**	**316**	**10.7**	**316**	**407**	**414**
Ethylbenzene		700	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Hexachlorobutadiene		1	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
n-propylbenzene		NR	NA	NA	NA	<10.0	<5.0	<5.7	NA	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
p-Isopropyltoluene		NR	NA	NA	NA	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Methylene chloride		180	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<5.0	<1.0	<1.0	<9.1	<1.3	<2.0	<2.0	<5.0	<2.0	<8.0
Naphthalene		20	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<5.0	<5.0	<5.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Tetrachloroethene		5	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
trans-1,2-Dichloroethene		100	<7.2	<5.0	<10.0	<5.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Toluene		6,400	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Trichloroethene		70	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7	**2.0**	<1.0	<1.0	<9.1	<1.3	<1.0	**1**	<2.5	<1.0	<4.0
Vinyl Chloride		4	<2.9	<2.0	<4.0	<4.0	**15**	<5.7	<1.0	**2.0**	**1.8**	<9.1	**1.6**	**2.1**	**1.4**	<2.5	**4.7**	**5.0**
m&p-xylenes		10,000	NA	NA	NA	<10.0	<10.0	<11.0	<2.0	<1.0	<1.0	<18	<2.5	<2.0	<2.0	<5.0	<2.0	<8.0
o-xylene		10,000	NA	NA	NA	<10.0	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Total Xylenes		10,000	<7.2	<5.0	<10.0	<10.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA	NA	NA	<2.0	<2.0	<20	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<12.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)																		
Total Silver																		
Dissolved Silver																		
Total Cadmium																		
Dissolved Cadmium																		
Total Chromium																		
Dissolved Chromium																		
Total Lead																		
Dissolved Lead																		
Total Copper																		
Dissolved Copper																		
Total Nickel																		
Dissolved Nickel																		
Total Zinc																		
Dissolved Zinc																		

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A)	Highest RRSs Value (µg/L)	MW-21	MW-21A	MW-21B	MW-21C	MW-21	MW-21	MW-21	MW-21	MW-22	MW-22A	MW-22B	MW-22C	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22
Sample Depth (well screen interval) (ft. bgs)			89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'
Sample Depth (well screen interval) (ft. btoc)			89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7
Passive Diffusion Bag Sample Depth (ft. btoc)	Site Background Concentration			90.7-92.2	95.7-97.2	100.7-102.2	90.7-92.2	90.7-92.2	90.7-92.2			100-101.5	105-106.5	110-111.5	100-101.5	100-101.5	100-101.5			
Date Sampled			9/10/2003	5/7/2004	5/7/2004	5/7/2004	10/12/2004	4/8/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	9/10/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004	4/7/2008	6/1/2010	6/8/2011	1/17/2012	7/10/2012	1/10/2013
Laboratory			STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton
Purge Method/Sample Method			PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)										NOT SAMPLED per VIRP											
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane		4000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene		NR	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene		70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene		NR	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene		NR	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane		29	<200	<250	<250	<250	<250	<250	<50		<200	<250	<250	<250	<250	<250	<50	NA	<100	<100	NA
Chloroform		80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene		200	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0		<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene		700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene		1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene		NR	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene		NR	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride		180	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0
Naphthalene		20	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene		5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene		100	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0		<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene		6,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene		70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride		4	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
m&p-xylenes		10,000	NA	NA	NA	NA	NA	<5.0	<2.0		NA	NA	NA	NA	NA	<5.0	<2.0	<2.0	<1.0	<1.0	<2.0
o-xylene		10,000	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes		10,000	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA		<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver																					
Dissolved Silver																					
Total Cadmium																					
Dissolved Cadmium																					
Total Chromium																					
Dissolved Chromium																					
Total Lead																					
Dissolved Lead																					
Total Copper																					
Dissolved Copper																					
Total Nickel																					
Dissolved Nickel																					
Total Zinc																					
Dissolved Zinc																					

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A) Site Background Concentration	Highest RRSs Value (µg/L)	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-23	MW-23A	MW-23B	MW-23C	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-24	MW-24
Sample Depth (well screen interval) (ft. bgs)			98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	136.9'-146.7'	136.9'-146.7'	136.9'-146.7'	136.9'-146.7'
Sample Depth (well screen interval) (ft. btoc)			98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	136.7'-146.5'	136.7'-146.5'	136.7'-146.5'	136.7'-146.5'
Passive Diffusion Bag Sample Depth (ft. btoc)											92.1-93.6	97.1-98.6	102.1-103.5	92.1-93.6	92.1-93.6	92.1-93.6	92.1-93.6			143.3'-144.8'	143.3'-144.8'
Date Sampled			7/9/2013	1/9/2014	6/25/2014	1/13/2015	7/9/2015	9/30/2015	12/15/2015	9/11/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004	4/7/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	10/12/2004	10/28/2004	4/7/2008	6/1/2010
Laboratory			Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton		STL Savannah	STL North Canton	Test America - North Canton	Test America - North Canton
Purge Method/Sample Method			Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB
Constituent																					
Volatile Organic Compounds - SW8260B - (µg/L)																					
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP	<1.0	<5.0	<5.0	<1.0
1,1,1-Trichloroethane		25,100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
1,1-Dichloroethane		4000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
1,2,3-Trichlorobenzene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0
1,2,4-Trichlorobenzene		70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0
1,3,5-Trimethylbenzene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0
1,4-Dioxane		29	NA	NA	<150	<150	<150	<150	<150	<200	<250	<250	<250	<250	<250	<50		NA	<250	<250	<50
Chloroform		80	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene		200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0		<1.0	<5.0	<2.5	<1.0
Ethylbenzene		700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
Hexachlorobutadiene		1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
n-propylbenzene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0
p-Isopropyltoluene		NR	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0
Methylene chloride		180	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<1.0
Naphthalene		20	<5.0	<5.0	<1.0	<1.0	**2.8 B**	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
Tetrachloroethene		5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
trans-1,2-Dichloroethene		100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0		<1.0	<5.0	<2.5	<1.0
Toluene		6,400	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
Trichloroethene		70	<1.0	<1.0	<1.0	<1.0	**1.2**	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0
Vinyl Chloride		4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0		<1.0	<2.0	<2.0	<1.0
m&p-xylenes		10,000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	<5.0	<2.0		NA	NA	<5.0	<2.0
o-xylene		10,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0
Total Xylenes		10,000	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA		<1.0	<5.0	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																					
Total Silver																					
Dissolved Silver																					
Total Cadmium																					
Dissolved Cadmium																					
Total Chromium																					
Dissolved Chromium																					
Total Lead																					
Dissolved Lead																					
Total Copper																					
Dissolved Copper																					
Total Nickel																					
Dissolved Nickel																					
Total Zinc																					
Dissolved Zinc																					

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID Sample Depth (well screen interval) (ft. bgs) Sample Depth (well screen interval) (ft. btoc) Passive Diffusion Bag Sample Depth (ft. btoc) Date Sampled Laboratory Purge Method/Sample Method	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentration**	Highest RRSs Value (µg/L)	MW-24 136.9'-146.7' 136.7'-146.5' June 2011 January & July 2012, January & July 2013, January & June 2014, January,July&December 2015 Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 6/24/2010 Test America - North Canton Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 6/9/2011 Test America - Tampa Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 1/18/2012 AES-Atlanta Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 7/11/2012 AES-Atlanta Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 1/9/2013 Test America - North Canton Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 7/9/2013 Test America - North Canton Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 1/8/2014 Pace Analytical Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 6/26/2014 Pace Analytical Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 1/14/2015 Pace Analytical Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 7/9/2015 Pace Analytical Pump-LFLS	MW-25 91.8-106.8' 91.5-106.5' 12/16/2015 Pace Analytical Pump-LFLS	MW-26 1.0-6.0' 4.9-9.9' 10/20/2010 AES-Atlanta Pump-LFLS	MW-26 1.0-6.0' 4.9-9.9' 6/9/2011 Test America - Tampa Pump-LFLS	MW-26 1.0-6.0' 4.9-9.9' January & July 2012, January & July 2013, January & June 2014, January,July&December 2015	MW-27 2.2-7.2' 5.0-10.0' 10/20/2010 AES-Atlanta Pump-LFLS	MW-27 2.2-7.2' 5.0-10.0' 6/9/2011 Test America - Tampa Pump-LFLS	MW-27 2.2-7.2' 5.0-10.0' 1/18/2012 AES-Atlanta Pump-LFLS
Constituent																				
Volatile Organic Compounds - SW8260B - (µg/L)																				
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	NOT SAMPLED per VIRP	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	NOT SAMPLED per VIRP	<5.0	<1.0	<1.0
1,1,1-Trichloroethane		25,100		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0		<5.0	<1.0	<1.0
1,1-Dichloroethane		4000		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0		0	<1.0	<1.0
1,1-Dichloroethene		950		<83	**20**	**34**	**28**	<130	**27**	**20.9**	**26.1**	<40	**22.8**	**27**	<5.0	<1.0		<5.0	**1.2**	**2.4**
1,2,3-Trichlorobenzene		NR		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0		NA	<1.0	<1.0
1,2,4-Trichlorobenzene		70		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0		<5.0	<1.0	<1.0
1,2,4-Trimethylbenzene		NR		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0		NA	<1.0	<1.0
1,3,5-Trimethylbenzene		NR		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0		NA	<1.0	<1.0
1,4-Dioxane		29		<4200	NA	<100	<100	<6300	<630	<1500	NA	NA	NA	<25	<150	NA		<150	NA	<100
Chloroform		80		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0		<5.0	<1.0	<1.0
cis-1,2-Dichloroethene		200		**820**	**880**	**1000**	**860**	**860**	**840**	**772**	**731**	**732**	**748**	**798**	<5.0	<1.0		**5.2**	**6.6**	**10**
Ethylbenzene		700		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0		<5.0	<1.0	<1.0
Hexachlorobutadiene		1		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0		NA	<1.0	<1.0
n-propylbenzene		NR		<83	NA	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	NA		NA	NA	<1.0
p-Isopropyltoluene		NR		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0		NA	<1.0	<1.0
Methylene chloride		180		<83	<100	<1.0	<1.0	<130	<13	<20	<2.0	<80	<20	<50	<5.0	<5.0		<5.0	<5.0	<1.0
Naphthalene		20		<83	<100	<5.0	<5.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<5.0		NA	<5.0	<5.0
Tetrachloroethene		5		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0		<5.0	<1.0	<1.0
trans-1,2-Dichloroethene		100		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0		<5.0	<1.0	<1.0
Toluene		6,400		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0		<5.0	<1.0	<1.0
Trichloroethene		70		**2800**	**3600**	**4700**	**3900**	**4300**	**4500**	**3250**	**1830**	**3280**	**2290**	**3670**	<5.0	<1.0		**10**	**15**	**5.8**
Vinyl Chloride		4		<83	<20	**36**	**44**	<130	**21**	**21.9**	**46.3**	<40	**23.6**	<25	<2.0	<1.0		<2.0	<1.0	<1.0
m&p-xylenes		10,000		<170	<40	<1.0	<1.0	<250	<25	<20	<2.0	<80	<20	<50	NA	<2.0		NA	<2.0	<1.0
o-xylene		10,000		<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0		NA	<1.0	<1.0
Total Xylenes		10,000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	NA		<5.0	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29		<17	<20	<5.0	<5.0	<25	<2.0	<2.0	**3.3**	<2.0	<14	<2.0	NA	<2.0		NA	<2.0	<5.0
Site-Specific Metals - SW6010B - (mg/L)																				
Total Silver																				
Dissolved Silver																				
Total Cadmium																				
Dissolved Cadmium																				
Total Chromium																				
Dissolved Chromium																				
Total Lead																				
Dissolved Lead																				
Total Copper																				
Dissolved Copper																				
Total Nickel																				
Dissolved Nickel																				
Total Zinc																				
Dissolved Zinc																				

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28
Sample Depth (well screen interval) (ft. bgs)			2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'
Sample Depth (well screen interval) (ft. btoc)			5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'
Passive Diffusion Bag Sample Depth (ft. btoc)	**Site Background Concentration**																
Date Sampled		Highest RRSs Value (µg/L)	7/11/2012	1/9/2013	7/10/2013	1/8/2014	6/25/2014	1/13/2015	7/8/2015	12/15/2015	10/20/2010	6/9/2011	1/18/2012	7/11/2012	1/9/2013	7/10/2013	1/8/2014
Laboratory				Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	AES-Atlanta	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical
Purge Method/Sample Method				Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																	
Volatile Organic Compounds - SW8260B - (µg/L)																	
1,1,1,2-Tetrachloroethane		70		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane		25,100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane		4000		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene		950		**2.9**	**1.2**	**3.6**	<1.0	**2.2**	**1.2**	**2.5**	<5.0	**1.4**	**1.8**	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene		NR		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene		70		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene		NR		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene		NR		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane		29		<50	<50	<150	NA	NA	NA	NA	<150	NA	<100	<100	<50	<50	<150
Chloroform	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	80	NOT SAMPLED WELL WAS DRY	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene		200		**9.2**	**9.2**	**16.9**	**4.4**	**11.4**	**6.2**	**26.6**	**9.4**	**18**	**14**	**12**	**4.7**	**7.2**	**8.2**
Ethylbenzene		700		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene		1		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene		NR		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene		NR		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride		180		<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0
Naphthalene		20		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Tetrachloroethene		5		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene		100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene		6,400		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene		70		**13**	**13**	**16**	**4.1**	**21.5**	**17.0**	**8.2**	<5.0	**4.5**	**4.3**	**3.5**	<1.0	**1.2**	**1.5**
Vinyl Chloride		4		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	**1.0**	<1.0	**1.1**	<1.0	<1.0	<1.0
m&p-xylenes		10,000		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0
o-xylene		10,000		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes		10,000		NA	NA	NA	NA	NA	NA	NA	<5.0	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29		<2.0	<2.0	<2.0	<2.0	<2.0	<16	<2.0	NA	<2.0	<5.0	<5.0	<2.0	<2.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)																	
Total Silver																	
Dissolved Silver																	
Total Cadmium																	
Dissolved Cadmium																	
Total Chromium																	
Dissolved Chromium																	
Total Lead																	
Dissolved Lead																	
Total Copper																	
Dissolved Copper																	
Total Nickel																	
Dissolved Nickel																	
Total Zinc																	
Dissolved Zinc																	

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Sample ID	VRP Delineation Criteria 12-8-108(1)(A)	Highest RRSs Value (µg/L)	MW-28	MW-28	MW-28	MW-28
Sample Depth (well screen interval) (ft. bgs)			2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'
Sample Depth (well screen interval) (ft. btoc)			5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'
Passive Diffusion Bag Sample Depth (ft. btoc)	Site Background Concentration					
Date Sampled			6/25/2014	1/13/2015	7/8/2015	12/15/2015
Laboratory			Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method			Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent						
Volatile Organic Compounds - SW8260B - (µg/L)						
1,1,1,2-Tetrachloroethane	Site Background for VOCs is defined as the non-detection of constiuent concentrations above laboratory quantitation limits	70	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane		25,100	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane		4000	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene		950	**2.4**	**2.7**	**3.6**	**3.1**
1,2,3-Trichlorobenzene		NR	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene		70	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene		NR	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene		NR	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane		29	NA	NA	NA	NA
Chloroform		80	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene		200	**18.7**	**20.1**	**23.5**	**26.6**
Ethylbenzene		700	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene		1	<1.0	<1.0	<1.0	<1.0
n-propylbenzene		NR	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene		NR	<1.0	<1.0	<1.0	<1.0
Methylene chloride		180	<2.0	<2.0	<2.0	<2.0
Naphthalene		20	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene		5	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene		100	<1.0	<1.0	<1.0	<1.0
Toluene		6,400	<1.0	<1.0	<1.0	<1.0
Trichloroethene		70	**3.6**	**5.2**	**5.5**	**6.3**
Vinyl Chloride		4	<1.0	<1.0	**1.0**	<1.0
m&p-xylenes		10,000	<2.0	<2.0	<2.0	<2.0
o-xylene		10,000	<1.0	<1.0	<1.0	<1.0
Total Xylenes		10,000	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		29	<2.0	<2.0	<18	<2.0
Site-Specific Metals - SW6010B - (mg/L)						
Total Silver						
Dissolved Silver						
Total Cadmium						
Dissolved Cadmium						
Total Chromium						
Dissolved Chromium						
Total Lead						
Dissolved Lead						
Total Copper						
Dissolved Copper						
Total Nickel						
Dissolved Nickel						
Total Zinc						
Dissolved Zinc						

Notes:

NA	Constituent not analyzed
ft. bgs	Feet below ground surface
B	Result may be a false positive or biased high based upon detection of constituent
E	Estimated concentration
btoc	Below top of well casing
mg/L	Milligrams per liter
µg/L	Micrograms per liter
Pump LFLS/ Bailer	Well was purged using the low flow/low stress method with a submersible pump and clean dedicated tubing and the groundwater sample was collected using a disposable teflon bailer and rope.
Bailer/Bailer	Well was purged and sampled with a bailer.
Pump-LFLS	Well was purged and sampled using the low flow/low stress method with a submersible bladder or peristaltic pump and clean dedicated tubing
no purge/PDB	Well was not purged, groundwater sample collected with Passive Diffusion Bag Sampler
VIRP	Voluntary Investigation and Remediation Plan
	Exceeds Georgia RRS
BOLD	**Detected Concentration**

Prepared By: MHA 7/29/2015 DP 1/7/2016
Checked By: RNQ 8/13/2015 RNQ 1/14/2016

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Boring Number	**VRP Delineation Criteria 12-8-108(1)(A)**	*Highest RRS* (µg/L)	GW-E-1		GW-E-2	GW-E-3			GW-E-4		
Sample ID			GW-E-1	GW-E-1	GW-E-2	GW-E-3	GW-E-3	GW-E-3	GW-E-4	GW-E-4	GW-E-4
Sample Depth (ft. bgs)			34'	48'	55'	44'-48'	52'-56'	56'-60'	44'-48'	48'-52'	60'-61'
Date Sampled	**Site Background**		9/25/2000	9/26/2000	9/26/2000	10/2/2000	10/2/2000	10/2/2000	9/27/2000	9/27/2000	9/27/2000
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<5.0	<5.0	<5.0	**2800**	**13**	**8.2**	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	**440**	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		200	<2.5	<2.5	<2.5	<62	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride		180	<5.0	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene		6400	<5.0	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene		70	<5.0	<5.0	**7.7**	1800	**35**	**41**	**16**	<5.0	**5.8**

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Boring Number	**VRP Delineation**	*Highest*	GW-E-5			GW-E-6			GW-E-7		
Sample ID	**Criteria**	*RRS*	GW-E-5	GW-E-5	GW-E-5	GW-E-6	GW-E-6	GW-E-6	GW-E-7	GW-E-7	GW-E-7
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	40'-44'	44'-48'	54'-58'	40'-44'	52'-56'	56'-60'	31'-35'	35'-39'	48'-52'
Date Sampled	**Site**		9/28/2000	9/28/2000	10/10/2000	10/3/2000	10/3/2000	10/4/2000	10/3/2000	10/3/2000	10/3/2000
Constituent	**Background**										
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	Site Background is	200	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride	defined as the non-	180	<5.0	<5.0	14 B	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	detection of regulated	6400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	substances above laboratory quantitation limits										
Trichloroethene		70	**20**	<5.0	<5.0	<5.0	<5.0	<5.0	**8.4**	<5.0	<5.0

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Boring Number	**VRP Delineation**	*Highest*	GW-E-8			GW-E-9			GW-E-10		GW-E-11		
Sample ID	**Criteria**	*RRS*	GW-E-8	GW-E-8	GW-E-8	GW-E-9	GW-E-9	GW-E-9	GW-E-10	GW-E-10	GW-E-11	GW-E-11	GW-E-11
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	40'-44'	44'-48'	50'-54'	38'-42'	44'-48'	50'-54'	44'-48'	48'-52'	44'-48'	50'-54'	54'-58'
Date Sampled	**Site**		10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/5/2000	10/5/2000	10/5/2000
Constituent	**Background**												
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**												
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	**34**	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	**23**	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<5.0
cis-1,2-Dichloroethene	Site Background is	200	<2.5	<2.5	<2.5	<3.6	<2.5	<2.5	<2.5	<2.5	**12**	<2.5	<2.5
Methylene chloride	defined as the non-	180	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<5.0
Toluene	detection of regulated	6400	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<5.0
	substances above laboratory quantitation limits												
Trichloroethene		70	**21**	<5.0	**13**	**170**	**38**	**10**	**38**	<5.0	**520**	**26**	**150**

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Boring Number	**VRP Delineation Criteria 12-8-108(1)(A)**	*Highest RRS* (µg/L)	GW-E-12			GW-E-13			GW-E-14			GW-E-15		
Sample ID			GW-E-12	GW-E-12	GW-E-12	GW-E-13	GW-E-13	GW-E-13	GW-E-14	GW-E-14	GW-E-14	GW-E-15	GW-E-15	GW-E-15
Sample Depth (ft. bgs)			40'-44'	44'-48'	50'-54'	44'-48'	48'-52'	56'-60'	48'-52'	52'-56'	56'-60'	48'-52'	54'-58'	61'-65'
Date Sampled	**Site Background**		10/5/2000	10/5/2000	10/6/2000	10/9/2000	10/9/2000	10/9/2000	10/6/2000	10/6/2000	10/6/2000	10/11/2000	10/11/2000	10/11/2000
Constituent														
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**													
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	**180**	**24**	<170	**500**	**50**	**12**	**1400**	**1300**	**34**	**53**	<5.0	<5.0
1,1-Dichloroethene		950	<120	<17	<170	**210**	**17**	<5.0	**260**	**310**	**7.9**	<25	<5.0	<5.0
Chloroform		80	<120	<17	<170	<100	<10	<5.0	<50	<42	<5.0	<25	<5.0	<5.0
cis-1,2-Dichloroethene		200	<62	<8.3	<83	**110**	**9.2**	<2.5	**69**	**68**	<2.5	**13**	<2.5	<2.5
Methylene chloride		180	<120	<17	<170	<100	12 B	12 B	<50	<42	<5.0	39 B	13 B	9.9 B
Toluene		6400	<120	<17	<170	<100	<10	<5.0	<50	<42	<5.0	<25	<5.0	<5.0
Trichloroethene		70	**3900**	**460**	**4200**	**3300**	**280**	**140**	**1500**	**1500**	**67**	**610**	**87**	**10**

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Boring Number	**VRP Delineation**	*Highest*	GW-E-16			GW-E-17			GW-E-18		
Sample ID	**Criteria**	*RRS*	GW-E-16	GW-E-16	GW-E-16	GW-E-17	GW-E-17	GW-E-17	GW-E-18	GW-E-18	GW-E-18
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	40'-44'	50'-54'	57'-61'	48'-52'	55'-59'	62'-66'	51'-55'	60'-64'	68'-72'
Date Sampled	**Site**		10/13/2000	10/13/2000	10/13/2000	10/26/2000	10/26/2000	10/26/2000	10/25/2000	10/25/2000	10/25/2000
Constituent	**Background**										
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	Site Background is	200	**25**	<2.5	<62	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride	defined as the non-	180	14 B	15 B	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	detection of regulated	6400	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	substances above laboratory quantitation limits										
Trichloroethene		70	**7.9**	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Boring Number	**VRP Delineation Criteria 12-8-108(1)(A)**	*Highest RRS* (µg/L)	GW-E-19	GW-E-19	GW-E-19	GW-AOC 1-1	GW-AOC 1-1	GW-AOC 1-1	GW-AOC 2-1	GW-AOC 2-1	GW-AOC 2-1
Sample ID			GW-E-19	GW-E-19	GW-E-19	GW-AOC 1-1	GW-AOC 1-1	GW-AOC 1-1	GW-AOC 2-1	GW-AOC 2-1	GW-AOC 2-1
Sample Depth (ft. bgs)			51'-55'	59'-63'	70'-74'	40'-44'	52'-56'	59'-63'	42'-46'	52'-56'	62'-66'
Date Sampled	**Site Background**		10/25/2000	10/25/2000	10/25/2000	10/31/2000	10/31/2000	10/31/2000	10/17/2000	10/17/2000	10/17/2000
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<5.0	<5.0	<5.0	**83000**	**37000**	**1100**	**14**	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<4200	**2000**	<50	**9.4**	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<5.0	<4200	<1000	<50	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		200	<2.5	<2.5	<2.5	<2100	<500	<25	<2.5	<2.5	<2.5
Methylene chloride		180	17 B	26 B	18 B	<4200	<1000	<50	6.3 B	<5.0	12 B
Toluene		6400	<5.0	<5.0	<5.0	<4200	<1000	<50	<5.0	<5.0	<5.0
Trichloroethene		70	<5.0	<5.0	<5.0	**10000**	**4100**	**120**	**41**	**5.0**	**23**

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Boring Number	**VRP Delineation Criteria 12-8-108(1)(A)**	*Highest RRS* (µg/L)	GW-AOC 3-1			GW-AOC 3-2			GW-AOC 8-1		
Sample ID			GW-AOC 3-1 40'-44'	GW-AOC 3-1 50'-54'	GW-AOC 3-1 55'-59'	GW-AOC 3-2 40'-44'	GW-AOC 3-2 48'-52'	GW-AOC 3-2 60'-64'	GW-AOC 8-1 40'-44'	GW-AOC 8-1 49'-53'	GW-AOC 8-1 58'-62'
Sample Depth (ft. bgs)											
Date Sampled	**Site Background**		11/1/2000	11/1/2000	11/1/2000	10/30/2000	10/30/2000	10/30/2000	10/18/2000	10/19/2000	10/19/2000
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	**2700**	**1500**	**550**	**5600**	**39**	**9.9**	**3800**	**6.4**	**8.6**
1,1-Dichloroethene		950	**860**	**530**	**200**	**1200**	**13**	<5.0	**790**	<5.0	<5.0
Chloroform		80	<250	<170	<100	<500	<10	<5.0	<500	<5.0	<5.0
cis-1,2-Dichloroethene		200	**190**	**100**	**32 J**	**270**	**8.3**	<2.5	**300**	<2.5	<2.5
Methylene chloride		180	<250	<170	<100	<500	<10	<5.0	<500	<5.0	11 B
Toluene		6400	<250	<170	<100	<500	<10	<5.0	<500	<5.0	<5.0
Trichloroethene		70	**7900**	**6300**	2200	**7200**	**230**	**19**	**8600**	**23**	**28**

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Boring Number	**VRP Delineation Criteria 12-8-108(1)(A)**	*Highest RRS* (µg/L)	GW-AOC 8-2			GW-AOC 9-1			GW-AOC 9-2		
Sample ID			GW-AOC 8-2 42'-46'	GW-AOC 8-2 50'-54'	GW-AOC 8-2 56'-60'	GW-AOC 9-1 40'-44'	GW-AOC 9-1 50'-54'	GW-AOC 9-1 58'-62'	GW-AOC 9-2 44'-48'	GW-AOC 9-2 50'-54'	GW-AOC 9-2 58'-62'
Sample Depth (ft. bgs)											
Date Sampled	**Site Background**		10/19/2000	10/19/2000	10/19/2000	10/19/2000	10/20/2000	10/20/2000	10/20/2000	10/20/2000	10/20/2000
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane		25,100	**8000**	**55**	**94**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	**1300**	**9.2**	**29**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		80	<250	<5.0	<17	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	200	**230**	**9.9**	**20**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride		180	840 B	<5.0	<17	13 B	15 B	15 B	<5.0	<5.0	11 B
Toluene		6400	<250	<5.0	<17	<5.0	<5.0	**6.8**	<5.0	**5.9**	<5.0
Trichloroethene		70	**6000**	**170**	**420**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

TABLE 2.3-3: Summary of Detected Constituents in Groundwater Samples

Boring Number	**VRP Delineation**	*Highest*	GW-AOC 10-1			SB-113		SB-114		SB-115		SB-118	
Sample ID	**Criteria**	*RRS*	GW-AOC 10-1	GW-AOC 10-1	GW-AOC 10-1	SB-113	SB-113	SB-114	SB-114	SB-115	SB-115	SB-118	SB-118
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	44'-48'	52'-56'	60'-64'	43.5'-47.5'	57'-62'	45'-48'	60'-65'	24'-27'	33'-37'	6'-10'	17'-21'
Date Sampled	**Site**		10/18/2000	10/18/2000	10/18/2000	2/5/2003	2/5/2003	2/5/2003	2/6/2003	3/13/2003	3/13/2003	3/26/2003	3/26/2003
Constituent	**Background**												
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**												
1,1,1-Trichloroethane		25,100	**2700**	**9.4**	**77**	<3.3	<1.0	**270**	**2.7**	<42	<5.0	<17	<5.0
1,1-Dichloroethene		950	**430**	<5.0	**19**	<3.3	<1.0	**72**	<1.0	<42	<5.0	<17	<5.0
Chloroform		80	<170	<5.0	<10	<3.3	**1.2**	<25	**1**	<42	<5.0	<17	<5.0
cis-1,2-Dichloroethene	Site Background is	200	<83	<2.5	**11**	<1.7	<0.5	**27**	<0.5	<21	<2.5	**9.6**	<2.5
Methylene chloride	defined as the non-	180	<170	<5.0	<10	<3.3	<1.0	<25	<1.0	<42	<5.0	<17	<5.0
Toluene	detection of regulated	6400	<170	<5.0	<10	<3.3	<1.0	<25	<1.0	<42	<5.0	<17	<5.0
	substances above laboratory quantitation limits												
Trichloroethene		70	**2000**	**27**	**260**	**93**	**20**	**700**	**13**	**780**	<5.0	**560**	**32**

Notes:

na	Constituent not analyzed
bgs	Below ground surface
ft. bgs	Feet below ground surface
B	Result may be a false positive or biased high based upon blank data.
btoc	Below top of well casing
mg/L	Milligrams per liter
µg/L	Micrograms per liter
GW	Designates that groundwater sample was collected from a direct push technology (DPT) boring.
SB	Designates that groundwater sample was collected from a DPT boring or via rotosonic soil coring.
RRS	Risk Reduction Standard
J	Estimated; result detected below the reporting limit but above the method detection limit or result is estimated based on the QC data.
	Concentration exceeds Types 1-4 RRSs

Prepared By: RNQ 2/22/07
Checked By: JAH 2/23/07

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #1			Manson Branch #2 (MB#2)										
Sample Location		Surface water in Manson Branch south side of Hwy 24 Bridge			Seep in a Draw Down Slope of Thermo King plant building										
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	5/3/2000			5/3/2000			11/2/2000	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010
Laboratory		Lancaster Labs	STL-North Canton	Savannah Labs	Lancaster Labs	STL-North Canton	Savannah Labs	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)															
1,1,1-Trichloroethane	not established	<5.0	<5.0	<5.0	**200**	**160**	**170**	**290**	**15**	**39**	**300**	**1900**	**320**	**8.4**	
1,1,2-Trichloroethane	16	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	
1,1-Dichloroethene	7100	<5.0	<5.0	<5.0	**69**	**50**	**52**	**97**	**12**	**24**	<250	**1000**	**210**	**11**	
1,1-Dichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	
1,4-Dioxane	not established	<250	<250	NA	<250	<830	NA	<1200	<200	<330	<12000	<31000	<9600	<250	
Bromomethane	1500	<5.0	<10.0	<5.0	<5.0	<10.0	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<10.0	
Chloroethane	not established	<5.0	<10.0	<5.0	<5.0	<33	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<10.0	
Chloroform	470	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	
cis-1,2-Dichloroethene	not established	<5.0	<2.5	<5.0	**36**	**30**	**27**	**59**	**36**	**61**	<250	<620	<190	**89**	DRY
Ethylbenzene	2100	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	Not Sampled
p-Isopropyltoluene	not established	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	NA	NA	NA	NA	NA	<5.0	
Toluene	5980	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	
trans-1,2-Dichloroethene	10000	<5.0	<2.5	<5.0	<5.0	<8.3	<5.0	<12	<2.0	<6.7	<250	<620	<190	<2.5	
Trichloroethene	30	<5.0	<5.0	<5.0	**490**	**460**	**440**	**720**	**120**	**210**	**1300**	**4400**	**930**	**310**	
Vinyl Chloride	2.4	<2.0	<5.0	<5.0	<2.0	<6.7	<2.0	<10.0	<4.0	<6.7	<100	<250	<77	<4.0	
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #2 (MB#2)													
Sample Location		Seep in a Draw Down Slope of Thermo King plant building													
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/2/2010	6/7/2011	1/17/2012	7/10/2012	8/7/2012	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015
Laboratory		Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)															
1,1,1-Trichloroethane	not established	**61**	**21**	**13**	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<50	**1.2**	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	**160**	**50**	**53**	**7.3**	**1.4**	**20**	**17**	**14**	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	not established	<50	**1.5**	**1.5**	**2.5**	**4.4**	**6.9**	**8.2**	**8.7**	**3.1**	**2.4**	**4.7**	**3.2**	**2.2**	**3.1**
1,4-Dioxane	not established	<2500	NA	<100	<100	<100	NA	<250	<50	<50	<150	<150	<150	<150	<150
Bromomethane	1500	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	**2**	<2.0	<2.0	<2.0
Chloroethane	not established	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**3.8**	**1.3**	<1.0	**1.8**	<1.0	<1.0	<1.0
Chloroform	470	<50	**1.5**	**1.3**	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	**180**	**70**	**85**	**95**	**46**	**170**	**170**	**130**	**18**	**6.5**	**12.2**	**3.8**	**3.3**	**6.8**
Ethylbenzene	2100	<50	<1.0	<1.0	**4.6**	**13**	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	<50	<1.0	<1.0	**5.0**	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5980	<50	**2.5**	<1.0	**180**	**22**	<1.0	<5.0	<1.0	<1.0	<1.0	**5.1**	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<50	<1.0	<1.0	<1.0	**2.3**	**2.2**	<5.0	**2.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	**1700**	**280**	**340**	**16**	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.4	<50	**2.5**	**2.5**	**20**	**9.3**	**84**	**71**	**81**	**21**	**13.8**	**31**	**15**	**12.4**	**30.6**
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	<20	NA	NA	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #3 (MB#3)										
Sample Location		Surface water in Manson Branch located 500 ft downstream of Hwy 24										
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/7/2000	6/7/2011	1/17/2012	7/10/2012	1/8/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/10/2015	12/16/2015
Laboratory		STL- North Canton	TestAmerica - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)												
1,1,1-Trichloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	<250	NA	<100	<100	<50	<50	<150	<150	<150	<150	<150
Bromomethane	1500	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	not established	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	470	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	2100	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5980	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.4	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #4	Manson Branch #5 (MB#5)										
Sample Location		Surface water in Manson Branch located 700 ft downstream of Hwy 24	Surface water in Manson Branch located 900 ft downstream of Hwy 24										
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/7/2000	6/7/2000	6/7/2011	1/17/2012	7/10/2012	1/8/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/10/2015	12/16/2015
Laboratory		STL- North Canton	STL- North Canton	TestAmerica - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)													
1,1,1-Trichloroethane	not established	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	not established	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	<250	<250	NA	<100	<100	<50	<50	<150	<150	<150	<150	<150
Bromomethane	1500	<10.0	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	not established	<10.0	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	470	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	2100	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5980	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.4	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #6	Manson Branch #7	Manson Branch #8	Manson Branch #9	Manson Branch #10	Manson Branch #11	Manson Branch #12	Manson Branch #14		
Sample Location		Surface water in Manson Branch located 1100 ft downstream of Hwy 24	Surface water in Manson Branch located 1300 ft downstream of Hwy 24	Surface water in Manson Branch located 1575 ft downstream of Hwy 24	Surface water in Manson Branch located 2900 ft upstream of Hwy 17	Surface water in Manson Branch located 2100 ft upstream of Hwy 17	Surface water in Manson Branch located 1200 ft upstream of Hwy 17	Surface water in Manson Branch located at Hwy 17 bridge	Surface water in Manson Branch located at Hwy 24 bridge		
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/7/2000	6/7/2000	6/7/2000	6/6/2000	6/6/2000	6/6/2000	6/6/2000	1/15/2003	2/26/2008	4/22/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)											
1,1,1-Trichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
1,1,2-Trichloroethane	16	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0
1,1-Dichloroethene	7100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
1,1-Dichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0
1,4-Dioxane	not established	<250	<250	<250	<250	<250	<250	<250	<200	<250	<250
Bromomethane	1500	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<1.0	<10.0	<10.0
Chloroethane	not established	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<1.0	<10.0	<10.0
Chloroform	470	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0
cis-1,2-Dichloroethene	not established	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<0.50	<2.5	<2.5
Ethylbenzene	2100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
p-Isopropyltoluene	not established	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0
Toluene	5980	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
trans-1,2-Dichloroethene	10000	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<0.50	<2.5	<2.5
Trichloroethene	30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
Vinyl Chloride	2.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #15 (MB#15)												
Sample Location		Surface water in Manson Branch located about 450 ft downstream of Hwy 24 bridge												
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	2/27/2008	4/21/2010	6/7/2011	1/17/2012	7/10/2012	1/8/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/10/2015	12/16/2015
Laboratory		STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)														
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	<200	<250	<250	NA	<100	<100	<50	<50	<150	<150	<150	<150	<150
Bromomethane	1500	<1.0	<10.0	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	not established	<1.0	<10.0	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	470	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	<0.50	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	2100	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	NA	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5980	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<0.50	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #16 (MB#16)												
Sample Location		Surface water in Manson Branch located about 700 ft downstream of Hwy 24 bridge, opposite side of stream from wells MW-16/MW-18												
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	2/27/2008	4/21/2010	6/7/2011	1/17/2012	7/10/2012	1/8/2013	7/10/2013	1/9/2014	6/27/2014	1/14/2015	7/10/2015	12/1562015
Laboratory		STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical		Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)														
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,4-Dioxane	not established	<200	<250	<250	NA	<100		<50	<50	<150		<150	<150	<150
Bromomethane	1500	<1.0	<10.0	<10.0	<5.0	<5.0		<1.0	<1.0	<2.0		<2.0	<2.0	<2.0
Chloroethane	not established	<1.0	<10.0	<10.0	<5.0	<5.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
Chloroform	470	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	<0.50	<2.5	<2.5	<1.0	<1.0	DRY	<1.0	<1.0	<1.0	DRY	<1.0	<1.0	<1.0
Ethylbenzene	2100	<1.0	<5.0	<5.0	<1.0	<1.0	Not Sampled	<1.0	<1.0	<1.0	Not Sampled	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	NA	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
Toluene	5980	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<0.50	<2.5	<2.5	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
Trichloroethene	30	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	<2.0	NA		NA	NA	NA		NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch Seep West #2 (Seep #2)												
Sample Location		Seep Located 350 ft downstream of Hwy 24 on the west bank												
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/7/2000	11/2/2000	1/15/2003	3/24/2004	6/23/2004	8/30/2004	11/17/2004	2/27/2008	4/21/2010	6/7/2011	1/17/2012	7/10/2012	8/7/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	AES-Atlanta
CONSTITUENT (µg/L)														
1,1,1-Trichloroethane	not established	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	**1.7**	<1.0	<1.0
1,1-Dichloroethane	not established	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	<250	<250	<200	<250	<250	<250	<250	<250	<250	NA	<100	<100	<100
Bromomethane	1500	<10.0	<10.0	<1.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	not established	<10.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	<5.0
Chloroform	470	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	**3.8**	**7.9**	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5	**4.4**	**5.7**	**4.0**	**8.2**
Ethylbenzene	2100	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	<5.0	<5.0	NA	NA	NA	NA	NA	<5.0	<5.0	**4.5**	<1.0	<1.0	<1.0
Toluene	5980	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**2.0**	<1.0	**33**	**26**
trans-1,2-Dichloroethene	10000	<2.5	<2.5	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	<5.0	**5.4**	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	**7.4**	<1.0	**1.4**
Vinyl Chloride	2.4	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**1.4**	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	<5.0

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch Seep West #2 (Seep #2)								
Sample Location		Seep Located 350 ft downstream of Hwy 24 on the west bank								
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015
Laboratory		AES-Atlanta	TestAmerica - NorthCanton	TestAmerica - NorthCanton	TestAmerica - NorthCanton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	**3.7**	**4.6**	**3.1**	**1.2**	<1.0	<1.0	<1.0	<1.0	**1.0**
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	NA	<50	<50	<50	<150	<150	<150	<150	<150
Bromomethane	1500	<5.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	**23**	**21**	**18**	**11**	**3**	**7.1**	**3.9**	**13.4**	**8.1**
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	**2.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5980	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	**23**	**26**	**13**	**4.5**	**2.5**	**1.7**	**6.1**	**1.0**	**6.9**
Vinyl Chloride	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	<5.0	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep A						
Sample Location		Northeast CornerThermo King Eastern Parcel						
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/21/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)								
1,1,1-Trichloroethane	not established	<1.0		<5.0	<5.0		<5.0	
1,1,2-Trichloroethane	16	<1.0		<5.0	<5.0		<5.0	
1,1-Dichloroethene	7100	<1.0		<5.0	<5.0		<5.0	
1,1-Dichloroethane	not established	<1.0		<5.0	<5.0		<5.0	
1,4-Dioxane	not established	<200		<250	<250		<250	
Bromomethane	1500	<1.0		<5.0	<5.0		<10.0	
Chloroethane	not established	<1.0		<5.0	<5.0		<10.0	
Chloroform	470	<1.0		<5.0	<5.0		<5.0	
cis-1,2-Dichloroethene	not established	<0.50	DRY	<5.0	<5.0	DRY	<2.5	DRY
Ethylbenzene	2100	<1.0	Not Sampled	<5.0	<5.0	Not Sampled	<5.0	Not Sampled
p-Isopropyltoluene	not established	NA		NA	NA		<5.0	
Toluene	5980	<1.0		<5.0	<5.0		<5.0	
trans-1,2-Dichloroethene	10000	<0.50		<5.0	<5.0		<2.5	
Trichloroethene	30	<1.0		<5.0	<5.0		<5.0	
Vinyl Chloride	2.4	<1.0		<2.0	<2.0		<2.0	
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA		NA	NA		NA	

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep B											
Sample Location		Thermo King Eastern Parcel											
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/30/2004	11/17/2004	2/27/2008	4/21/2010	6/3/2010	June 2011	1/17/2012	7/10/2012	8/7/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES- Atlanta	AES- Atlanta
CONSTITUENT (µg/L)													
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<5.0	**10**	<5.0				<1.0		
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
1,4-Dioxane	not established	<200	<250	<250	<250	<420	<250				<100		
Bromomethane	1500	<1.0	<5.0	<5.0	<5.0	<8.4	<10.0				<5.0		
Chloroethane	not established	<1.0	<5.0	<5.0	<5.0	<8.4	<10.0				<5.0		
Chloroform	470	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
cis-1,2-Dichloroethene	not established	<0.50	<5.0	<5.0	<5.0	**16**	<2.5	DRY	DRY	DRY	<1.0	DRY	DRY
Ethylbenzene	2100	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0	Not Sampled	Not Sampled	Not Sampled	<1.0	Not Sampled	Not Sampled
p-Isopropyltoluene	not established	NA	NA	NA	NA	NA	<5.0				<1.0		
Toluene	5980	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
trans-1,2-Dichloroethene	10000	<0.50	<5.0	<5.0	<5.0	<8.4	<2.5				<1.0		
Trichloroethene	30	<1.0	<5.0	<5.0	<5.0	**41**	<5.0				**2.9**		
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<2.0	<3.3	<2.0				<1.0		
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA				NA		

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep B								
Sample Location		Thermo King Eastern Parcel								
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015
Laboratory		AES- Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical		Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,1-Dichloroethene	7100	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,4-Dioxane	not established	NA	<50	<50	<50	<150		<150		<150
Bromomethane	1500	<5.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Chloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
cis-1,2-Dichloroethene	not established	<1.0	<1.0	**27**	**5.2**	**3**	DRY	**9.3**	DRY	**7.9**
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	Not Sampled	<1.0	Not Sampled	<1.0
p-Isopropyltoluene	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Toluene	5980	<1.0	<1.0	**12**	**1.5**	<1.0		<1.0		**1.7**
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Trichloroethene	30	<1.0	<1.0	**6.3**	**1.2**	**1.4**		**2**		**1.5**
Vinyl Chloride	2.4	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	<5.0	NA	NA	NA	NA		NA		NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep C											
Sample Location		Thermo King Eastern Parcel, down slope of the draw											
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010	6/2/2010	6/7/2011	1/17/2012	7/10/2012 (not sampled at Seep C location)	8/7/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	AES-Atlanta
CONSTITUENT (µg/L)													
1,1,1-Trichloroethane	not established	**120**	<140	<5.0	**380**	**380**	**49**	**28**	NA	**32**	**32**	<1.0	
1,1,2-Trichloroethane	16	<25	<140	<5.0	<310	<190	<10.0	<12	NA	**1.0**	<1.0	<1.0	
1,1-Dichloroethene	7100	**110**	<140	<5.0	<310	**240**	**99**	**64**	NA	**87**	**140**	**1.8**	Seep C
1,1-Dichloroethane	not established	<25	<140	<5.0	<310	<190	<10.0	<12	NA	<1.0	**4.0**	**7.3**	covered
1,4-Dioxane	not established	<1200	<7100	<250	<16000	<9600	<500	<620	NA	NA	<100	<100	with
Bromomethane	1500	<1.0	<140	<5.0	<310	<190	<20.0	<25	NA	<5.0	<5.0	<5.0	rip-rap
Chloroethane	not established	<25	<140	<5.0	<310	<190	<20.0	<25	NA	<5.0	<5.0	<5.0	and is no
Chloroform	470	<25	<140	<5.0	<310	<190	<10.0	<12	NA	**2.3**	**2.5**	<1.0	longer
cis-1,2-Dichloroethene	not established	**13**	<140	<5.0	<310	<190	**11**	**12**	NA	**19**	**130**	**32**	sampled
Ethylbenzene	2100	<25	<140	<5.0	<310	<190	<10.0	<12	NA	<1.0	<1.0	**25**	
p-Isopropyltoluene	not established	NA	NA	NA	NA	NA	<10.0	<12	NA	<1.0	<1.0	<1.0	
Toluene	5980	<25	<140	<5.0	<310	<190	<10.0	<12	NA	<1.0	<1.0	**180**	
trans-1,2-Dichloroethene	10000	<12	<140	<5.0	<310	<190	<5.0	<12	NA	<1.0	<1.0	<1.0	
Trichloroethene	30	**840**	**720**	<5.0	**1300**	**1000**	**670**	**500**	NA	**530**	**880**	<1.0	
Vinyl Chloride	2.4	<25	<57	<2.0	<120	<77	<10.0	<12	NA	<1.0	**11**	**14**	
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	<5.0	<20	NA	NA	

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep D						
Sample Location		Thermo King Eastern Parcel						
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)								
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dioxane	not established	<200	<250	<250	<250	<250	<250	<250
Bromomethane	1500	<1.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0
Chloroethane	not established	<1.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0
Chloroform	470	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5
Ethylbenzene	2100	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
p-Isopropyltoluene	not established	NA	NA	NA	NA	NA	<5.0	<5.0
Toluene	5980	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10000	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5
Trichloroethene	30	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep G											
Sample Location		Thermo King Eastern Parcel											
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/21/2010	June 2011	1/17/2012	7/10/2012	8/7/2012	11/19/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	AES-Atlanta	AES-Atlanta
CONSTITUENT (µg/L)													
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		**1.9**	**5.2**	<1.0	<1.0
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	<200	<250	<250	<360	<250	<250	<250		<100	<100	<100	NA
Bromomethane	1500	<1.0	<5.0	<5.0	<7.2	<5.0	<10.0	<10.0		<5.0	<5.0	<5.0	<5.0
Chloroethane	not established	<1.0	<5.0	<5.0	<7.2	<5.0	<10.0	<10.0		<5.0	<5.0	<5.0	<5.0
Chloroform	470	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	**0.73**	**13**	**9.3**	<7.2	<5.0	<2.5	**7.7**	DRY	**7.4**	**49**	**6.2**	**7.6**
Ethylbenzene	2100	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	Not Sampled	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	NA	NA	NA	NA	NA	<5.0	<5.0		<1.0	<1.0	<1.0	**2.6**
Toluene	5980	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	**6.4**	**2.4**	<1.0
trans-1,2-Dichloroethene	10000	<0.50	<5.0	<5.0	<7.2	<5.0	<2.5	<2.5		<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	**7.8**		**2.6**	<1.0	<1.0	**3.8**
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<2.9	<2.0	<2.0	<2.0		<1.0	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA		NA	NA	<5.0	<5.0

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep G								Seep H						
Sample Location		Thermo King Eastern Parcel								Thermo King Eastern Parcel						
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/21/2010
Laboratory		Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)																
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	**2.2**	**1.7**	<1.0	<1.0	**1.6**	**1.5**	**2.4**	**1.2**	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	**6.0**
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
1,4-Dioxane	not established	<50	<50	<50	<150	<150	<150	<150	<150	<200	<250	<420	<250	<250	<250	<250
Bromomethane	1500	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<8.4	<5.0	<5.0	<10.0	<10.0
Chloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<10.0	<10.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	**11**	**9.7**	**6.4**	**3.2**	**11**	**9.6**	**20.2**	**11**	**6.9**	**12**	**30**	**13**	**27**	<2.5	**26**
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
p-Isopropyltoluene	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	<5.0	<5.0
Toluene	5980	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<8.4	<5.0	<5.0	<2.5	<2.5
Trichloroethene	30	**4.8**	**7.0**	<1.0	<1.0	<1.0	**2.4**	<1.0	<1.0	**24**	**15**	<8.4	<5.0	**7.1**	**5.1**	**38**
Vinyl Chloride	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.3	<2.0	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep H													
Sample Location		Thermo King Eastern Parcel													
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/3/2010	June 2011	1/17/2012	7/10/2012	8/7/2012	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015
Laboratory		Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)															
1,1,1-Trichloroethane	not established	<2.0		<1.0	<1.0	**15**	**20**	<20	**12**	**9.6**	**4**	**3.5**	**3.1**	**1.4**	**3.1**
1,1,2-Trichloroethane	16	<2.0		<1.0	<1.0	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
1,1-Dichloroethene	7100	**12**		**2.3**	**6.7**	**69**	**140**	**84**	**77**	**58**	**29.1**	**27.9**	**25.8**	**21.2**	**30.7**
1,1-Dichloroethane	not established	<2.0		<1.0	**2.0**	**1.1**	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
1,4-Dioxane	not established	<100		<100	<100	<100	NA	<1000	<130	<84	<150	<150	<300	<150	<150
Bromomethane	1500	<2.0		<5.0	<5.0	<5.0	<5.0	<20	<2.5	<1.7	<2.0	<2.0	<4.0	**3.4**	<2.0
Chloroethane	not established	<2.0		<5.0	<5.0	<5.0	<5.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
Chloroform	470	<2.0		<1.0	<1.0	**2.6**	**2.3**	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	**1.5**
cis-1,2-Dichloroethene	not established	**63**	DRY	**16**	**110**	**120**	**64**	**47**	**45**	**64**	**22.3**	**45.2**	**33.8**	**75.9**	**40.1**
Ethylbenzene	2100	<2.0	Not Sampled	<1.0	<1.0	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
p-Isopropyltoluene	not established	<2.0		<1.0	<1.0	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
Toluene	5980	<2.0		<1.0	**170**	**19**	**1.6**	<20	<2.5	**1.8**	<1.0	<1.0	<2.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<2.0		<1.0	**3.8**	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
Trichloroethene	30	**41**		**2.0**	<1.0	**800**	**550**	**610**	**530**	**490**	**180**	**185**	**359**	**157**	**275**
Vinyl Chloride	2.4	<2.0		<1.0	**31**	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA		NA	NA	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep I										
Sample Location		Thermo King Eastern Parcel										
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/30-31/2004	11/17/2004	2/27/2008	4/22/2010	6/7/2011	1/17/2012	7/10/2012	8/7/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	
CONSTITUENT (µg/L)												
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	<1.0	<1.0	**9.5**	
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	**9.3**	<1.0	**60**	
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	**1.9**	<1.0	<1.0	
1,4-Dioxane	not established	<200	<250	<250		<250	<250	<250	NA	<100	<100	
Bromomethane	1500	<1.0	<5.0	<5.0		<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	
Chloroethane	not established	<1.0	<5.0	<5.0		<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	
Chloroform	470	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	<1.0	<1.0	**2.2**	
cis-1,2-Dichloroethene	not established	<0.50	<5.0	<5.0	DRY	<5.0	<2.5	<2.5	**64**	<1.0	**68**	DRY
Ethylbenzene	2100	<1.0	<5.0	<5.0	not sampled	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	not sampled
p-Isopropyltoluene	not established	NA	NA	NA		NA	<5.0	<5.0	**1.4**	<1.0	<1.0	
Toluene	5980	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	**2.3**	<1.0	**17**	
trans-1,2-Dichloroethene	10000	<0.50	<5.0	<5.0		<5.0	<2.5	<2.5	<1.0	<1.0	<1.0	
Trichloroethene	30	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	**2.5**	<1.0	**380**	
Vinyl Chloride	2.4	<1.0	<2.0	<2.0		<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA		NA	NA	NA	<2.0	NA	NA	

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep I								
Sample Location		Thermo King Eastern Parcel								
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/27/2014	1/14/2015	7/9/2015	12/16/2015
Laboratory		AES-Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical		Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,1-Dichloroethene	7100	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,4-Dioxane	not established	NA	<50	<50	<50	<150		<150		<150
Bromomethane	1500	<5.0	<1.0	<1.0	<1.0	<2.0		<2.0		<2.0
Chloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
cis-1,2-Dichloroethene	not established	<1.0	<1.0	<1.0	**1.3**	<1.0	DRY	<1.0	DRY	**1.1**
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	not sampled	<1.0	not sampled	<1.0
p-Isopropyltoluene	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Toluene	5980	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Trichloroethene	30	<1.0	<1.0	**4.2**	**1.9**	<1.0		<1.0		<1.0
Vinyl Chloride	2.4	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	<5.0	NA	NA	NA	NA		NA		NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep J							Seep K					
Sample Location		Thermo King Eastern Parcel							Northeast CornerThermo King Eastern Parcel					
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	5/14/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/22/2010	3/24/2004	6/24/2004	8/31/2004	11/17/2004	2/26/2008	4/22/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)														
1,1,1-Trichloroethane	not established	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	16	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
1,1-Dichloroethane	not established	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
1,4-Dioxane	not established	<1000	<250	<620	<1700	<1200	<250	<250	<250	<250	<1000	<250	<250	<250
Bromomethane	1500	<25	<5.0	<12.0	<33	<25	<10.0	<10.0	<5.0	<5.0	<20	<5.0	<10.0	<10.0
Chloroethane	not established	<25	<5.0	<12.0	<33	<25	<10.0	<10.0	<5.0	<5.0	<20	<5.0	<10.0	<10.0
Chloroform	470	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	**910**	**84**	**66**	**190**	**110**	<2.5	<2.5	**10**	<5.0	**85**	<5.0	**12**	**5.3**
Ethylbenzene	2100	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
p-Isopropyltoluene	not established	NA	NA	NA	NA	NA	<5.0	<5.0	NA	NA	NA	NA	<5.0	<5.0
Toluene	5980	**280**	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10000	**13**	<5.0	<12.0	<33	<25	<2.5	<2.5	<5.0	<5.0	<20	<5.0	<2.5	<2.5
Trichloroethene	30	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	**13**	**5.8**
Vinyl Chloride	2.4	<25	**26**	<5.0	<13	**11**	<2.0	<2.0	<2.0	<2.0	<8	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep L										
Sample Location		Northeast CornerThermo King Eastern Parcel										
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	3/24/2004	6/24/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010	6/3/2010	June 2011	1/17/2012	7/10/2012	8/7/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES- Atlanta	AES- Atlanta	AES- Atlanta
CONSTITUENT (µg/L)												
1,1,1-Trichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
1,1,2-Trichloroethane	16	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
1,1-Dichloroethene	7100	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
1,1-Dichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
1,4-Dioxane	not established	<250	<250	<250	<250	<250		<50		<100		
Bromomethane	1500	<5.0	<5.0	<5.0	<5.0	<10.0		<1.0		<5.0		
Chloroethane	not established	<5.0	<5.0	<5.0	<5.0	<10.0		<1.0		<5.0		
Chloroform	470	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
cis-1,2-Dichloroethene	not established	**5.4**	<5.0	<5.0	<5.0	<2.5	DRY	<1.0	DRY	<1.0	DRY	DRY
Ethylbenzene	2100	<5.0	<5.0	<5.0	<5.0	<5.0	not sampled	<1.0	not sampled	<1.0	not sampled	not sampled
p-Isopropyltoluene	not established	NA	NA	NA	NA	<5.0		<1.0		<1.0		
Toluene	5980	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
trans-1,2-Dichloroethene	10000	<5.0	<5.0	<5.0	<5.0	<2.5		<1.0		<1.0		
Trichloroethene	30	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
Vinyl Chloride	2.4	<2.0	<2.0	<2.0	<2.0	<2.0		<1.0		<1.0		
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA		NA		NA		

TABLE 2.3-4: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep L								
Sample Location		Northeast CornerThermo King Eastern Parcel								
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/16/2015
Laboratory		AES- Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
1,1-Dichloroethene	7100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
1,4-Dioxane	not established	NA	<50	<50	<50	<150	<150	<150		<150
Bromomethane	1500	<5.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0		<2.0
Chloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
cis-1,2-Dichloroethene	not established	**2.0**	**5.9**	**4.6**	<1.0	<1.0	<1.0	**2.4**	DRY	<1.0
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	not sampled	<1.0
p-Isopropyltoluene	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
Toluene	5980	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
Trichloroethene	30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.5**		<1.0
Vinyl Chloride	2.4	<1.0	**1.3**	**2.1**	<1.0	<1.0	<1.0	<1.0		<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	<5.0	NA	NA	<1.0	NA	NA	NA		NA

Notes:

µg/L	micrograms per liter
Hwy	Highway
NA	Sample not analyzed for this constituent
E	Estimated; result exceeds calibration range
(a)	Georgia 391-3-6-.03 Water Use Classifications and Water Quality Standards. (ISWQC) 10/22/2013
	Exceeds Georgia ISWQC
BOLD	**Detected Concentration**

Prepared by/Date: MHA 7/30/2015 DP 1/7/2016
Checked by/Date: RNQ 8/13/2015 RNQ 1/14/2016

TABLE 2.3-5: Risk Reduction Standards Types 1 through 4 for Soil

			Risk Reduction Standards (RRS) (mg/kg)															
	Maximum Detected Concentrations (mg/kg)		Type 1			Type 2			Type 3 Surface			Type 3 Subsurface			Type 4		
HSRA-Regulated Substance	**Surface (a)**	**Subsurface (b)**	**RRS**	**Reference**	**Status**	**RRS**	**Reference**	**Status**	**RRS**	**Reference**	**Status**	**RRS**	**Reference**	**Status**	**RRS**	**Reference**	**Status**
Volatile Organic Compounds - SW8260B																	
1,1,1-Trichloroethane	0.18	2.3	20	GW x 100	C	19	Leaching	***	20	GW x 100	***	20	GW x 100	***	170	G	***
1,1,2-Trichloroethane	0.026	0.015	0.5	GW x 100	C	0.032	Leaching	***	0.5	GW x 100	***	0.5	GW x 100	***	0.032	G	***
1,1-Dichloroethene	0.023	0.051	0.7	GW x 100	C	0.72	Leaching	***	0.7	GW x 100	***	0.7	GW x 100	***	6.8	G	***
1,4-Dioxane	3600	2800	0.5	GW x 100	**E**	0.035	Leaching	**E**	0.5	GW x 100	**E**	0.5	GW x 100	**E**	0.12	G	**E**
cis-1,2-Dichloroethene	0.6	0.38	7	GW x 100	C	0.41	Leaching	***	7	GW x 100	***	7	GW x 100	***	1.2	G	***
Ethylbenzene	ND	0.36	70	GW x 100	C	16	Leaching	***	70	GW x 100	***	70	GW x 100	***	16	G	***
Isopropylbenzene	0.016	ND	22	Appendix I	C	6.9	Leaching	***	22	Appendix I	***	22	Appendix I	***	62	G	***
Napthalene	ND	0.31	100	Appendix I	C	1.3	Leaching	***	100	Appendix I	***	100	Appendix I	***	1.3	G	***
m+p Xylene	ND	1.4	1000	GW x 100	C	200	Leaching	***	1000	GW x 100	***	1000	GW x 100	***	200	G	***
Tetrachloroethene	0.013	0.011	0.5	GW x 100	C	0.045	Leaching	***	0.5	GW x 100	***	0.5	GW x 100	***	0.045	G	***
Trichloroethene	4.1	2.6	0.5	GW x 100	**E**	1.8	Leaching (c)	**E**	0.5	GW x 100	**E**	0.5	GW x 100	**E**	1.8	Leaching (c)	**E**
Chloroform	ND	0.011	3.8	GW x 100	C	0.44	Leaching	***	4.9	Risk-Based	***	8	GW x 100	***	0.44	G	***

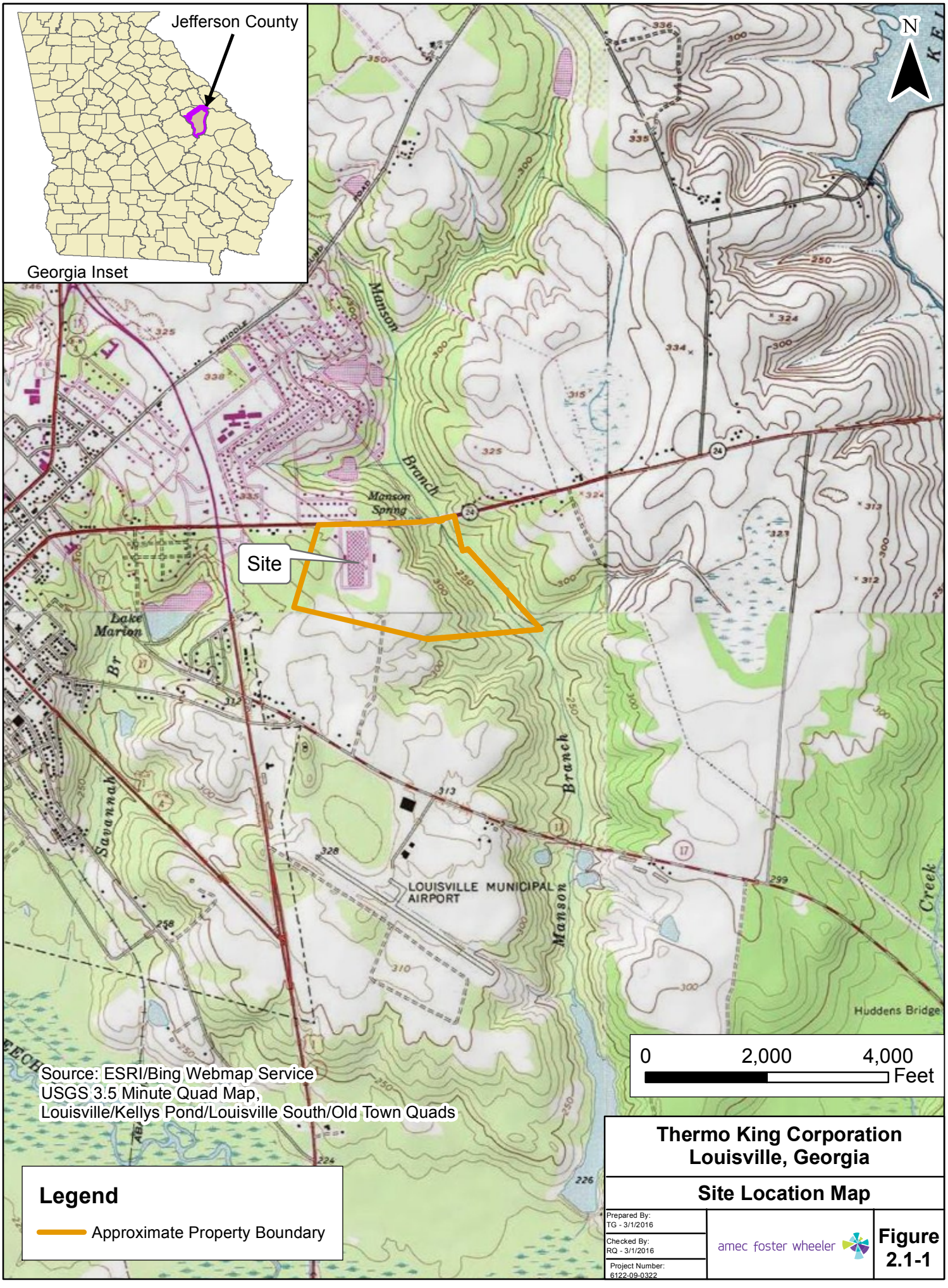
Notes:
mg/kg = milligram per kilogram
Reference = Reference for the RRS
ND = Substance not detected
(a) Surface soil is defined under HSRA as 0 to 2 feet below ground surface
(b) Subsurface soil is defined under HSRA as any point above the upper most groundwater zone; used here to mean other than surface soil.
*** Substance concentrations complies with a lower RRS
C = Substance concentration meets the respective RRS
E = Substance concentration exceeds the respective RRS
GW x 100 = HSRA ground water criteria standard times a factor of 100
Appendix I = HSRA Rules Appendix I: Regulated Substances and Soil Concentrations that Trigger Notification
G = Lower value of direct soil contact and non-residential soil-to-ground water leaching values
Leaching = RRS based on soil-to-groundwater transport equation from the Soil Screening Guidance background document (USEPA, 1996).
Risk-Based = RRS based on the risk-based soil concentration.
(c) 1.8 mg/kg is the EPD-approved leaching criteria. Soil concentrations exceeding the direct contact value of 1.3 mg/kg are all located beneath the existing building floor slab, so direct contact is not possible.
Bold Substance concentrations exceeds Types 1, 2, 3 and 4 RRS

PREPARED BY: RPR 12/03/10
REVISED BY: LWC 8/25/11
CHECKED BY: LMS 8/25/11
UPDATED BY: LMS 8/3/12

TABLE 6.0-1:
Estimated Cost for Post-VRP Monitoring and Inspections

	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
	ANNUAL COSTS					
1.0	**Annual Seep and Surface Water Sampling & Analysis and Engineering Controls Inspection**					
	Labor	1	event	$3,840	$3,840	Assumes 1 day/event, 3-man crew
	Laboratory Analytical	15	ea	$150	$2,250	VOCs
	Rental Equipment	1	event	$460	$460	
	Mobilization/Demobilization/Travel Expenses/Supplies	1	ea	$485	$485	
2.0	**Annual As-needed Maintenance & Repairs of Engineering Controls**					
	Vegetation Control	1	event	$3,900	$3,900	Assumes 1 event per year
	Seiment Cleanout/Erosion Control/Access Road Repair	1	event	$5,000	$5,000	allowance
3.0	**Annual Reporting of Monitoring and Inspections**					
		1	ea	$8,500	$8,500	Assumes 1 report per year
	SUBTOTAL - Annual Costs				**$24,435**	
	5 Years of Annual Post-VRP O&M Costs				**$122,175**	

FIGURES



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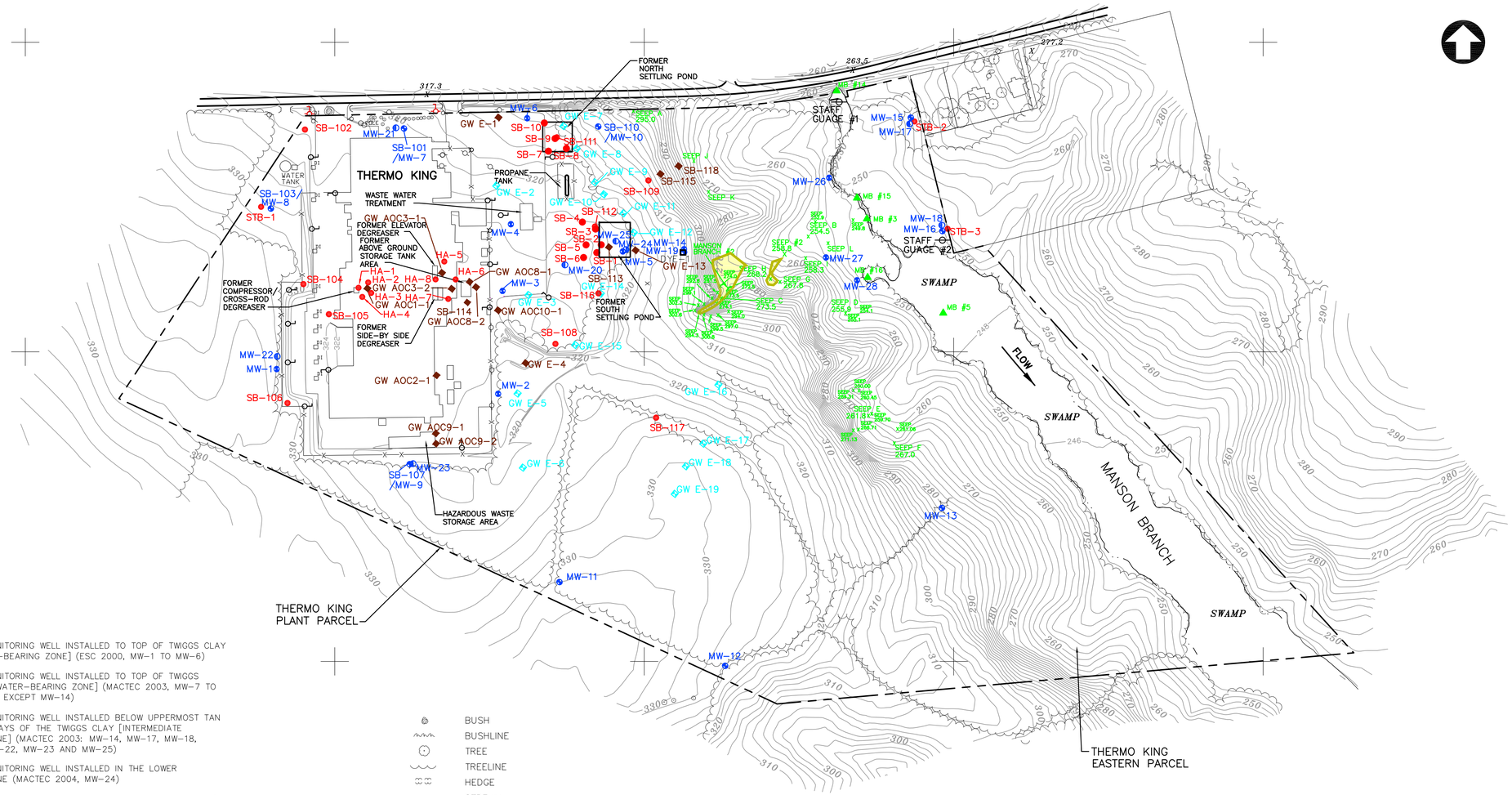
Thermo King Corporation
Louisville, Georgia

Site Location Map

Prepared By: TG - 3/1/2016	amec foster wheeler	**Figure 2.1-1**
Checked By: RQ - 3/1/2016		
Project Number: 6122-09-0322		



LEGEND

- MW–1 — GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
- MW–7 — GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
- MW–14 — GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22, MW–23 AND MW–25)
- MW–24 — GROUND–WATER MONITORING WELL INSTALLED IN THE LOWER WATER–BEARING ZONE (MACTEC 2004, MW–24)
- GW E–2 — DIRECT–PUSH TECHNOLOGY BORING FOR GROUND–WATER SAMPLING (LAW 2000: GW E–1 TO GW E–19, UPPERMOST WATER–BEARING ZONE)
- GW E–1 — SOIL BORING FOR SOIL AND GROUND–WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E–1, GW E–4, GW E–13, GW AOC1–1, GW AOC2–1, GW AOC3–1, GW AOC3–2, GW AOC8–1, GW AOC8–2, GW AOC9–1, GW AOC9–2, GW AOC10–1, SB–113, SB–114, SB–115, AND SB–118, UPPERMOST WATER–BEARING ZONE)
- SB–7 — SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB–1 TO SB–10, SB–101 TO SB–112, SB–116 AND SB–117 AND HA–1 TO HA–8) (SOIL BORINGS FOR SOIL SAMPLING SB–101, SB–103, SB–107, SB–110 WERE COMPLETED AS MONITORING WELLS MW–7, MW–8, MW–9, AND MW–10 RESPECTIVELY) BORINGS STB–1, STB–2 AND STB–3 ARE STRATIGRAPHIC BORINGS
- SEEP A 299.0 — WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
- SEEP 252.9 — WATER SEEP WITH ELEVATION
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
- STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
- DYE INJECTION WELL

- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- STREAM
- FENCE
- 300 — TOPOGRAPHIC CONTOUR
- DI — DROP INLET
- LIGHT POLE
- PROPERTY BOUNDARY
- EXTENT OF RIP RAP BLANKET

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. IN SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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IN CHARGE	D. ALCOTT
DATE	3/2/2016

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amec foster wheeler

SITE SAMPLING LOCATIONS MAP

FIGURE 2.1–2

SCALE	AS SHOWN
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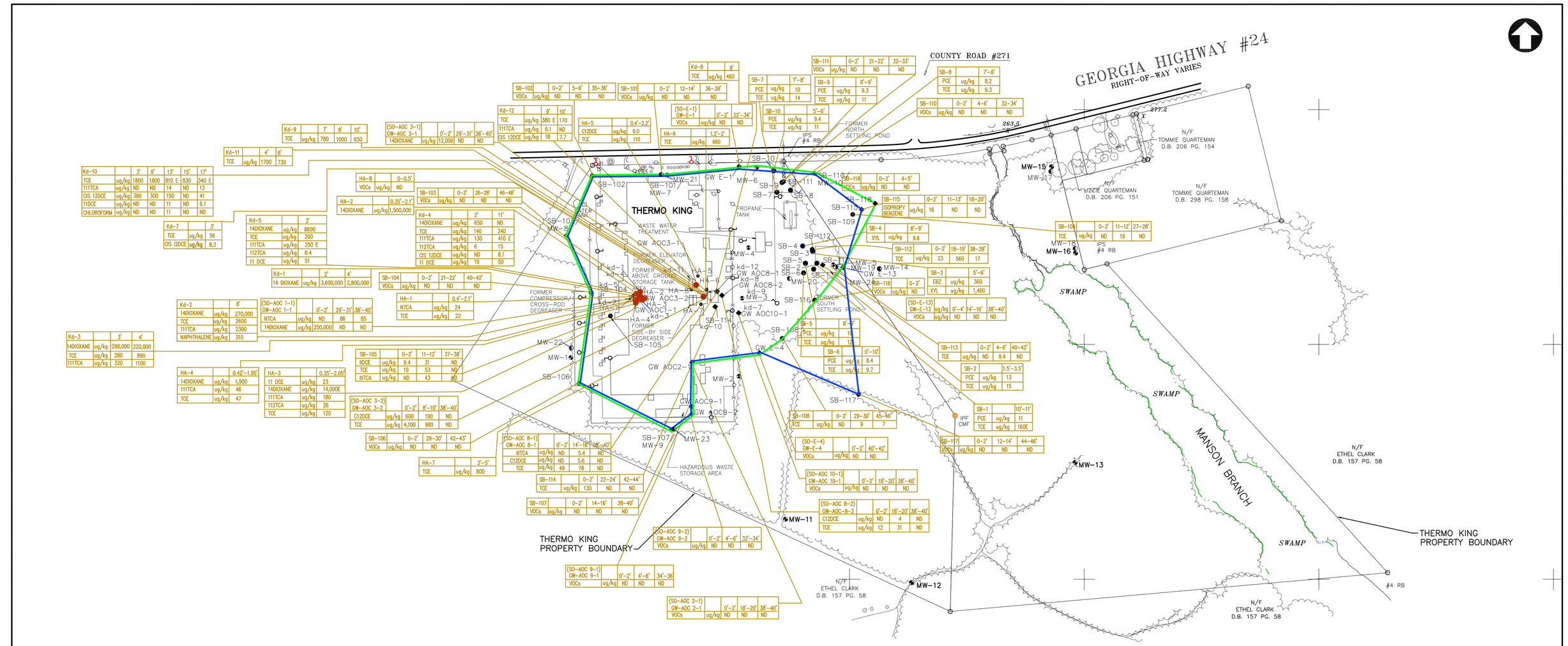

LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
MW–14	GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22 AND MW–23)
MW–24	GROUND–WATER MONITORING WELL INSTALLED IN THE LOWER WATER–BEARING ZONE (MACTEC 2004, MW–24)
GW E–1	SOIL BORING FOR SOIL AND GROUND–WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E–1, GW E–4, GW E–13, GW AOC1–1, GW AOC2–1, GW AOC3–1, GW AOC3–2, GW AOC8–1, GW AOC8–2, GW AOC9–1, GW AOC9–2, GW AOC10–1, SB–113, SB–114, SB–115, AND SB–118, [UPPERMOST WATER–BEARING ZONE]
SB–7	SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003 AND 2005 SB–1 TO SB–10, SB–101 TO SB–112, SB–116 AND SB–117 AND HA–1 TO HA–8, Kd–1 TO Kd–12) (Soil borings for soil sampling SB–101, SB–103, SB–107, and SB–110 were completed as monitoring wells MW–7, MW–8, MW–9, and MW–10)

VOCs	VOLATILE ORGANIC COMPOUNDS
ug/kg	MICROGRAMS PER KILOGRAMS
111TCA	1,1,1–TRICHLOROETHANE
TCE	TRICHLOROETHENE
11DCE	1,1–DICHLOROETHENE
CI2DCE	CIS–1,2–DICHLOROETHENE
PCE	TETRACHLOROETHENE
XYL	XYLENES
EBZ	ETHYLBENZENE
ND	NOT DETECTED
NS	NOT SAMPLED
112TCA	1,1,2–TRICHLOROETHANE
0'–2'	SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
110	CONSTITUENT CONCENTRATION
E	ESTIMATED CONCENTRATION; RESULT EXCEEDS THE CALIBRATION RANGE

- SOIL LOCATIONS THAT EXCEED TYPES 1–4 RRS
- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- STREAM
- FENCE
- DROP INLET
- LIGHT POLE
- PROPERTY BOUNDARY
- EXTENT OF VOCs IN SURFACE SOILS (0–2 FEET)
- EXTENT OF VOCs IN SUBSURFACE SOILS (>2 FEET)

VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12–8–108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON–DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING INC., LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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KENNESAW, GEORGIA 30144 (770) 421–3400

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DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN SOIL

FIGURE 2.3–1

SCALE: AS SHOWN
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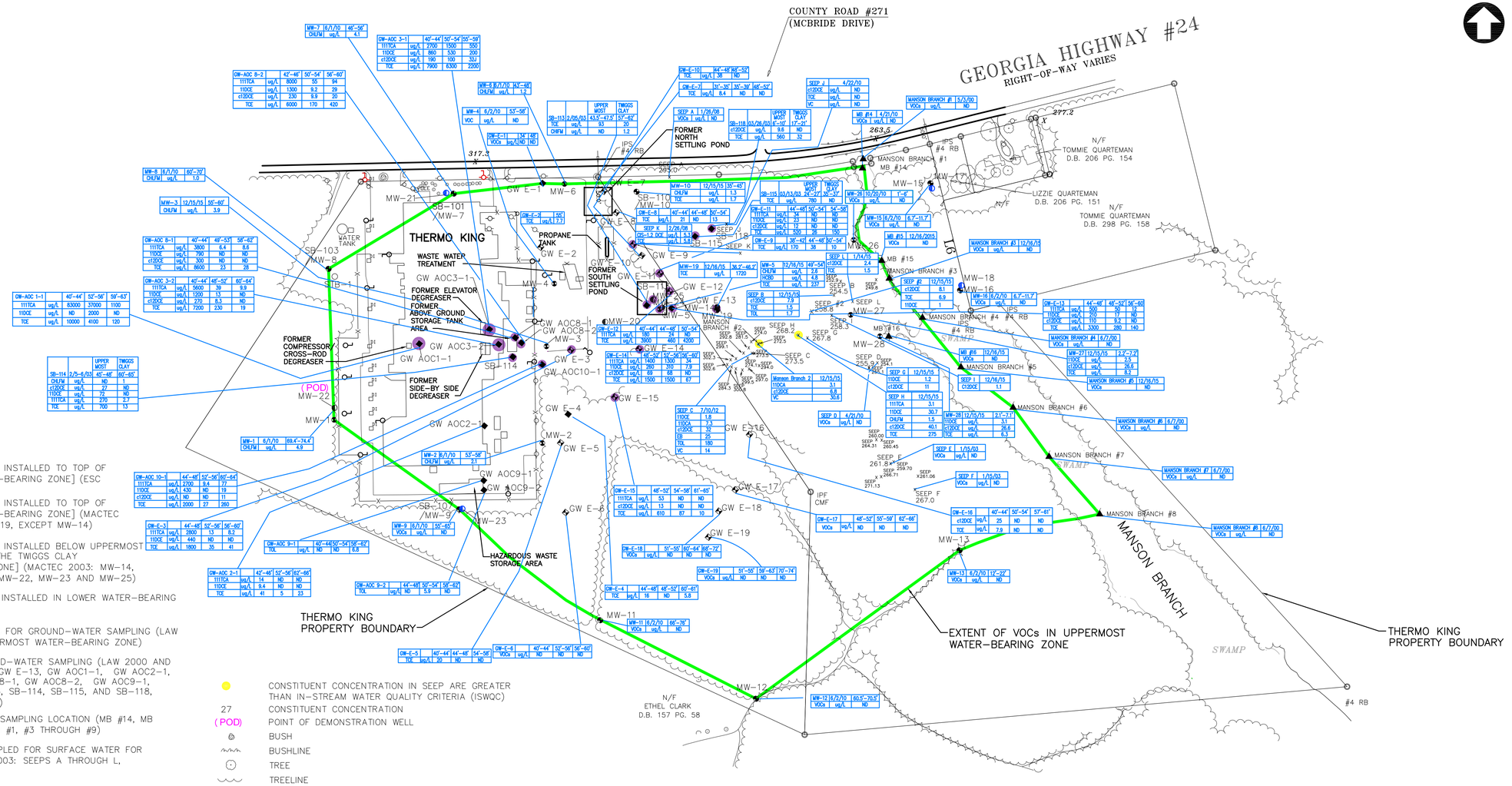

LEGEND

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MW-24	GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004: MW-24)
GW-E-2	DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
GW-E-1	SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16, MANSON BRANCH #1, #3 THROUGH #9)
X SEEP A 299.0	WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: SEEPS A THROUGH L, MANSON BRANCH #2, SEEP #2)
ND	NOT DETECTED
VOC	VOLATILE ORGANIC COMPOUNDS
TCE	TRICHLOROETHENE
111TCA	I,I,I-TRICHLOROETHANE
IIDCE	I,I-DICHLOROETHENE
c12DCE	CIS-12-DICHLOROETHENE
t12DCE	TRANS-1,2-DICHLOROETHENE
TOL	TOLUENE
CHLFM	CHLOROFORM
VC	VINYL CHLORIDE
HCBD	HEXACHLOROBUTADIENE
EB	ETHYLBENZENE
EtBr	BROMOMETHANE
TOL	TOLUENE
ug/L	MICROGRAMS PER LITER
40'-44'	SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
	CONSTITUENT CONCENTRATIONS IN GROUNDWATER DO NOT MEET TYPES 1/3 OR 2 OR 4 RISK REDUCTION STANDARDS (MOST RECENT GROUND-WATER ANALYTICAL RESULTS PER LOCATION USED)
	CONSTITUENT CONCENTRATION IN SEEP ARE GREATER THAN IN-STREAM WATER QUALITY CRITERIA (ISWQC)
27	CONSTITUENT CONCENTRATION
(POD)	POINT OF DEMONSTRATION WELL
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	WATER
X	FENCE
DI	DROP INLET
X SEEP 299.5	WATER SEEP WITH ELEVATION
	PROPERTY BOUNDARY
	EXTENT OF VOCs IN UPPERMOST WATER-BEARING ZONE

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTE: MOST CURRENT ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000, 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

SCALE IN FEET
0 200 400

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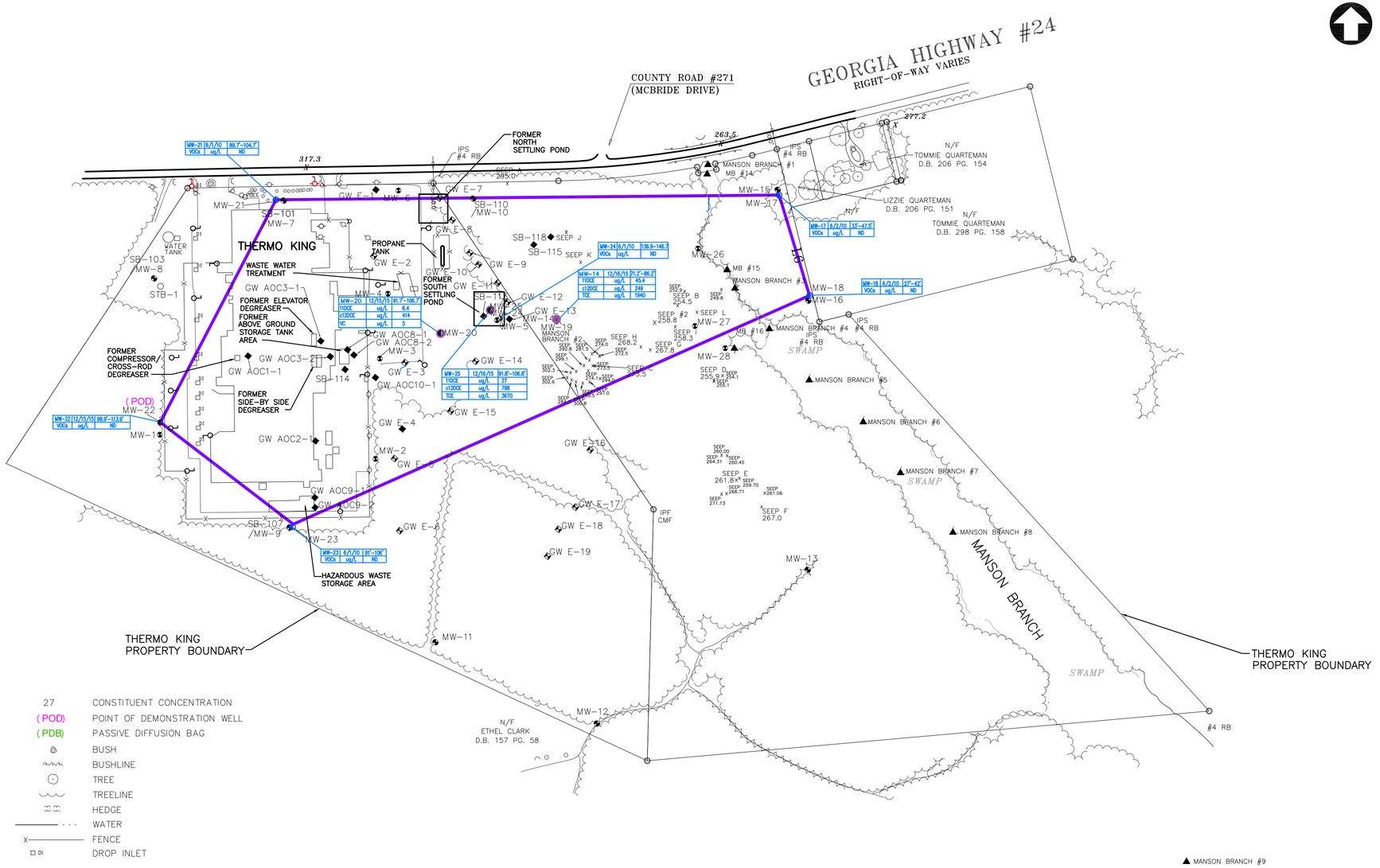
DESIGNED N. MCMILLAN DRAWN T. GLADSTONE CHECKED R. QUINN IN CHARGE D. ALCOTT DATE 3/2/2016		THERMO KING CORPORATION LOUISVILLE, GEORGIA AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC. 1075 BIG SHANTY ROAD, NW, SUITE 100 KENNESAW, GEORGIA 30144 (770) 421-3400 amec foster wheeler	DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN GROUND WATER IN THE UPPERMOST WATER-BEARING ZONE FIGURE 2.3-2	SCALE AS SHOWN CONTRACT 6122-09-0322 DWG. NO. / REV / PAGE NO.

J:\Thermo King\JANUARY 2016\DISTR AND EXTEND_FIG 4.dwg - Layout1 03/09/2016 10:20am Tonya.gladstone



LEGEND

- MW-1 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
- MW-7 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
- MW-14 — GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23 AND MW-25)
- MW-24 — GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004: MW-24)
- GW-E-2 — DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
- GW-E-1 — SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16, MANSON BRANCH #1, #3 THROUGH #9)
- X SEEP A 299.0 — WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: SEEPS A THROUGH L, MANSON BRANCH #2, SEEP #2)
- ND — NOT DETECTED
- VOC — VOLATILE ORGANIC COMPOUNDS
- TCE — TRICHLOROETHENE
- 1DCE — 1,1-DICHLOROETHENE
- c12DCE — CIS-12-DICHLOROETHENE
- VC — VINYL CHLORIDE
- ug/L — MICROGRAMS PER LITER
- 40'-44' — SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
- CONSTITUENT CONCENTRATIONS IN GROUND WATER DO NOT MEET TYPES 1/3 OR 2 OR 4 RISK REDUCTION STANDARDS (MOST RECENT GROUND-WATER ANALYTICAL RESULTS PER LOCATION USED)

- 27 — CONSTITUENT CONCENTRATION
- (POD) — POINT OF DEMONSTRATION WELL
- (PDB) — PASSIVE DIFFUSION BAG
- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- WATER
- FENCE
- DI — DROP INLET
- X SEEP 299.5 — WATER SEEP WITH ELEVATION
- PROPERTY BOUNDARY
- EXTENT OF VOCs IN INTERMEDIATE WATER-BEARING ZONE

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTE: MOST CURRENT ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000, 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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IN CHARGE	D. ALCOTT
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DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN GROUND WATER IN THE INTERMEDIATE WATER-BEARING ZONE

FIGURE 2.3-3

SCALE	AS SHOWN
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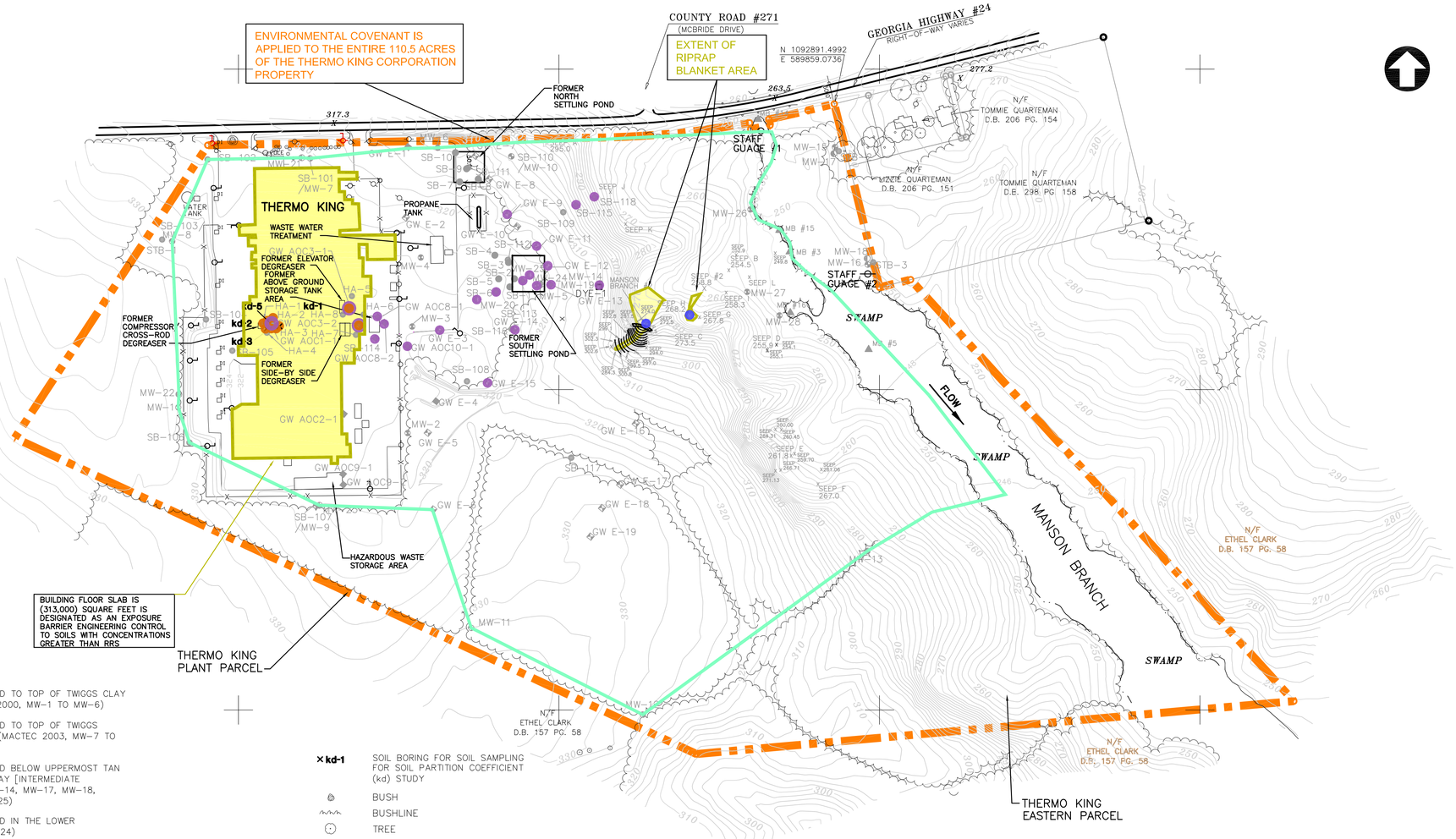

LEGEND

- MW-1 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
- MW-7 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
- MW-14 — GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23 AND MW-25)
- MW-24 — GROUND-WATER MONITORING WELL INSTALLED IN THE LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
- GW E-2 — DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
- GW E-1 — SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
- SB-7 — SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB-1 TO SB-10, SB-101 TO SB-112, SB-116 AND SB-117 AND HA-1 TO HA-8) (SOIL BORINGS FOR SOIL SAMPLING SB-101, SB-103, SB-107, SB-110 WERE COMPLETED AS MONITORING WELLS MW-7, MW-8, MW-9, AND MW-10 RESPECTIVELY) BORINGS STB-1, STB-2 AND STB-3 ARE STRATIGRAPHIC BORINGS
- SEEP A 299.0 — WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
- SEEP 252.9 — WATER SEEP WITH ELEVATION
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
- STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
- DYE INJECTION WELL
- kd-1 — SOIL BORING FOR SOIL SAMPLING FOR SOIL PARTITION COEFFICIENT (kd) STUDY
- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- STREAM
- FENCE
- 300 — TOPOGRAPHIC CONTOUR
- DI — DROP INLET
- LIGHT POLE
- PROPERTY BOUNDARY

- CONSTITUENT CONCENTRATIONS IN SOIL DO NOT MEET TYPES 1 OR 2 OR 3 OR 4 RISK REDUCTION STANDARDS (RRS).
- CONSTITUENT CONCENTRATIONS IN GROUNDWATER DO NOT MEET TYPES 1/3 OR 2 OR 4 RISK REDUCTION STANDARDS (MOST RECENT GROUNDWATER ANALYTICAL RESULTS PER LOCATION USED)
- CONSTITUENT CONCENTRATIONS IN SEEP WATER GREATER THAN IN-STREAM WATER QUALITY CRITERIA ISWQC (MOST RECENT ANALYTICAL RESULTS PER LOCATION USED).
- EXTENT OF HSRA DEFINED SITE
- THERMO KING PROPERTY BOUNDARY
- RIP-RAP BLANKET IS AN ENGINEERING CONTROL (APPROXIMATELY 11,100 SQUARE FEET) TO PRECLUDE THE SURFACE EXPRESSION OF SEEP WATER WITH CONCENTRATIONS GREATER THAN IN-STREAM WATER QUALITY CRITERIA (ISWQC)

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SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. IN SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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DATE	3/2/2016

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RISK REDUCTION STANDARDS COMPLIANCE MAP WITH LOCATIONS OF ENGINEERING AND INSTITUTIONAL CONTROLS

FIGURE 2.3-4

SCALE	AS SHOWN
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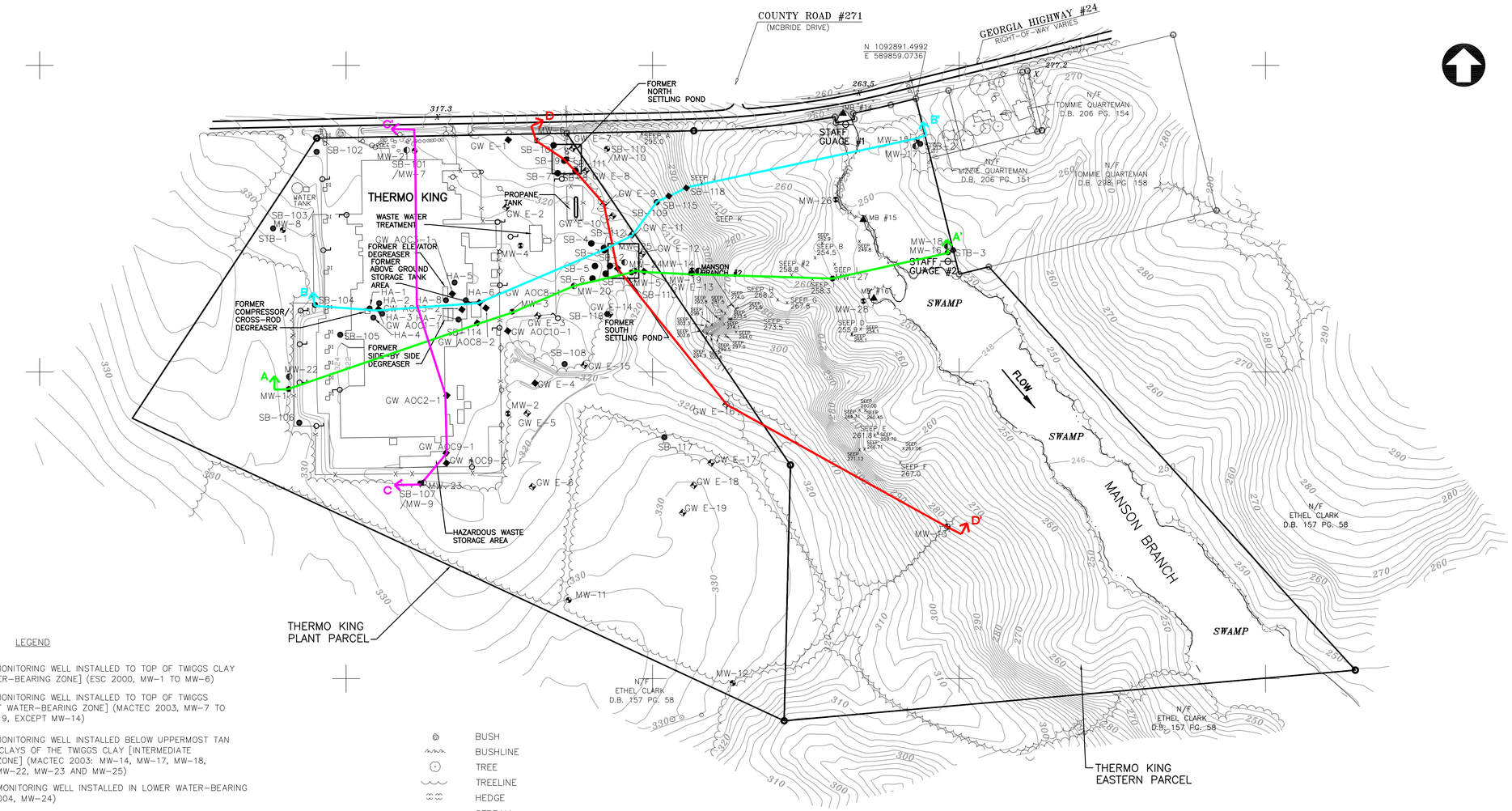

LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
MW–14	GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22, MW–23 AND MW–25)
MW–24	GROUND–WATER MONITORING WELL INSTALLED IN LOWER WATER–BEARING ZONE (MACTEC 2004, MW–24)
GW E–2	DIRECT–PUSH TECHNOLOGY BORING FOR GROUND–WATER SAMPLING (LAW 2000: GW E–1 TO GW E–19, UPPERMOST WATER–BEARING ZONE)
GW E–1	SOIL BORING FOR SOIL AND GROUND–WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E–1, GW E–4, GW E–13, GW AOC1–1, GW AOC2–1, GW AOC3–1, GW AOC3–2, GW AOC8–1, GW AOC8–2, GW AOC9–1, GW AOC9–2, GW AOC10–1, SB–113, SB–114, SB–115, AND SB–118, UPPERMOST WATER–BEARING ZONE)
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SEEP A 299.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
SEEP 252.9	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
	STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
X	FENCE
300	TOPOGRAPHIC CONTOUR
DI	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY
A A'	HYDROGEOLOGIC PROFILE LOCATION

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC: OCTOBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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HYDROGEOLOGIC PROFILE LOCATION MAP

FIGURE 3.0–1

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A
WEST

A'
EAST

ELEVATION IN FEET (NAVD)

340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160

FORMER ABOVEGROUND STORAGE TANK
FORMER SOUTH SETTLING POND (OFFSET)
MANUFACTURING BUILDING

MW-1 (POD) MW-22
(OFFSET) STB-1
SB-114 MW-3 MW-20 MW-25 SB-113 MW-5 MW-24 MW-19 MW-14

SB-114 (0-2) TCE 130 ug/kg
SB-113 (0-2) VOCs ND
SB-113 (4-6) TCE 9.4 ug/kg
SB-114 (22-24) VOCs ND
SB-113 (40-42) VOCs ND
SB-114 (42-44) VOCs ND
SB-114 (41.5-43.5) TCE 93 ug/L
SB-114 (45-48) 111TCA 270 ug/L; 11DCE 72 ug/L; C12 DCE 27 ug/L; TCE 700 ug/L
MW-5 (49.5-54) CHLFM 2.6 ug/L; C 12 DCE 1.9J ug/L; HCBD 4.8 ug/L; TCE 237 ug/L
SEEP C (7/10/12) 11 DCE 1.8 ug/L; 11 DCA 7.3 ug/L; C 12 DCE 32 ug/L; EB 25 ug/L; TOL 180 ug/L; VC 14
MASON BRANCH #2 (12/15/15) 11 DCA 3.1 ug/L; C 12 DCE 6.8 ug/L; VC 30.6 ug/L
SEEP H (12/15/15) 111 TCA 3.1 ug/L; 11 DCE 30.7 ug/L; CHLFM 1.5 ug/L; C 12 DCE 40.1 ug/L; TCE 275 ug/L
MW-5 (60.4-74.4) CHLFM 2.0
MW-5 (55-69) CHLFM 3.9 ug/L
MW-10 (56.2-66.2) VCC 1720 ug/L
SB-113 (57-62) CHLFM 1.2 ug/L; TCE 20 ug/L
SB-114 (60-65) 111TCA 2.7 ug/L; TCE 13 ug/L; CHLFM 1.0 ug/L
SEEP B (12/16/15) C 12 DCE 7.9 ug/L; TCE 1.5 ug/L; TOL 1.7 ug/L
SEEP #2 (12/16/15) C 12 DCE 8.1 ug/L; TCE 6.9 ug/L; 11DCE 1 ug/L
MW-27 (2.2-7.2) C 12 DCE 26.6 ug/L; TCE 8.2 ug/L; 11 DCE 2.5 ug/L
MW-16 (6.7-11.7) VOCs ND
MW-14 (71.2-86.2) C 12 DCE 249 ug/L; TCE 1940 ug/L; 11 DCE 45.4 ug/L
MW-20 (91.7-106.7) 11 DCE 6.4 ug/L; C 12 DCE 43.4 ug/L; VC 5.0 ug/L
MW-22 (88.9-113.9) VOCs ND
MW-25 (91.9-106.8) 11 DCE 27 ug/L; C 12 DCE 798 ug/L; TCE 3670 ug/L
MW-18 (27-42) VOCs ND
MW-24 (136.9-146.7) VOCs ND

REDDISH-BROWN TO ORANGE SILTY CLAYEY FINE TO MEDIUM SAND TO SANDY CLAY
BROWNISH-RED AND ORANGE, SILTY, FINE TO MEDIUM SAND
ORANGE TO WHITE TO YELLOWISH-BROWN MEDIUM SAND
CLAY STONE
ORANGE TO WHITE TO YELLOWISH-BROWN MEDIUM SAND
BROWN CLAY
YELLOWISH TO GRAYISH BROWN CLAY
YELLOW SAND
WHITE TO GRAY TO BROWN FINE TO COARSE SAND
UPPERMOST WATER BEARING ZONE
B.T. 63.5'
B.T. 58'
B.T47.0'
SEEP C (OFFSET)
MANSON BRANCH #2 (OFFSET)
SEEP H (OFFSET)
SEEP 2
SEEP B
MW-27
MANSON BRANCH
MW-16
MW-18
THERMO KING PROPERTY LINE
B.T. 7.3'
DARK BROWNISH-GRAY SILTY FINE SAND (ALLUVIAL DEPOSITS)
GRAY-BROWN TO BLUE-GREEN SILTY SANDY CLAY TO CLAYEY FINE SAND TO BLUE-GRAY SAND
BROWN POORLY GRADED FINE SAND (ALLUVIAL DEPOSITS)
TAN AND WHITE AND LIGHT GRAY CLAY
PERCHING AND CONFINING LAYER
B.T. 78'
BLUE-GRAY CLAY TO SANDY SILTY CLAY
B.T. 78.5'
B.T. 78.5'
B.T. 12.0' REFUSAL
BLUE-GRAY TO GREENISH- GRAY SANDY SILTY CLAY
BLUE-GRAY SILTY CLAYEY FINE TO MEDIUM SAND
INTERMEDIATE WATER BEARING ZONE
BLUE-GRAY TO GREENISH-GRAY SILTY TO CLAYEY FINE TO VERY COARSE SAND WITH SOME SHELL FRAGMENTS
BLUE-GRAY SANDY SILTY CLAY
BLUE-GRAY CLAY
DARK GRAY SILT WITH FOSSILS
DARK GRAY CLAYEY SILT WITH SAND SEAMS
B.T. 107.0'
B.T. 107.0'
B.T. 88.0
GREENISH GRAY VERY FINE SANDY SILT
GREENISH-GRAY CLAYEY SILTY FINE TO MEDIUM SAND
B.T. 116'
BLUE-GRAY SANDY SILTY CLAY
DARK GRAY SILTY CLAY WITH FOSSILS
DARK GRAY CLAYEY SILT WITH FOSSILS
GREENISH-GRAY FINE SANDY SILTY CLAY WITH SOME FOSSILS
B.T. 48.0' REFUSAL
GREENISH-GRAY SANDY CLAYEY SILT TO SILTY CLAY WITH SOME FOSSILS
GREEN TO DARK GRAY SILT WITH CLAY WITH FOSSILS AND SOME SAND
DARK GRAY MICRITIC LIMESTONE
TWIGGS CLAY FORMATION MEMBER
DARK GREENISH-GRAY SILTY CLAY WITH SAND AND FOSSILS
GRAY LIMESTONE
DARK GREENISH-GRAY CLAYEY SILTY FINE TO COARSE SAND
LOWER WATER-BEARING ZONE
GRAY LIMESTONE
CLAYEY SANDY SILT WITH FOSSILS AND THIN LIMESTONE LENSES
B.T. 147.0'
GREENISH-GRAY FINE SANDY SILT
SANDY CLAYEY SILT WITH FOSSILS
GRAY CLAYEY SILT WITH LIMESTONE FRAGMENTS
GREENISH-GRAY SILTY CLAY
DARK GRAY SAND WITH FOSSILS
B.T. 177'

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON DECEMBER 14, 2015.
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- (10) INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- 5 INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- (POD) POINT OF DEMONSTRATION WELL
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND NOT DETECTED
- TCE TRICHLOROETHENE
- 111 TCA 111-TRICHLOROETHANE
- 11 DCE 11-DICHLOROETHENE
- C 12 DCE CIS-12-DICHLOROETHENE
- CHLFM CHLOROFORM
- VC VINYL CHLORIDE
- EB ETHYLBENZENE
- TOL TOLUENE
- EtBr BROMOMETHANE
- HCBD HEXACHLOROBUTADIENE
- TCE 130 ug/kg (0-2) CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN IN FEET
- ug/kg MICROGRAMS PER KILOGRAM
- ug/L MICROGRAMS PER LITER
- NAVD NORTH AMERICAN VERTICAL DATUM 1988
- DIRECTION OF GROUNDWATER FLOW
- UPPERMOST WATER-BEARING ZONE
- INTERMEDIATE WATER-BEARING ZONE
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

LEGEND

1. THE ISOCONCENTRATION CONTOURS OF TOTAL VOLATILE ORGANIC COMPOUNDS (VOCS) INDICATE THE VERTICAL EXTENT OF VOCS IN SOIL ABOVE GROUNDWATER
2. VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.
3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

10 SCALE IN FEET 0 200

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DRAWN	T. GLADSTONE
CHECKED	R. QUINN
IN CHARGE	D. ALCOTT
DATE	3/1/2016

THERMO KING CORPORATION
LOUISVILLE, GEORGIA

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

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HYDROGEOLOGIC PROFILE A–A'

FIGURE: 3.0-2

SCALE	AS SHOWN
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AA
WEST

AA'
EAST

ELEVATION IN FEET (NAVD)

340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160

SEEP C	7/10/12
11DCE	1.8
EB	25
TOL	180
VC	14
11DCA	7.3
C12DCE	32

MANSON BRANCH #2	12/15/15
111DCA	3.1
C12DCE	6.8
VC	30.6

SEEP H	12/15/15
111TCA	3.1
11DCE	30.7
CHLFM	1.5
C12DCE	40.1
TCE	275

SEEP #2	12/15/15
C12DCE	8.1
TCE	6.9
11DCE	1

SEEP B	12/15/15
C12DCE	7.9
TCE	1.5
TOL	1.7

MW-27	12/15/15
11DCE	2.5
C12DCE	26.6
TCE	8.2

MANSON BRANCH	12/16/15
VOC	ND

MW-18	6/2/10
VOC	ND

LIMIT OF RIP RAP BLANKET

(OFFSET) SEEP C

(OFFSET) MANSON BRANCH #2

(OFFSET) SEEP H

SEEP 2

SEEP B

MW-27

MANSON BRANCH

MW-18

UPPERMOST WATER-BEARING ZONE

PERCHING AND CONFINING LAYER

COLLUVIAL/ALLUVIAL DEPOSITS

COLLUVIAL/ALLUVIAL DEPOSITS

INTERMEDIATE WATER BEARING ZONE

B.T. 7.5'

B.T. 48.0' REFUSAL

?

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON DECEMBER 14, 2015.
- POTENTIOMETRIC SURFACE COLLUVIAL/ALLUVIAL DEPOSITS ON DECEMBER 14, 2015.
- GROUND SURFACE
- CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988
- DIRECTION OF GROUNDWATER FLOW
- UPPERMOST WATER-BEARING ZONE
- INTERMEDIATE WATER-BEARING ZONE
- GROUNDWATER FLOW PATH FROM UPPERMOST WATER-BEARING ZONE TO MANSON BRANCH

10 SCALE IN FEET 0 20

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EXPANDED HYDROGEOLOGIC PROFILE
AA-AA'

FIGURE 3.0-3

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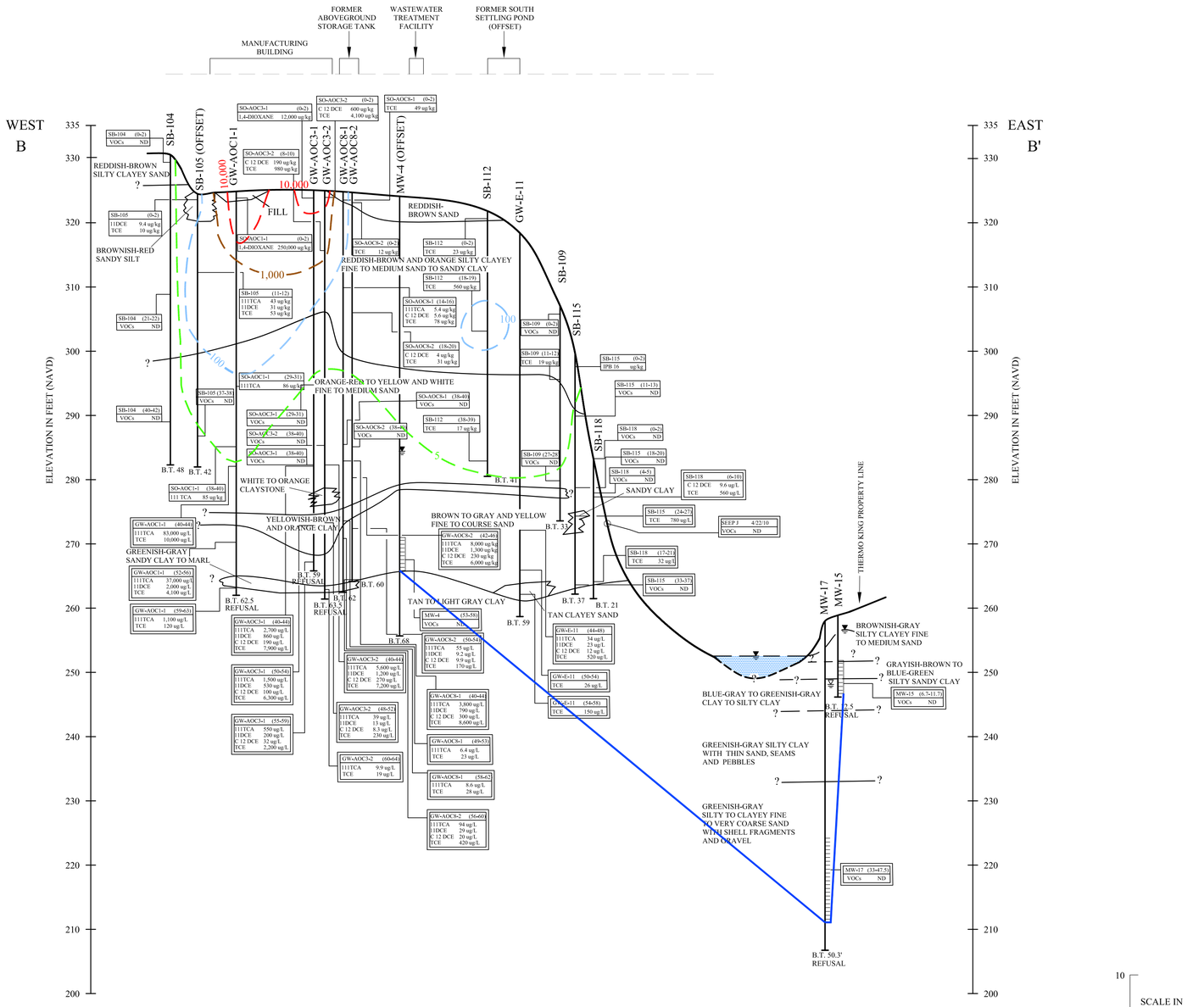

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON DECEMBER 14, 2015.
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- 10,000 / 1000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- IPB — ISOPROPYLBENZENE
- VC — VINYL CHLORIDE
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN IN FEET
- ug/kg= — MICROGRAMS PER KILOGRAMS
- ug/L= — MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(I)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTES:

1. THE ISOCONCENTRATION CONTOURS OF TOTAL VOLATILE ORGANIC COMPOUNDS (VOCS) INDICATE THE VERTICAL EXTENT OF VOCS IN SOIL ABOVE GROUNDWATER
2. VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(I)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.
3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

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DATE	3/1/2016

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HYDROGEOLOGIC PROFILE B–B'

FIGURE 3.0-4

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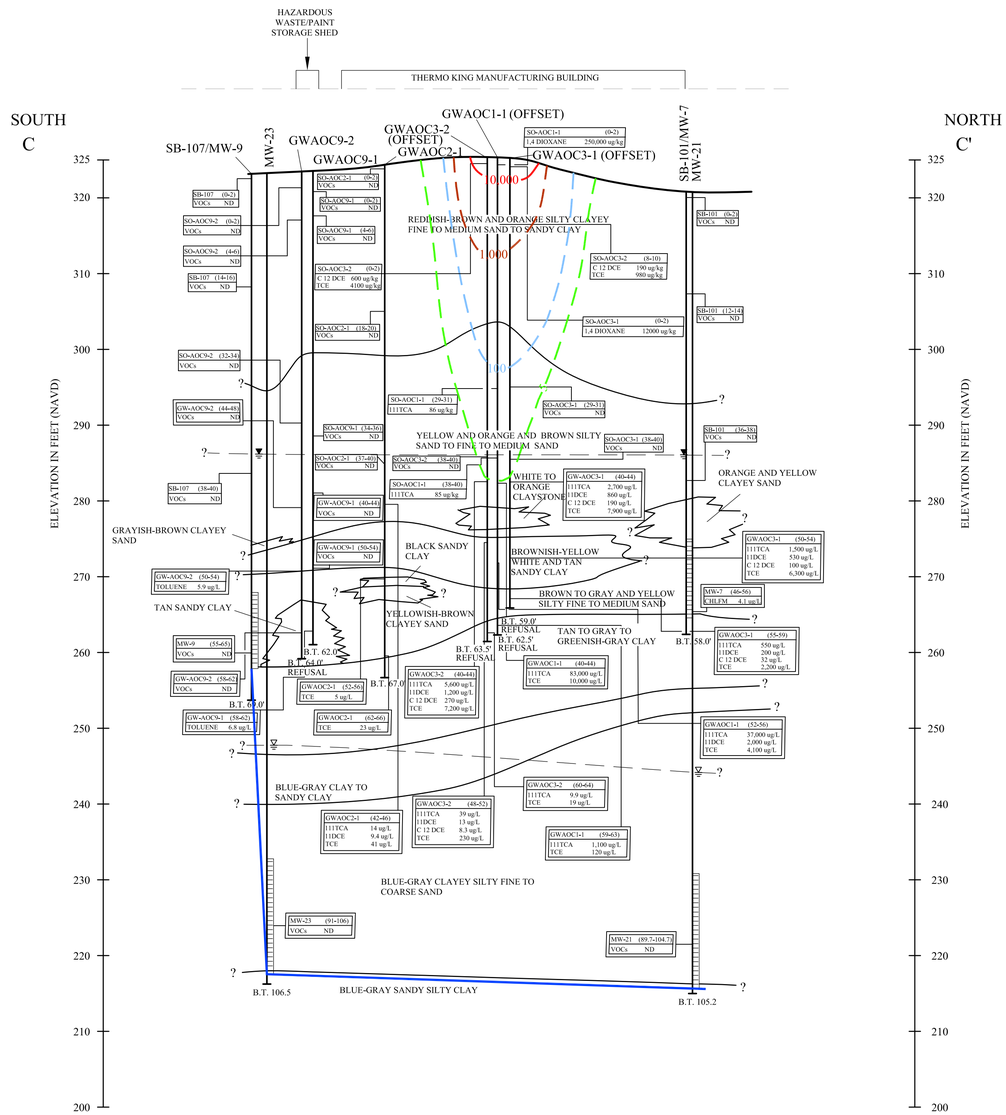

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON DECEMBER 14, 2015.
- 10,000 / 1000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- CHLFM — CHLOROFORM
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN
- ug/kg= — MICROGRAMS PER KILLOGRAMS
- ug/L= — MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988
- POD — POINT OF DEMONSTRATION WELL
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

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3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

10
SCALE IN FEET
0 200

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IN CHARGE	D. ALCOTT
DATE	3/1/2016

THERMO KING CORPORATION
LOUISVILLE, GEORGIA

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
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HYDROGEOLOGIC PROFILE
C–C'

FIGURE 3.0-5

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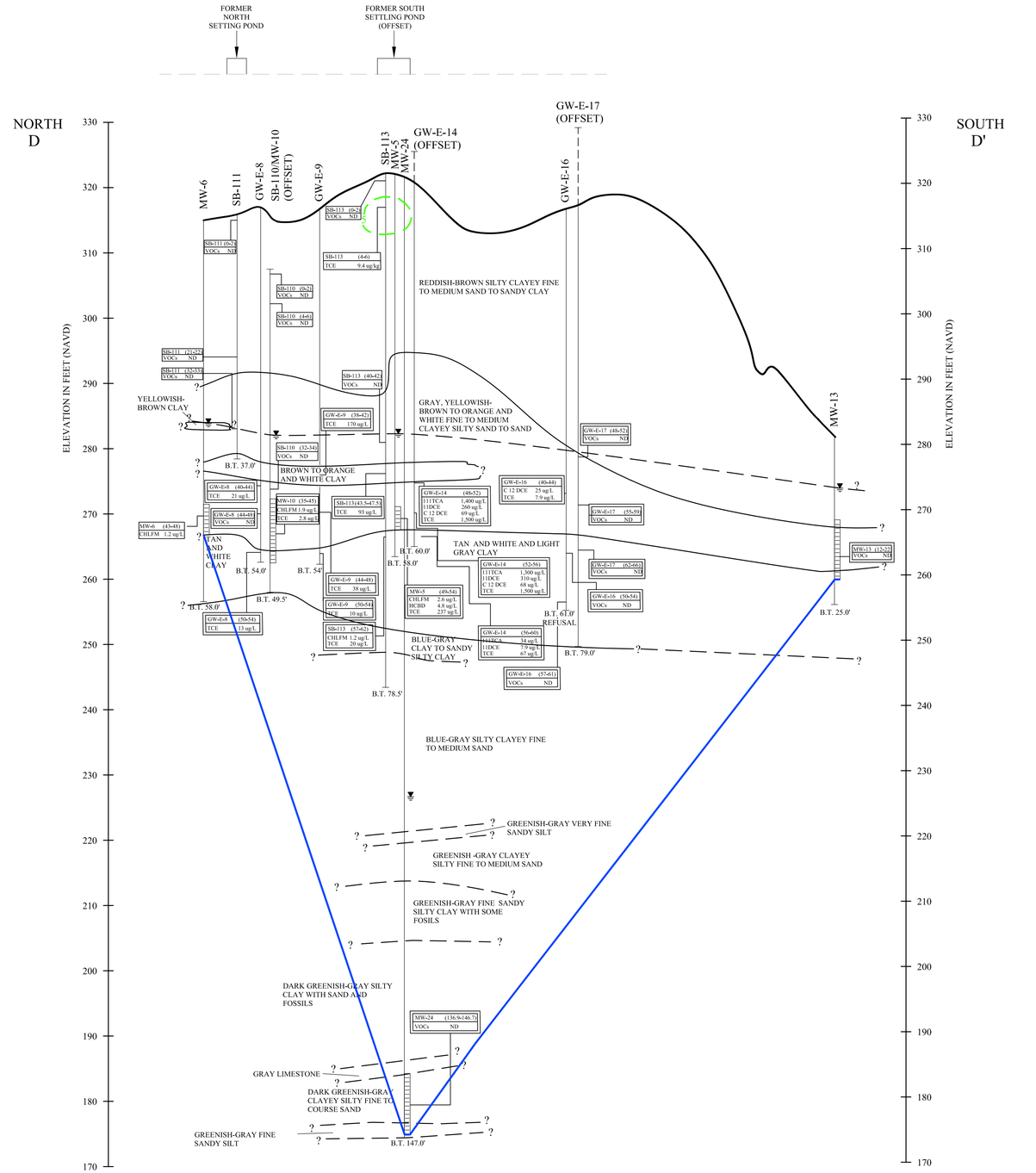

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON DECEMBER 14, 2015.
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- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- CHLFM — CHLOROFORM
- HCBD — HEXACHLOROBUTADIENE
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
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SCALE IN FEET: 10 / 0 / 200

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3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

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DRAWN	T. GLADSTONE
CHECKED	R. QUINN
IN CHARGE	D. ALCOTT
DATE	3/1/2016

THERMO KING CORPORATION
LOUISVILLE, GEORGIA

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
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HYDROGEOLOGIC PROFILE D–D'

FIGURE 3.0-6

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APPENDIX A

MARCH 2007 HSRA REVISED COMPLIANCE STATUS REPORT, VRP APPLICATION AND APPLICATION ADDENDUM

THERMO KING

Thermo King Corporation | 1430 Highway 24 East
Louisville, GA 30434
(478) 625-7241
(478) 625-7756 Fax
www.thermoking.com

March 21, 2007

Mr. David Reuland
Unit Coordinator
Hazardous Sites Response Program
Environmental Protection Division
Department of Natural Resources
2 Martin Luther King Drive., Suite 1462 East
Atlanta, GA 30334-9000

Subject: **Submission of the Revised Compliance Status Report**
Thermo King Corporation – Louisville, Jefferson County, Georgia
HSI Site 10702

Dear Mr. Reuland:

Thermo King Corporation, is hereby submitting to the Georgia Environmental Protection Division (EPD) three (3) copies of the Revised Compliance Status Report (CSR) for the Thermo King Corporation facility (HSI 10702) in Louisville, Georgia. Per the Hazardous Sites Reponse Program document submittal format, the Revised CSR is being submitted as one paper copy and two electronic copies on CD. This revised CSR is being provided to address the Georgia EPD's comments on the December 17, 2003 CSR issued on March 11, 2004 and subsequent comments on June 10, 2004, December 30, 2004, February 28, 2005, August 10, 2005, December 30, 2005, and January 19, 2007.

We look forward to addressing any questions or comments the Georgia EPD may have on this Revised CSR. Thermo King proposes to submit a Corrective Action Plan after EPD has reviewed and approved this Revised CSR. Please do not hesitate to contact me at (498) 625-7241 should you have any questions.

Sincerely yours,

THERMO KING CORPORATION

Jeffrey P. Frachiseur
Plant Manager
Thermo King Corporation

cc: David Kolb – Thermo King Corporation – Louisville, GA
Dave Sordi – Ingersoll Rand Corporation

Enclosure

Ingersoll Rand

Certification of Compliance With Risk Reduction Standards

I certify under penalty of law that this report and all attachments were prepared under Thermo King Corporation's direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of Thermo King Corporation's knowledge and belief, true, accurate, and complete. Thermo King Corporation is aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Based on Thermo King Corporation's review of the findings of this report with respect to the risk reduction standards of the Rules for Hazardous Site Response, Rule 391-3-19.07, Thermo King Corporation has determined that portions of the property located at 1430 Highway 24 East are not in compliance with Types 1, 2, 3, or 4 Risk Reduction Standards. Specifically, the site is not in compliance with Types 1 through 4 Risk Reduction Standards for surface and subsurface soil concentrations of 1,4-dioxane and trichloroethene beneath portions of the building or with Types 1 through 4 Risk Reduction Standards for ground-water concentrations for trichloroethene, 1,1,1-trichloroethane, and 1,1-dichloroethene for portions of the site east of the manufacturing building and west of Manson Branch.

Certified By: Date:

Jeffrey P. Frachiseur
Plant Manager
Thermo King Corporation

3/19/07

MACTEC

engineering and constructing a better tomorrow

March 21, 2007

Mr. David A. Kolb
ESH and Facility Manager
Thermo King Corporation
Ingersoll Rand Climate Control Technologies
1430 Highway 24 East
Louisville, Georgia 30434

Via: Electronic Copy on CD

Subject: **Revised Compliance Status Report**
Thermo King Corporation – Louisville, Georgia
HSI Site 10702
MACTEC Project 12000-0-2050

Dear Mr. Kolb:

MACTEC Engineering and Consulting, Inc. (MACTEC) is pleased to present you with this Revised Compliance Status Report (CSR) for the Thermo King facility in Louisville, Georgia. The CSR was revised to respond to the Georgia Environmental Protection Division comments on the December 17, 2003 CSR as issued on March 11, 2004, June 10, 2004, December 30, 2004, February 28, 2005, August 10, 2005, December 30, 2005, and January 19, 2007. The revised CSR is for your submittal to the Georgia Environmental Protection Division.

We appreciate the opportunity to provide environmental consulting services to the Thermo King Corporation. Please do not hesitate to call us at (770) 421-3400 should you have any questions on this report or the project.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

Rhonda N. Quinn, P.G.
Senior Geologist
Georgia Professional Geologist# 1031

A. David Alcott, P.E.
Senior Principal Engineer

cc: Dave Sordi – Ingersoll Rand Company – electronic copy on CD
David Reuland – Georgia EPD – 1 paper copy and 2 electronic copies on 2 CDs.

Professional Ground Water Scientist Certification

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in ground-water hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding ground-water monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction.

Rhonda N. Quinn, P.G.
Registered Professional Geologist
Georgia Registration #1031

PORTABLE DOCUMENT FORMAT CERTIFICATION

The electronic copy of the Revised Compliance Status Report for the Thermo King Corporation, HSI 10702 as provided on this CD is to the best of our knowledge complete and identical to the paper copy and virus free.

MACTEC Engineering and Consulting, Inc.

Rhonda N. Quinn, P.G.
Senior Geologist

A. David Alcott, P.E.
Senior Principal Engineer
By TCB with permission

REVISED COMPLIANCE STATUS REPORT
THERMO KING CORPORATION
LOUISVILLE, JEFFERSON COUNTY, GEORGIA
HSI 10702
Volume 1 of 2

Submitted To:

GEORGIA ENVIRONMENTAL PROTECTION DIVISION
Atlanta, Georgia

Submitted By:

THERMO KING CORPORATION
Louisville, Georgia

Prepared by:

MACTEC ENGINEERING AND CONSULTING, INC.
Kennesaw, Georgia

March 21, 2007
MACTEC Project No. 12000-0-2050

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LIST OF ACRONYMS

bgs	below ground surface
CSR	Compliance Status Report
DPT	Direct-Push Technology
DAF	Dilution Attenuation Factor
ECOPCs	Ecological Constituents of Potential Concern
EPD	Georgia Environmental Protection Division
ERA	Ecological Risk Assessment
HSI	Hazardous Site Inventory
HSRA	Hazardous Site Response Act
IR	Ingersoll Rand Company
LOAEL	Lowest Observed Adverse Effects Levels
MACTEC	MACTEC Engineering and Consulting, Inc
mg/kg	milligrams per liter
mg/L	milligrams per kilograms
NAVD	North American Vertical Datum 1988
NOAEL	No Observed Adverse Effects Levels
GDNR	Georgia Department of Natural Resources
POTW	Publicly-owned treatment works
QA/QC	Quality Assurance/Quality Control
RQSM	Reportable Quantity Scoring Method
SLERA	Screening Level Ecological Risk Assessment
TCA	1,1,1-Trichloroethane
TCE	Trichloroethene
TK	Thermo King
µg/L	micrograms per liter
µg/kg	micrograms per kilogram
VOCs	Volatile organic compounds
USGS	United States Geological Survey
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

This Revised Compliance Status Report (CSR) documents site assessment activities and the status of compliance with Risk Reduction Standards (RRS) for the Thermo King Corporation site in Louisville, Georgia [Hazardous Site Inventory (HSI) No. 10702]. These activities are in response to the Georgia Environmental Protection Division (EPD) request for preparation and submittal of a Compliance Status Report for the Thermo King site as specified under rules of the Georgia Hazardous Site Response Act (HSRA) and to their initial March 11, 2004 comments on the December 17, 2003 CSR and to subsequent 2004, 2005, 2006, and 2007 comments regarding site-specific dilution attenuation factor and soil-water partition (Kd) coefficient studies.

The site is located on approximately 111 acres at 1430 Highway 24 East, Louisville, Jefferson County, Georgia. Prior to being developed for industrial use, portions of the original property were cleared for agricultural use. In 1961, the Draper Corporation constructed the initial plant building and began their operations. Draper Corporation manufactured tiller tractors and lawn mowers. In 1965, Westinghouse Electric Corporation (parent company of the Thermo King Corporation) purchased the Louisville facility. Westinghouse Electric Corporation owned and operated the Louisville facility under the name of Thermo King Corporation from 1965 to 1997. Ingersoll Rand Company purchased the Thermo King Corporation from Westinghouse in 1997. Thermo King began manufacturing at this location in 1965 and continues to the present. The Louisville facility manufactures refrigeration units that are used to refrigerate cargo container boxes, tractor-trailers, and buses. Manufacturing activities include metal fabrication, machining, welding, deburring, cleaning, painting, assembly, and testing of finished refrigeration units.

The site is located in the Atlantic Coastal Plain Physiographic Province and is underlain by Late Eocene sediments of the Barnwell Group consisting of the Tobacco Road Sand, the Twiggs Clay and Irwinton Sand. The “Uppermost water-bearing zone” at the site consists of a saturated brown fine to medium sand and is underlain by a layer of stiff tan and blue-gray clay (Twiggs Clay). The clayey stratum is approximately 15 feet thick. The ground water in the Uppermost water-bearing zone flows to the east toward Manson Branch and discharges to surface seeps along the eroded slope above the west bank of Manson Branch. The Uppermost water-bearing zone appears to be under perched conditions above the Twiggs Clay. The ground water in the Uppermost water-bearing zone has a horizontal gradient of about 0.004 feet/foot and flows at an estimated rate of 4 to 10 feet per year.

Stratigraphic borings indicate that the lithology and stratigraphy below the tan and blue-gray stiff clays are a series of gradation layers of clay to sandy clay and clayey sandy silt with lenses of limestone grading to fossiliferous sand at 177 feet, bgs. The next deeper water-bearing zone, referred to in this report as the "Intermediate water-bearing zone", is a blue-gray clayey sand stratum about 20 to 25 feet thick that is sandwiched between the top of the Twiggs Clay and a second deeper blue-gray clay layer. Ground water in the Intermediate water-bearing zone flows to the southwest toward the Ogeechee River. The Ogeechee River is about 1.5 miles southwest of the Thermo King site. The gradient in the Intermediate water-bearing zone is about 0.002 feet/foot and flows at an estimated rate of about 80 feet per year. There is a downward flow gradient between the Uppermost and Intermediate water-bearing zone of approximately 30 feet.

Based on the presence of volatile organic compounds (VOCs) in the Intermediate water-bearing zone, EPD requested in their March 11, 2004 comments that a deeper boring/monitoring well be installed to investigate for water-bearing zones below the Intermediate water-bearing zone. Monitoring well MW-24 was installed as a triple-cased well to a depth of 147 feet bgs. The lithology and stratigraphy encountered in well MW-24 below the Intermediate zone consisted of a dark greenish-gray fine sandy silty clay and a limestone layer grading to a saturated greenish-gray clayey silty fine to coarse sand and terminating in a dry light grayish-green fine sandy silt. This saturated clayey silty sand is below the Intermediate water-bearing zone and separated from the Intermediate zone by about 20 feet of silty clay. In this CSR this water-bearing zone is referred to as the Lower water-bearing zone. The lithologic and stratigraphic data from boring STB-1 and well MW-24 for the interval below the Intermediate water-bearing zone indicated clays and silts were present in this interval in both the boring and deep well. The ground-water elevation in the Lower water-bearing zone is about 10 feet lower than the ground-water elevation in the Intermediate water-bearing zone and about 40 feet lower than the ground-water elevation in the Uppermost water-bearing zone. Ground-water samples were collected from well MW-24 during two sampling events; VOCs were not detected in the ground-water samples from monitoring well MW-24.

Chlorinated solvents (trichloroethene and 1,1,1-trichloroethane) were used at the site from 1965 until 1997 to remove oils from machined metal components. The solvents were stored in aboveground storage tanks and were used in three vapor degreasers located inside the manufacturing building. The general storage and use of these solvents over a 30-year period resulted in releases of volatile organic compounds (VOCs) to soil and ground water on the Thermo King property. In 1997, VOCs were detected in the shallow soils beneath the floor slab of an equipment vault when a degreaser was removed. Thermo King

submitted a HSRA Release Notification on January 16, 1998 to the Georgia Environmental Protection Division (EPD) reporting the exceedence of the HSRA soil notification concentration for 1,4-dioxane (a stabilizer in commercial-grade 1,1,1-trichloroethane). Using the Reportable Quantity Screening Method (RQSM), Georgia EPD determined that the site did not exceed the RQSM threshold score and the site was not placed on the HSI. In early 2000, limited soil and ground-water sampling and analyses were conducted as part of the sale of Thermo King to Ingersoll Rand. On April 13, 2000, Thermo King submitted a HSRA Release Notification to the Georgia EPD for trichloroethene, toluene, and chloroform in ground water. The Georgia EPD again calculated a score for the facility using the RQSM, and the site did not exceed the RQSM threshold score and was not placed on the HSI.

Based on the presence of VOCs in the ground water, water samples were collected and analyzed from the six City of Louisville water-supply wells, from private water-supply wells closest to the site, from seeps on the slope above the west side of Manson Branch and from Manson Branch. VOCs were not detected in City of Louisville or private water-supply wells or in the surface water of Manson Branch. VOCs were detected in some seeps located on the eroded slope above the west bank of Manson Branch. Based on the analytical results from the seeps, additional soil and ground water sampling and analyses were conducted. A supplemental HSRA Notification was submitted to the Georgia EPD on July 19, 2001 for the dichloroethenes detected in ground water. A Ground-Water Flow Path Demonstration document was also submitted with the supplemental HSRA notification to demonstrate that VOC-impacted ground water was discharging to surface seeps along the eroded slope above Manson Branch. On October 2, 2001, Georgia EPD listed the Thermo King Louisville site on the Hazardous Sites Inventory (HSI) because the ground-water threshold score was exceeded due to the toxicity value of the dichloroethenes and a water-supply well being located within a one-half mile radius of the VOC ground-water plume. On December 13, 2002, Georgia EPD "called-in" the Compliance Status Report for the Thermo King facility.

The investigation of the origins of the VOC releases and the extent of VOC impacts in soil, ground water and surface water on the Thermo King site has included the drilling of 79 borings for soil and/or ground-water sampling, installation of 24 permanent monitoring wells, collection of 125 soil samples and 185 ground-water samples for laboratory analyses, and the collection of 77 water samples from seeps and Manson Branch. The investigations indicate that releases have occurred to soil and ground water in areas of chemical storage, use, and disposal, primarily from degreasers formerly located inside the manufacturing building, from chemical storage areas adjacent to the east side of the manufacturing building, and from two former pond areas located east of the building. The horizontal and vertical extent

of contaminants (VOCs) in surface and subsurface soils has been delineated. The most significant impacts to soils appear to be in the areas of the former degreasers location inside the building, beneath the floor slab.

The horizontal and vertical extent of VOCs in the ground water in the Uppermost and Intermediate water-bearing zones has also been delineated. Impacts to ground water in the Uppermost water-bearing zone are present beneath the manufacturing building and in the area of the former south pond. Impacted Uppermost water-bearing zone ground water flows to the east, discharging to seeps on the eroded slope above the west bank of the Manson Branch. Impacts in the Intermediate water-bearing zone are to ground water located beneath and to the east of the area of the former south pond, underlying portions of the Uppermost water-bearing zone where contaminant concentrations are relatively high. Impacted Intermediate water-bearing zone ground water flows to the southwest. No impacted ground water in either zone flows off-site. No impacts to Lower water-bearing zone ground water were detected. No impacts to surface water in Manson Branch have been detected.

An exposure assessment was conducted to identify human populations and ecological systems that may be susceptible to exposure to contaminants from the site. Current and future workers are the most likely on-site human receptors. Other potential on-site receptors include commercial/industrial/construction workers that may go onto the site for limited periods of time or the occasional trespasser. The potential for residential receptors to be present on the Thermo King property in the future is considered low. Exposure to VOCs in ground water at the site is not an actual or potential threat to drinking water supplies. The ecological receptor evaluation identified 12 species of animals and 18 species of plants present in Jefferson and surrounding counties that have protected status under Georgia and/or Federal programs. No rare or unusual natural communities were noted in the Louisville, Georgia area by the Georgia DNR. A wetland area is associated with Manson Branch which has been impounded by beaver activity. Ecological receptors could be exposed by contact with or ingestion of VOC-contaminated water from seeps or from seeds, vegetation, or insects contaminated by the VOC-impacted water. The ecologic receptors identified at the Thermo King site include semi-aquatic plants, non-migratory animals or animals with small home ranges, avian predators and potentially game animals that feed on items produced on-site and could potentially be exposed to VOCs. A screening level ecological risk assessment (SLERA) was performed in late 2004 at the request of the Georgia EPD to evaluate the risk to ecological receptors. The SLERA indicated the risk from seep water and soil for the Thermo King site are below the

USEPA's benchmark value of 1 and; thus, ecological risks at this site are deemed negligible and no further ecological assessment is necessary.

Risk Reduction Standards were calculated for soil and ground water. Site-specific soil to water partition coefficients (Kd) were calculated for trichloroethene and 1,1,1-trichloroethane for the site using site soil analytical results. Soil-sampling locations with concentrations of 1,4-dioxane that exceed the Type 1 through Type 4 RRSs are located beneath the west and east sides of the plant building, in the area of former degreasers. 1,4-Dioxane has not been detected in ground water at the site and the depth to ground water is approximately 40 feet below the building floor slab. Trichloroethene concentrations in soil-sampling location that exceeded the Types 1 through Type 4 RRS are located beneath the west and east sides of the plant building, also in the area of the former degreasers.

VOC concentrations of 1,1,1-trichloroethane; 1,1-dichloroethene; and trichloroethene that exceed the Types 1 through Type 4 RRSs were detected at approximately 30 ground-water sampling locations. Maximum concentrations were in the vicinity of the manufacturing building and the former south settling pond. The portion of the site that does not meet Types 1, 2, 3, or 4 Risk Reduction Standards for soil and/or ground water is limited to the portion of the site located west of Manson Branch.

1.0 INTRODUCTION

The Thermo King Corporation is located at 1430 Highway 24 East in Louisville, Jefferson County, Georgia. The facility submitted Hazardous Site Response Act (HSRA) notifications in 1998, 2000, and 2001 for volatile organic compounds (VOCs) detected in soil and ground water. The Thermo King site was placed on the Hazardous Site Inventory in October 2001 as site number 10702. The Georgia Environmental Protection Division (EPD) "called-in" the Compliance Status Report for the Thermo King Louisville site on December 13, 2002. MACTEC Engineering and Consulting, Inc. (MACTEC) was contracted by Thermo King to prepare a Compliance Status Report (CSR) for the site. The CSR, submitted on December 17, 2003, was prepared in accordance with Sections 391-3-19-.06(3)(a) and 391-3-19-.07 of the Rules for Hazardous Site Response and documented the delineation of the extent of VOC impact to site soils and ground water and the status of compliance with Risk Reduction Standards (RRS) for the Thermo King Corporation site in Louisville, Georgia.

The Georgia EPD provided comments on the CSR in a letter dated March 11, 2004. Thermo King submitted responses on April 16, 2004 to the March 11, 2004 comments and requested a meeting with Georgia EPD to discuss the comments. A meeting was held on May 4, 2004 at the Georgia EPD offices in the Floyd Towers. A summary of the meeting discussions and proposed actions are documented in a letter to the Georgia EPD, dated May 14, 2004. The letter also provided a description of the proposed plans and location for installing a deep vertical extent monitoring well. In a letter dated June 10, 2004, the Georgia EPD requested that the deep vertical extent monitoring well be located 150 feet south to southwest of monitoring well MW-14 and that a site-specific dilution attenuation factor (DAF) be calculated. Thermo King responded on July 15, 2004 with a site-specific DAF of 61 calculated using the Center for Research in Water Resources (CRWR) Online Report 03-02 model. In a letter dated December 30, 2004, the Georgia EPD did not accept the CRWR calculation of this site-specific DAF and requested the DAF be calculated using Equations 11 and 12 of the USEPA Soil Screening Guidance (USEPA 1996).

On February 7, 2005; Thermo King and MACTEC responded to EPD's December 30, 2004 comment with a revised DAF of 22, calculated using Equation 11 for the dilution factor and the USEPA-approved Domenico Model for the attenuation factor. EPD responded to Thermo King/MACTEC's February 7, 2005 letter proposing instead a DAF of 1.622 and requested the collection of additional data using total

and synthetic precipitation leaching procedure (SPLP) to calculate site-specific Kd values for each regulated substance for the site. Thermo King and MACTEC responded to EPD on April 7, 2005 with a description of the proposed scope of work for the Kd study. In the same document, Thermo King/MACTEC submitted the analytical results of the 2004 groundwater monitoring activities and the well construction data for the deep vertical extent monitoring well MW-24. On June 24, 2005, Thermo King/MACTEC submitted the results of the Kd study to the Georgia EPD along with a revised site-specific DAF and revised RRS using the new DAF and Kd values. The Georgia EPD responded in a letter dated August 10, 2005 to the Kd values presented in the June 2005 submittal and proposed area-specific soil screening levels for 1,1,1-trichloroethane of 1.1 to 1.47 mg/kg and for trichloroethene of 0.89 mg/kg.

A meeting was conducted with EPD, Thermo King, and MACTEC on September 6, 2005 to further discuss leaching values and soil screening levels for the site. As follow-up to the meeting, Thermo King and MACTEC proposed a trichloroethene soil screening level of 5 mg/kg in a letter to EPD dated September 9, 2005. EPD commented on the September 2005 correspondence by suggesting that soil screening levels can be calculated for the entire site or for separate source areas. Thermo King and MACTEC responded, proposing a trichloroethene soil screening level of 1.8 mg/kg based on the Kd investigation results where the leaching concentration (0.0072 mg/l) was less than 20 times the trichloroethene maximum contaminant level of 0.005 mg/l. In a letter dated January 19, 2007, EPD concurred with the trichloroethene soil screening level of 1.8 mg/kg and requested a Corrective Action Plan (CAP) where the outstanding CSR deficiencies would be addressed. Due to the several comments and responses between EPD and Thermo King from 2004 to 2006, Thermo King requested and EPD concurred that this Revised CSR would be prepared. In a letter dated February 6, 2007, Thermo King, and MACTEC confirmed that a Revised CSR will be submitted and that a CAP would be submitted after EPD approves the Revised CSR.

This revised CSR was prepared to address the Georgia EPD's comments from March 11, 2004 on the December 17, 2003 CSR and subsequent EPD comments on June 10, 2004, December 30, 2004, February 28, 2005, August 10, 2005, December 30, 2005, and January 19, 2007. These comments were primarily associated with site-specific DAF and Kd values and Risk Reduction Standards. The revised CSR includes the installation and results of the deep vertical extent monitoring well, sampling and analysis of site-specific metals in ground-water samples, findings of an screening-level ecological risk evaluation, revision of the RRS using updated toxicity values and site-specific DAF and Kd values.

2.0 SITE BACKGROUND

The Thermo King (TK) facility is a manufacturing plant located on approximately 111 acres on State Route 24 in Louisville, Jefferson County, Georgia (Figure 1.0 and Appendix A). The Thermo King plant operations area occupies approximately 55 acres and is referred to as the plant parcel or plant property. In July 2002, Thermo King acquired an additional 56 acres of adjoining property on the east side of their plant property that includes and extends across to the east side of Manson Branch (Figures 2.1 and 2.2). The Louisville facility manufactures refrigeration units that are used to refrigerate the contents in cargo container boxes, tractor-trailers, and buses. Manufacturing activities include metal fabrication, machining, welding, deburring, cleaning, surface treatment with zinc phosphate and non-chromic aluminum, painting, assembly, and testing of finished refrigeration units.

2.1 SITE HISTORY

The property now occupied by the Thermo King site was initially cultivated land for agriculture purposes. Aerial photographs from 1954 and 1955 show the subject property and the areas to the north, south, and west to be cultivated land. The area to the east of the subject property in 1954-1955 was woodlands. The Draper Corporation constructed the initial plant building on the property in 1961 and began operations for manufacturing tiller tractors and lawn mowers. A round-shaped pond approximately 90 feet in diameter was constructed in 1961-1962 in the northeast corner of the plant property. It is unknown what activities or purpose the pond served during the Draper Corporation's ownership. This now closed pond was later used by Thermo King in their wastewater treatment operations and referred to as the North Settling Pond. In 1963, the Draper Corporation constructed an addition to the plant building to the south side of the 1961 building and installed a septic system on the east side of the property.

In late 1964 to January 1965, the Thermo King Corporation purchased the Louisville facility and the 55-acre property from the Draper Corporation. The Thermo King Corporation was owned by Westinghouse Electric Corporation. Westinghouse Electric Corporation conducted operations at the Louisville facility as the Thermo King Corporation from 1965 to 1997.

Thermo King began manufacturing refrigeration units for trucks in 1965 at the Louisville facility. In 1965 and 1966, two building additions were constructed to the south end of the 1961-1963 main buildings. In 1970, a wastewater treatment facility was constructed on the east side of the property to

precipitate metals from wastewater prior to discharge to the City of Louisville publicly-owned treatment works (POTW). An aerobic lagoon approximately 100 feet square was also constructed on the east side of the property in 1970 that was used in conjunction with the wastewater treatment operations. This now closed lagoon is referred to as the South Settling Pond. The facility connected to the City of Louisville POTW in 1970 and began discharging treated wastewater to the city. Thermo King constructed two more building additions to the main building in 1974, one to the south end of the 1961-1966 building and one to the north end of the 1961 building. Several small building extensions were also constructed on the east and west sides of the main building from 1976 to 1986. The wastewater treatment facility was expanded in 1984 and 1986. Based on a 1981 aerial photograph of the site, the former North Setting Pond was no longer visible. In 1983, Thermo King discontinued use of the former South Settling Pond and closed it. No documentation was available describing the closing of these settling ponds. In 1997, Westinghouse Electric Corporation sold the Thermo King Corporation to the Ingersoll Rand Company. Thermo King continues to manufacture refrigeration units for trucks, buses, and other rolling stock. Thermo King discontinued use of chlorinated solvents when sold to Ingersoll Rand in 1997.

2.2 PREVIOUS FACILITY OPERATIONS

The Thermo King site was historically used for agricultural and manufacturing activities. Based on aerial photographs, the subject site was cultivated land and woodlands until at least 1960. The Draper Corporation constructed the initial building in 1961 and began manufacturing operations. We understand that the primary manufacturing activities conducted by Draper Corporation was metal fabrication for tractor and mower frames and included metal shaping, machining, welding, cleaning, painting, and assembly. Draper purchased motors for the tractors and mowers from other manufacturers and assembled the motors onto the frames manufactured at the Louisville facility. There is no information available on the types or quantities of solvents or paints used by Draper at the facility.

Thermo King has manufactured refrigeration units at the site since it began operations in Louisville in 1965. The types and quantities of solvents and paints used have varied during the years of manufacturing. In 1965, toluene was used as paint thinner. Toluene was stored outside of the building on the east side in an aboveground storage tank (Figure 2.2). In 1978, Thermo King converted from using toluene to xylenes as a paint thinner. A new aboveground tank for the storage of xylenes was located adjacent to the toluene tank (Figure 2.2).

A prototype degreaser that reportedly used trichloroethene was installed on the west side of the building in 1966-1967, used for approximately nine months, and then removed from the facility. Later in 1967, a side-by-side coil degreaser that used trichloroethene was installed on the east side of the building (Figure 2.2). In 1980, the side-by-side coil degreaser was removed from service and from the building and later sold for scrap in 1982. Also in 1980, an elevator degreaser was installed in an equipment pit on the east side of the building and a coil degreaser (compressor/cross-rod degreaser) was installed on the west side of the building (Figure 2.2). In 1988, the two remaining degreasers were converted from use of trichloroethene to 1,1,1-trichloroethane as a cleaning solvent. The 1,1,1-trichloroethane contained 1,4-dioxane as a stabilizing compound. The compressor degreaser on the west side of the building was removed from the facility in 1995. No documentation was available on the removal of this degreaser. The elevator degreaser on the east side of the building was removed in 1997 and the equipment pit was backfilled. The 1997 degreaser removal and associated soil sampling and analyses are described in Section 2.4.1 of this Revised CSR. Documentation is not available on the handling, management and disposal of the toluene, xylenes, trichloroethene, and 1,1,1-trichloroethane prior to 1990. Since 1997, no chlorinated solvent degreasers have been operated at the Thermo King site. There are no records of underground storage tanks having been used at the site.

The first trichloroethene aboveground storage tank was located outside the building between the east wall of the plant building and the parking area. Another aboveground storage tank for the storage of trichloroethene was installed on the east side of the building beneath a curbed shed and the previous trichloroethene tank was removed from the property. In 1986, a trichloroethene release from the aboveground storage tank piping was reported at the facility and subsequently cleaned up. No documentation was available on the spill and cleanup.

During Draper Corporation's ownership and operation of the Louisville manufacturing facility, two septic tank and field systems were used to manage wastewater. The front septic tank (former north septic tank and drain field) was reported to have been installed in 1961. An evaporation pond (former north settling pond) was also reported to have been constructed in 1961-1962. The east septic tank and field (former east tank and drain field) were reported to have been installed in 1963. In 1970, Thermo King constructed a wastewater treatment facility to pre-treat wastewater for metals prior to discharge to the City of Louisville POTW. Also in 1970, a second aerobic lagoon (former south settling pond) was constructed. Upgrades were made to the wastewater treatment operations in 1983 and the south settling pond was taken out of service and closed. No documentation was available on the pond closure.

2.3 CURRENT SITE DESCRIPTION

Appendix A provides the plats of the Thermo King plant parcel of approximately 55 acres and the eastern parcel of approximately 56 acres. The site geographic coordinates are 33° 0‘ 10“ North latitude 81° 23‘ 16“ West longitude [United Stated Geologic Survey (USGS) Topographic Quadrangle, Louisville, Georgia 1948, Photorevised 1980]. The western portion of the site adjacent to the manufacturing building is higher than the eastern side of the property with ground surface elevations ranging from approximately 330 to 335 feet, NAVD. The eastern portion of the site slopes from an elevation of 325 feet, NAVD, down to approximate surface elevations of 245 to 250 feet, NAVD, along Manson Branch and then rises in elevation to the east, beyond Manson Branch.

The majority of the acreage is woodlands with the manufacturing and associated activities occupying the north central and northwestern portions of the site (Figure 2.1). The main manufacturing building with approximately 300,000 square feet under roof and is constructed on a concrete slab with metal walls. The wastewater treatment facility is a separate building located to the east of the main building and houses wastewater treatment machinery and chemicals used in the treatment process. There are also roofed open-sided storage sheds located on the west, south and east sides of the main building that are used for the storage of materials and equipment, and as testing chambers for finished products. A hazardous waste and paint waste storage area is located in a covered and curbed shed on the south end of the building. The former aboveground storage tank area on the east side of the building was also covered and curbed. The aboveground storage tanks previously used to store toluene, xylenes, trichloroethene, diesel, gasoline, and Freon® have been removed from the site. An aboveground tank containing water for fire-fighting purposes is located to the northwest of the main building. Parking areas are located on the northwest and east sides of the main building. Uncovered and paved areas located on the west, south and east sides of the main building are used for open storage of metal materials and equipment. An eight-foot high chain-link fence encloses the main building and storage areas.

The woodlands surrounding the building are a combination of pines with a few hardwoods. The majority of the woodland areas have a thick growth of scrub brush with small trees, briars, and hedges. Manson Branch, a tributary to the Ogeechee River, is a small swamp-like stream flowing from north to south. Beavers have constructed dams along the stream’s reach between Highways 24 and 17, impounding the flow and flooding the low-lying areas adjacent to the stream.

The area immediately surrounding the Thermo King site is residential, agricultural and woodlands. The site is bounded on the north by Highway 24 and a residential area (across Highway 24) with single-family homes. The site is bounded on the east beyond Manson Branch with a few single-family homes and woodlands. Lizzie Quarterman and Tommie Quarterman own the property adjacent to Thermo King's northeast corner (Appendix A) and the Ethel Clark estate owns the property adjacent to Thermo King's east and south boundaries. To the south beyond the Clark estate are more fields and woodlands. Woodlands owned by the Louisville Chamber of Commerce bound the site to the west. Beyond these adjacent and near-site properties, the areas further to the east and south become more rural. Residential development increases to the north. The City of Louisville and associated residential and commercial development are to the west.

2.4 PRE-CSR ENVIRONMENTAL SITE INVESTIGATIONS

Environmental investigations have been conducted of the soil and ground water at the site in 1997, 2000, 2003, 2004, and 2005. The 1997 and 2000 environmental investigations were conducted before the site was listed on the HSRA Hazardous Site Inventory (HSI) in late 2002. These pre-CSR investigations included sampling and analysis of the soils beneath a former degreaser (1997), sampling and analysis of soil and ground water when Thermo King was sold to Ingersoll Rand, and sampling and analyses of surface water and area water-supply wells (2000). The environmental investigations conducted from 2003 to 2005 are associated with the preparation of the CSR and are described in Section 3.0. The pre-CSR investigations are described in the following sections.

2.4.1 1997 Elevator Degreaser Removal

In December 1997, Thermo King conducted cleaning, inspection and sampling at an indoor below-grade concrete equipment vault that was being closed (Environmental Strategies Corporation, 1998). The vault previously housed a chlorinated solvent (trichloroethene and later 1,1,1-trichloroethane) vapor degreaser (elevator degreaser) that was removed from service in October 1997. Soil samples were collected below the floor of the vault at depths of 8 to 20 inches, 5 feet, and 10 feet. Trace amounts of trichloroethene and 1,1,1-trichloroethane were detected in the soils down to 20 inches below the vault floor at concentrations less than the Georgia Hazardous Site Response Act (HSRA) Notification Concentrations (NC) for these substances. 1,4-Dioxane (a stabilizer for 1,1,1-trichloroethane) was detected in soils at 20 inches and 5 feet below the floor of the vault at concentrations exceeding the HSRA NC. Soil samples from depths of

10 feet below the vault floor did not detect 1,4-dioxane. Thermo King submitted a HSRA Release Notification on January 16, 1998 to the Georgia Environmental Protection Division (EPD) reporting exceedence of the HSRA NC for 1,4-dioxane in soil. EPD responded with a letter dated April 12, 2000 stating EPD had no reason to believe that a release exceeding a reportable quantity had occurred at the Thermo King facility and the site would not be listed on the HSI.

2.4.2 Initial Soil and Ground-Water Investigations

A limited subsurface investigation of soils and ground water at the Thermo King plant property related to the sale of Thermo King to Ingersoll Rand (Environmental Strategies Corporation, 2000) was conducted by Environmental Strategies Corporation (ESC) in January and February 2000. The investigation included the advancement of ten soil borings (SB-1 to SB-10) with soil sampling in the areas of the former north and south settling ponds. The soil samples were analyzed for volatile organic compounds (VOCs) by USEPA Method 5035/8260B and for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver by USEPA Methods 6010B and 7471. Six permanent monitoring wells (MW-1 to MW-6) were installed to the top of the tan stiff clay and screened the uppermost water-bearing zone. Ground-water samples were collected and analyzed for VOCs by USEPA Method 8260B.

The investigation revealed the presence of trichloroethene and toluene in some of the soil and ground-water samples at concentrations above the HSRA NC. Tetrachloroethene was detected in a few soil samples at concentrations above the detection limit, but below the HSRA NC. Chloroform was detected in one ground-water sample. Arsenic, barium, chromium, lead, mercury, and selenium were detected above detection limits, but below the HSRA NC concentrations and below metals background concentrations found in regional soils. Cadmium and silver were not detected. Because metals were not detected above the HSRA NC concentrations or above regional background concentrations, the ground-water samples were not analyzed for these metals. On April 13, 2000, ESC and Thermo King prepared and submitted a HSRA Release Notification for the trichloroethene, toluene, and chloroform. The Georgia EPD scored the facility using the Reportable Quantity Screening Method (RQSM); the site did not exceed the RQSM threshold score. EPD responded with a letter dated July 24, 2000 stating EPD had no reason to believe that a release exceeding a reportable quantity had occurred at the Thermo King facility and the site would not be listed on the HSI. The analytical results and monitoring well construction records from the ESC investigation are provided in Appendices B and C.

2.4.3 Water Well and Surface Water Sampling and Analyses

The results of the ESC investigation indicated that the detected trichloroethene (TCE) may be migrating with the eastward ground-water flow toward Manson Branch. Based on these initial findings, MACTEC was contracted in May 2000 to collect and analyze water samples for VOCs from the six City of Louisville municipal water-supply wells and nine private water-supply wells near the facility. No VOCs were detected in the water samples from the municipal or private water-supply wells. A water sample from a surface seep (Manson Branch #2) located in a gully on the slope above the west bank of Manson Branch contained TCE and its degradation product cis-1,2-dichloroethene. In June 2000, additional surface water samples were collected and analyzed for VOCs from the main channel of Manson Branch along the stream's reach between Highways 24 and 17 and from other seeps located on the west bank of the stream. VOCs were not detected in the surface water samples from the main channel of Manson Branch between Highways 24 and 17. Cis-1,2-dichloroethene was detected in a seep (Seep #2) above the west bank of the stream. The report describing the water-supply well and surface water sampling and analyses and laboratory data are presented in the Report of Water Well and Surface Water Sampling and Analysis (LAW, 2000a) and provided as Appendix D.

2.4.4 Contamination Assessment

On the basis of the detection of TCE and cis-1,2-dichloroethene in ground-water seeps near Manson Branch, Thermo King (TK) authorized additional investigation of soils and ground water on the Thermo King property. The additional investigation, conducted from September to November 2000, was performed to evaluate the origins and preliminary extent of VOC releases to soil and ground water. The results of the investigation were presented in Report of Preliminary Assessment of Contamination for Corrective Action (LAW, 2000b) and are also included in this revised CSR. The investigation consisted of advancing 13 direct-push technology (DPT) borings for the collection of 44 soil samples, advancing 28 DPT borings for the collection of 80 ground-water samples and sampling the six existing monitoring wells (MW-1 to MW-6). The borings advanced for soil and ground-water sampling were GW-E-1 to GW-E-19, GW-AOC1-1, GW-AOC2-1, GW-AOC3-1, GW-AOC3-2, GW-AOC8-1, GW-AOC8-2, GW-AOC9-1, GW-AOC9-2, GW-AOC10-1, and stratigraphic boring STB-1. Soil and ground-water samples were analyzed for VOCs. The soil and ground-water sampling conducted in 2000 is described in Section 3.0 of this report, the locations are provided on Figure 3.0 and the analytical data are provided in Appendix C.

The investigation data revealed that the three former degreasers, two former settling ponds, and the aboveground storage tank area were potential origins of VOC releases to soil and ground water. The soil analytical data indicated VOCs were present in the surface soil down to ground water (at approximately 45 feet below ground surface) at locations including the former compressor/cross-rod degreaser, the former elevator and side-by-side degreasers, aboveground storage tank area, and the areas of the two former settling ponds (Figure 2.2). The investigation also indicated VOC contaminated ground-water extending horizontally from beneath the Thermo King building, eastward across the Thermo King property toward Manson Branch and vertically extended down to the top of stiff tan and blue-gray clays (at an approximate depth of 60 to 70 feet bgs). This water-bearing zone was subsequently named the Uppermost water-bearing zone. Confirmation samples were collected from the ground-water seeps previously identified as Manson Branch #2 and Seep #2 in November 2000 confirming the presence of TCE, 1,1-dichloroethene, and cis-1,2-dichloroethene in the seeps. The TCE and 1,1-dichloroethene concentrations in the Manson Branch #2 seep sample exceeded the HSRA NC values for ground water, i.e., the reported concentrations exceeded naturally occurring background concentrations. The boring records and analytical data from this 2000 investigation are provided in Appendices B and C.

A supplemental HSRA notification was prepared and submitted to the Georgia EPD due to the detection of additional VOC constituents from the September-November 2000 investigation. 1,1-dichloroethene and 1,2-dichloroethene were detected in the soil and ground water during the September-November 2000 investigation. These substances were not previously detected in the January-February 2000 investigation. A supplemental HSRA Notification was submitted to the Georgia EPD on July 19, 2001 for the dichloroethenes. A Ground-Water Flow Path Demonstration document was also submitted with the supplemental HSRA notification. The objective of the ground-water flow path analysis was to demonstrate through analytical and hydrogeologic data that there were no drinking water receptors to the VOC-impacted ground water. The Ground-Water Flow Path Demonstration indicated that the VOC-impacted ground-water in the Uppermost water-bearing zone was discharging to surface seeps above Manson Branch and not to municipal or private water-supply wells.

The Flow Path Analysis document included the May and June 2000 analytical data from the water samples from the stream and water-supply wells and a hydrogeologic profile revealing how ground water from the Thermo King plant area discharged in seeps above Manson Branch. The flow path analysis also utilized hydrogeologic principles to show that the uppermost ground water on the east side of Manson Branch flowed back toward Manson Branch instead of continuing east toward private water-supply well

locations. On October 2, 2001, the Georgia EPD listed the Thermo King Louisville site on the Hazardous Sites Inventory (HSI), because the ground-water threshold score was exceeded due to the toxicity value of the dichloroethenes and because a water-supply well was located within a one-half mile radius of the VOC ground-water plume. On December 13, 2002, the Georgia EPD "called-in" the CSR for the Thermo King Louisville site. A CSR was submitted on December 17, 2003 that included data from the investigations conducted in 2000 and the CSR assessment conducted in 2003. EPD provided comments on the CSR in a letter dated March 10, 2004. This revised CSR includes the data from the 2003 CSR and additional data collected in 2004 and 2005 in response to EPD comments.

2.5 DESCRIPTION OF EACH SUSPECTED ORIGIN OF RELEASE

VOCs have been identified in soil and ground water at the TK site and are attributed to the manufacturing activities conducted on the property since its development in 1961. The VOCs are associated with the storage, general material handling, spillage, and the operation of former vapor degreasers using chlorinated solvents. During the 2000 investigation, 11 areas of potential concern were investigated to determine if they were origins of releases. These 11 areas of concern are presented on Figure 2.2 and are discussed as follows.

- AOC 1: Former Compressor/Cross-Rod Degreaser. VOCs were detected in both soil and ground-water samples at a location adjacent to the former degreaser. These data confirm that the Former Compressor/Cross-Rod Degreaser was a potential origin of VOC release(s) to soil and ground water.

- AOC 2: Former Rear of Building. This area prior to 1974 was formerly used to store spent solvent. VOCs were detected only in ground-water samples downgradient of the former rear-of-building area. These ground-water data indicate a VOC release to the uppermost ground water has occurred; however, given that no VOCs were detected in soils in this area it does not appear that the pre-1974 rear-of-building area was the origin of a release.

- AOC 3: Former Coil/Elevator Degreaser and Former Side-by-Side Degreaser. VOCs were detected in both soil and ground-water samples at a location adjacent to and downgradient of the two former degreasers. These data confirm that the Former Coil/Elevator and Side-by-Side Degreasers were potential origins of VOC releases to soil and ground water.

- AOC 4: Former North Settling Pond and AOC 5: Former South Settling Pond. VOCs were detected in the shallow soils and ground-water samples at locations within and downgradient of the former settling ponds. These data confirm that the former settling ponds were a potential origin of VOC releases to soil and ground water.

- AOC 6: Former East Septic Tank and Drain Field. Trichloroethene was detected in ground-water samples from borings GW-E-9 and GW-E-10. These borings were advanced to investigate the ground-water quality downgradient of the reported location of the septic system. These data indicate a VOC release to ground water has occurred; however, given that no VOCs were detected in soils in this area it does not appear that the septic system was an origin of a release.

- AOC 7: Former North Septic Tank and Drain Field. Boring GW-E-1 and monitoring well MW-6 were installed downgradient of the manufacturing building and also downgradient of the reported location of the septic system. VOCs were not detected in soil samples from boring GW-E-1. VOCs were not detected in the ground-water samples from the boring or monitoring well. Based on these data, the former north septic system is not a likely origin of VOC releases.

- AOC 8: Former Aboveground Storage Tank Area for Diesel Fuel, Antifreeze, Trichloroethene, and Freon®. VOCs were detected in both soil and ground-water samples at locations adjacent to and downgradient of the former aboveground storage tank area. These data confirm that the aboveground storage tank area was a potential origin of VOC releases to soil and ground water.

- AOC 9: Hazardous Waste, Solvent, and Paint Storage Area. Toluene at low concentrations was detected only in ground-water samples collected adjacent and downgradient of the storage area. The ground-water data indicate a release to ground water has occurred, but does not confirm that the storage area was the origin of a release. Given the low toluene concentrations detected, the implied releases may have been from general use in the area rather than from a specific origin.

- AOC 10: Stormwater Drop Inlet. VOCs were detected only in the ground-water samples downgradient of the stormwater drop inlet. The ground-water data indicate a release to ground water has occurred in the vicinity of the stormwater drop inlet, but does not confirm that the drop inlet was the origin of a release.

- AOC 11: East Side Drain Outfalls Nos. 1 and 2. Trichloroethene was detected in ground-water samples from borings GW-E 7 to GW-E-12. These borings were advanced to investigate ground-water quality downgradient of the plant. These data indicate a release to ground water has occurred; however, it does not confirm that the release was from the drainage outfalls.

In summary, the apparent origins of VOC releases at the site are as follows along with the approximate size of the footprint of the release areas:

- Former Compressor/Cross-Rod Degreaser (Size: 100 feet × 100 feet = 0.23 acres)
- Former Coil/Elevator Degreaser and Former Side-by-Side Degreaser (Size: 120 feet × 80 feet = 0.22 acres)
- Former North Settling Pond (Size: 100 feet × 120 feet = 0.28 feet)
- Former South Settling Pond (Size: 100 feet × 130 feet = 0.30 acres)

- Former Aboveground Storage Tank Area for Diesel Fuel, Antifreeze, Trichloroethene, and Freon (Size: 70 feet × 70 feet = 0.11 acres)

2.6 SITE-SPECIFIC REGULATED SUBSTANCES

Aromatic and chlorinated solvents have been used on the Thermo King property since at least 1965. These solvents have included toluene, xylenes, trichloroethene, and 1,1,1-trichloroethane. The 1,1,1-trichloroethane contained 1,4-dioxane as a stabilizer compound. A few other VOCs have also been detected in the soil and ground water. All are discussed below.

1,1,2-Trichloroethane was detected in four soil samples from below the building floor slab adjacent to the former compressor/cross-rod degreaser. This VOC has not been detected in other soil or ground-water samples collected at the site.

1,1,1-Trichloroethane (111-TCA) was detected in several soil, ground-water, and seep water samples. 111-TCA was used as a solvent from 1988 to 1997 in the facility degreasers.

1,1-Dichloroethene and cis-1,2-dichloroethene were detected in several soil, ground-water, and seep water samples. These compounds are degradation products of trichloroethene.

1,4-Dioxane was detected in several soil samples collected from below the building floor slab in the areas of the former compressor/cross-rod degreaser and the former elevator and side-by-side degreasers. 1,4-Dioxane was a stabilizer compound in the 1,1,1-trichloroethane.

Chloroform was detected sporadically at very low concentrations in a few ground-water samples and is believed to be an artifact from the decontamination of sampling equipment with potable water. Chloroform was detected in one soil sample collected from below the building floor slab.

Ethylbenzene was detected in only one soil sample collected at the site and in the synthetic precipitation leachate (SPLP) from a shallow soil sample collected near the former elevator and side-by-side degreasers. Isopropylbenzene was detected in one soil sample collected at the site.

Methylene chloride was detected at low concentrations in several ground-water samples collected in 2000. Methylene chloride was detected in the SPLP leachate of some soil samples collected in 2004.

Methylene chloride is used in laboratory for sample preparation and when detected in both environmental samples and quality assurance/quality control samples/blanks it may be considered a laboratory artifact. Methylene chloride was detected in several trip blanks, indicating that this compound was likely present in the laboratory. The detections of methylene chloride have been flagged with a "B" to indicate blank contamination.

Naphthalene was detected in one soil sample from beneath the floor slab in the area of the former compressor/cross-rod degreaser. Naphthalene was also detected in the leachate of several SPLP samples and is flagged with a "B" to indicate blank contamination due to the presence of naphthalene in a laboratory method blank.

Tetrachloroethene was detected in eight soil samples collected from the former North and South Settling Pond areas and in the synthetic precipitation leachate (SPLP) from a shallow soil sample collected near the former elevator and side-by-side degreasers. There is no record of tetrachloroethene having been used at the facility.

Toluene was detected sporadically in a few ground-water samples from locations downgradient of the paint storage area. Toluene was detected in three SPLP samples collected near the former degreasers. Toluene was only detected once in a seep sample. Toluene was used as paint thinner at the facility.

Trans-1,2-dichloroethe was detected in one water sample from Seep J.

Trichloroethene was detected in soil, ground-water, and seep water samples collected across the site. TCE was used as a solvent in the degreasers operated from 1966 to 1988 at the facility.

Vinyl chloride was detected two times in 2004 in water samples from Seep J. Vinyl chloride has not been detected in other seep samples or in ground-water or soil samples collected from across the site.

M & p-xylenes were detected in two soil samples collected from the former south settling pond area. Total xylenes was detected in a leachate sample collected from the area of the former elevator and side-by-side degreasers. Xylenes were used as paint thinner at the facility.

The standard list of USEPA Method 8260B VOCs was analyzed in soil and ground-water samples during the investigations conducted in 2000. During the 2003 CSR investigation and the Kd study, the VOC list was shortened to those VOCs that are HSRA regulated. The VOCs of primary interest, those detected most often, are: 1,1,1-trichloroethane, trichloroethene, 1,1-dichloroethene, cis-1,2-dichloroethene, 1,4-dioxane, and toluene.

2.7 OTHER POTENTIAL RESPONSIBLE PARTIES

The HSRA Rules require the name, address, and telephone number of any other person(s) who may be a responsible party for the Site, and a description of the type and amount of regulated substances each party may have contributed to a release. The phrase "responsible party" is defined only as "a person who has contributed or who is contributing to a release." That phrase, as defined in O.C.G.A. § 12-8-92 and implemented through the application of principles of liability in O.C.G.A. § 12-8-96.1, implies a number of legal principles, defenses, and related definitions. Based on this definition, the following parties are among those for whom some responsibility for the Site conditions may be found:

1. Thermo King Corporation
   1430 Highway 24 East
   Louisville Georgia 30434
   (478) 625-7241

2. Thermo King Corporation
   Corporate Headquarters
   314 West 90th Street
   Minneapolis, Minnesota 52420
   (952) 887-2200

3.0 CSR ASSESSMENT ACTIVITIES

CSR-related soil and ground-water assessment activities were conducted at the Thermo King site in 2000, 2003, 2004, and 2005. The assessment activities conducted in 2000 were conducted as a voluntary effort to determine if the subsurface had been impacted by VOCs detected previously during the removal of a degreaser. Data from subsequent assessment activities, conducted in 2003, 2004, and 2005 were used in the characterization and delineation of VOCs in soil, ground water, and surface water for the CSR and revised CSR. The assessment activities consisted of field investigation, laboratory analyses, and data evaluation. The samples were collected and handled as described in Appendix E and analyzed following USEPA SW-846 methodologies. Sampling procedures were in accordance with USEPA Region 4 EISOPQAM November 2001, including adherence to quality assurance/quality control (QA/QC) requirements.

3.1 SOIL INVESTIGATION

The purposes of the soil investigations were to obtain stratigraphic and lithologic data, obtain data on the origins of the VOC releases to soil, and to define the horizontal and vertical extent of VOCs in soil. Soil samples were collected using direct-push technology, rotosonic drilling techniques, and hand augers. Table 3.0 summarizes the soil samples collected and field screening data. Table 3.1 summarizes the soil boring data. Figures 3.0 and 3.1 present the soil sampling locations. The soil sampling procedures are described in Appendix E.

3.1.1 Direct-Push Technology Soil Borings

Prior to and during the CSR assessment investigations, twenty-four soil borings were advanced for soil sampling using direct-push technology (DPT). The soil borings included GW-E-1, GW-E-4, GW-E-13, GW-AOC1-1, GW-AOC2-1, GW-AOC3-1, GW-AOC3-2, GW-AOC8-1, GW-AOC8-2, GW-AOC9-1, GW-AOC9-2, GW-AOC10-1, SB-102, SB-104, SB-105, SB-106, SB-108, SB-109, SB-111, SB-112, SB-115, SB-116, SB-117, and SB-118. The soil borings were advanced from the ground surface to ground water or to the top of the stiff tan clay, or until probe refusal was encountered (Appendix B). Surface and subsurface soil samples were collected for screening purposes and laboratory analyses. Soil borings GW-E-1, GW-E-4, GW-E-13, GW-AOC1-1, GW-AOC2-1, GW-AOC3-1, GW-AOC3-2, GW-AOC8-1, GW-AOC8-2, GW-AOC9-1, GW-AOC9-2, GW-AOC10-1, SB-115, and SB-118 were

advanced to the top of the stiff tan clay and grab ground-water samples were collected from the water table and from the top of the stiff tan clay for laboratory analyses. Soil borings SB-102, SB-104, SB-105, SB-106, SB-108, SB-109, SB-111, SB-112, SB-116, and SB-117 were advanced to the first ground-water saturated soils. Soil samples were collected on a continuous basis from ground surface to boring termination. Generally, two to three soil samples were selected based on field screening results from each boring for laboratory analyses. The laboratory analyses samples included a sample from 0 to 2 feet, the soil sample with the highest VOC field screening result, and the deepest unsaturated soil sample. Appendix E provides a description of the soil sampling procedures using the direct-push technology. Upon completion of soil sampling these borings were abandoned by filling with cement-grout.

Soil borings STB-2 and STB-3 were advanced using DPT to define the stratigraphy on the east side of Manson Branch before installing monitoring wells. Soil samples were collected for lithologic description only in these particular borings and no soil samples were collected for chemical analysis. Upon completion, the soil borings were abandoned by filling with cement-grout. The data obtained from STB-2 and STB-3 was used to guide installation of monitoring wells MW-15 and MW-16 along the east side of Manson Branch. The boring logs are in Appendix B.

3.1.2 Rotosonic Technology Soil Borings

Soil borings SB-1 to SB-10, SB-101/MW-7, SB-103/MW-8, SB-107/MW-9, SB-110/MW-10, SB-113, SB-114, and STB-1 were drilled using rotosonic drilling techniqes Soil borings SB-1 to SB-10 were advanced to 11 feet below ground surface (bgs) in the areas of the former north and south settling ponds. The remaining rotosonic soil borings were advanced to the top of the stiff tan clay. Soil borings SB-101, SB-103, SB-107, and SB-110 were completed as monitoring wells MW-7, MW-8, MW-9, and MW-10, respectively and screen the Uppermost water-bearing zone. Soil borings SB-113 and SB-114 were advanced to the top of the stiff tan clay and soil samples were collected along with grab ground-water samples from the water table and from the top of the stiff tan clay for laboratory analyses (Appendix B). Soil samples were collected on a continuous basis from ground surface to boring termination. Generally, two to three soil samples were selected based on field screening results from each boring for laboratory analyses. The laboratory analyses samples included a sample from 0 to 2 feet, the soil sample with the highest VOC field screening result, and the deepest unsaturated soil sample. Appendix E provides a description of the soil sampling procedures using rotosonic drilling technology.

The soil borings for monitoring wells MW-1 to MW-6, MW-11 to MW-13, MW-15, MW-16, and MW-19 were drilled to the top of the stiff tan clay. These wells screen the brown sands of the Uppermost water-bearing zone. The soil borings for monitoring wells MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, and MW-23 were drilled through the soils comprising the Uppermost water-bearing zone, through the tan and blue clays; through the underlying 20 to 25-foot thick zone of blue-gray saturated clayey sands (the Intermediate water-bearing zone) and to the top of a second deeper blue-gray clay. These wells screen the blue-gray clayey sands of the Intermediate water-bearing zone. The boring for monitoring well MW-24 was drilled through the soils comprising the Uppermost and Intermediate water-bearing zones and terminated on a grayish-green silt at a depth of 147 feet bgs. Monitoring well MW-24 screens the grayish-green clayey silty sand of the Lower water-bearing zone. Soil samples from these borings were collected for lithologic description only. Soil boring STB-1 was drilled to a total depth of 177 feet bgs to obtain stratigraphic and lithologic data. The data obtained from STB-1 was used to guide the construction of monitoring wells MW-14, MW-17, MW-18, and MW-20 to MW-24. Upon completion of lithologic soil sampling, the borings were completed as monitoring wells. STB-1 was abandoned by filling with cement-grout.

3.1.3 Hand-auger Soil Borings

Soil borings HA-1 to HA-8 were advanced inside of the building using hand-augers. Prior to advancing the soil borings, the concrete floor slab was cored. The floor slab was immediately underlain by several inches to approximately four feet of gravel (Appendix B). The soil samples were collected for laboratory analyses from the shallowest non-gravel soils beneath the floor slab. The deepest sample was collected from approximately five feet below the floor slab. The purpose of these soil borings was to further delineate the horizontal extent of VOCs detected in shallow soils beneath the building floor slab. Hand-augers were used inside the building due to restricted physical access for mechanized drilling equipment. Appendix E provides a description of the soil sampling procedures using hand-augers. Upon completion of soil sampling the borings were filled with cement-grout.

3.1.4 Physical Analysis for Soil Samples

Three soil samples were collected for physical analyses to characterize the soils. Two soil samples were collected from stratigraphic boring STB-1 and one soil sample was collected from soil boring SB-113.

The soil samples were collected as undisturbed samples using a Shelby tube from the following depths and lithologies:

STB-1 (67-69.5 ft bgs)	Light Gray Silty Sand (Uppermost water-bearing zone)
STB-1 (72-73 ft bgs)	Light Gray Sandy Silty Clay (perching/confining zone)
SB-113 (43-45 ft bgs)	Light Gray to Light Tan Silty fine to medium Sand (Uppermost water-bearing zone)

The soil samples from STB-1 were analyzed for the following physical parameters:

Grain Size and Unified Soil Classification System	ASTM 422/D1140
Falling Head Permeability	ASTM D5084
Specific Gravity	ASTM D854-92/D4972
Water Retention/Porosity	ASTM D2325

The soil sample from SB-113 were analyzed for the following physical parameters

Grain Size and Unified Soil Classification System	ASTM 422/D1140
Falling Head Permeability	ASTM D5084
Specific Gravity	ASTM D854-92/D4972

The results of the physical analysis are summarized on Table 3.3 and the laboratory reports are provided in Appendix H.

3.1.5 Laboratory Chemical Analyses for Soils

Soil samples collected from the TK site were analyzed for VOCs, metals, and SPLP VOCs. These analysis procedures are discussed below.

3.1.5.1 Analysis for Volatile Organic Compounds

Soil samples were submitted for laboratory chemical analyses for VOCs using USEPA Method 5035/8260B. The standard list of VOCs constituents analyzed by USEPA Method 8260B was used to analyze soil samples during the investigations conducted in 2000. The VOC list was shortened to those VOCs that are HSRA regulated substances during the 2003 CSR assessment and 2005 Kd study. The shortened list of VOCs was also analyzed using USEPA Method 5035/8260B. Soil samples were collected in EnCore™ sample containers and shipped to the laboratory unpreserved. Per the USEPA Method 5035, the laboratory preserved the low concentration (<200 µg/kg) portion of the soil sample in

sodium bisulfide or de-ionized water and the high concentration (>200 µg/kg) portion in methanol. Following preservation, the soil samples were analyzed for VOCs using USEPA Method 8260B. An additional aliquot of soil was collected for each soil sample for moisture analysis. Soil results were reported on a dry weight basis. The soil samples were packaged with ice and shipped under chain-of-custody protocol to Severn Trent Laboratories (STL) in North Canton, Ohio for analyses. Appendices C, I, and J provide the laboratory reports for soil samples collected during previous investigations, CSR assessment, and the Kd study, respectively.

3.1.5.2 Analysis for Metals

The soil samples collected from borings SB-1 through SB-10 were submitted for chemical analyses for the eight Resource Conservation Recovery Act (RCRA) metals. Arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver were analyzed using USEPA methods 6010B and 7471A. Quanterra Labs in Tampa, Florida performed the analyses. Appendix C provides the laboratory reports for the soil samples metals results.

3.1.5.3 Analysis for SPLP for Volatile Organic Compounds

Sixteen soil samples were also analyzed for VOCs using the synthetic precipitation leaching procedure (SPLP) USEPA Method 1312 to obtain data on the leachability of VOCs in soils. The following soil samples were analyzed for both the VOCs USEPA Method 8260B and SPLP VOCs USEPA Method 1312/8260B:

SB-113 (0-2 ft)	HA-2 (0.4-2.1 ft)	SB-114 (22-24 ft)
HA-6 (1.2-2.0 ft)	Kd-3 (4 ft)	Kd-4 (2 ft)
Kd-4 (11 ft)	Kd-5 (3 ft)	Kd-7 (3 ft)
Kd-8 (9 ft)	Kd-9 (7 ft)	Kd-10 (3 ft)
Kd-10 (15 ft)	Kd-11 (4 ft)	Kd-11 (6 ft)
Kd-12 (10 ft)		

The laboratory reports for the SPLP results are provided in Appendix I for the HA and SB samples and Appendix J contains the lab reports for the Kd samples.

3.1.5.4 Other Chemical Analyses

Two soil samples STB-1 (67-69.5 ft bgs) and STB-1 (72-73 ft bgs) were also analyzed for pH and total organic carbon using USEPA Method 9045 and USEPA Method 9060, respectively. Appendix I provides the laboratory reports for the chemcial analyses of soil samples collected during the CSR assessment.

3.1.6 Soil to Water Partition Study

On April 12 and 13, 2005, 12 direct-push technology soil borings (Kd-1 through Kd-12) were advanced to collect soil samples for analyses for total and SPLP volatile organic compounds. These data were used to develop site-specific soil to water partition values (Kd coefficients). Samples were collected from previously identified sources area locations (former degreaser locations) where chlorinated solvents had been used or stored (Figure 3.1). Borings were extended to depths of 12 to 20 feet; boring logs are provided in Appendix B. Soils were recovered in four-foot acetate sleeves and were screened in the field using a PID (Mini-RAE 2000). Appendix E describes the soil sampling procedures. Soil samples were selected for laboratory analyses to represent natural soils having a range of PID responses and anticipated total VOC concentrations. A total of 22 soil samples were collected for laboratory analysis of total volatile organic compounds using USEPA method 8260B/5035. Based on the analytical results of the 22 soil samples, 12 soil samples with the highest trichloroethene and 1,1,1-trichloroethane concentrations were selected for further analysis using the SPLP methodology to obtain data on the leachability of volatile organic compounds in soils. The total and SPLP data were used to calculate the Kd coefficients.

3.2 GROUND-WATER INVESTIGATION

The ground-water investigation at the site consisted of an evaluation of the hydrogeologic setting, an assessment of releases to ground water and ground-water quality, measurements of hydraulic gradients, and an estimation of hydraulic conductivity. The initial assessment in 2000 included evaluation of flow direction and ground-water quality. The CSR assessment evaluated hydrogeologic setting, hydraulic conductivity, and delineation of VOCs in ground water. The assessment of ground-water quality was conducted using borings for ground-water sampling and the installation and sampling of monitoring wells. The activities conducted for the ground-water investigation are described in the following sections.

3.2.1 Ground-Water Borings

Several borings were advanced to the top of the stiff tan clay to collect ground-water samples for laboratory analyses. The borings were advanced using direct-push technology and rotosonic drilling techniques. The procedures for advancing the ground-water borings and the sampling of ground water in the borings are provided in Appendix E. Boring records for the borings are provided in Appendix B. The ground-water sampling locations are presented on Figure 3.0. Ground-water sampling data and monitoring well construction data are summarized on Tables 3.0 and 3.2.

3.2.1.1 Direct-Push Technology Borings for Ground-Water Sampling

Borings for ground-water sampling at GW-E-1 through GW-E-19, GW-AOC1-1, GW-AOC2-1, GW-AOC3-1, GW-AOC3-2, GW-AOC8-1, GW-AOC8-2, GW-AOC9-1, GW-AOC9-2, GW-AOC10-1, SB-115, and SB-118 were advanced using a direct-push technology rig. The borings were advanced from the ground surface through the soils to the Uppermost water-bearing zone and ground-water samples were collected as described in Appendix E. Usually two to three ground-water samples were collected per borehole; at the water table, at an intermediate depth between the water table and top of the stiff tan clay, and at the top of the stiff tan clay. The DPT water sampler consisted of a stainless-steel screen with an outer casing that is retractable to expose the screen at the desired sampling depth. Upon reaching the desired sampling depth, the screen was exposed allowing ground water to flow into the sampler from the exposed discrete zone. The ground-water samples were then collected using a peristaltic pump and dedicated tubing. The tubing was first lowered through the drive rods into the sampling screen. Prior to collecting the ground-water sample, the sample interval was purged using the peristaltic pump to reduce the amount of sediment in the subsequent ground-water sample. Ground-water samples obtained for VOC analysis were collected by drawing a column of water into the length of tubing using the peristaltic pump. The peristaltic pump was stopped and the tubing pulled from the boring with the water retained in the tubing. The pump was then turned on briefly to release the suction in the tube and allow the column of water to drain from the tubing into the sample container without passing through the pump's roller mechanism. The pH, specific conductivity, and temperature were measured and the readings recorded for the ground-water samples collected. After the ground-water sample was collected from the boring, the water sampler was removed from the borehole and the borehole was backfilled with a cement-bentonite grout tremied from the bottom of the borehole to the ground surface. The ground-water samples were

packaged with ice and shipped under chain-of-custody protocol to Severn Trent Laboratories in North Canton, Ohio for analysis for VOCs using USEPA Method 8260B.

3.2.1.2 Rotosonic Borings

Ground-water borings SB-113 and SB-114 were advanced using rotosonic drilling techniques. The borings were advanced from the ground surface through the soils to the Uppermost water-bearing zone and ground-water samples were collected as described in Appendix E. Usually two ground-water samples were collected per borehole; at the water table and at the top of the stiff tan clay. The ground-water samples were collected using the Isoflow™ System. The Isoflow™ System consists of two packers positioned above and below a submersible pump and attached to rods. Discharge tubing is treaded through the packer assembly. Rotosonic drilling techniques were used to advance the boring to the ground-water sampling depth. The drilling casings were retracted to a few feet above the sampling depth and the Isoflow™ System was inserted through the casings and down to the sampling interval, the packers were inflated and the pump was used to purge the interval. After purging, a ground-water sample was collected and placed in laboratory-supplied containers. The samples were packaged on ice and maintained under chain-of-custody protocol until delivery to the laboratory. The ground-water samples were analyzed for VOCs using USEPA Method 8260B at Severn Trent Laboratories in North Canton, Ohio. Upon completion of ground-water sampling the borings were filled with a cement-bentonite grout using a tremie pipe.

3.2.2 Monitoring Well Installation

Monitoring wells were installed on the Thermo King Site to assess ground-water quality, delineate the extent of contamination, and evaluate ground-water flow direction and gradients. Appendix B provides the boring records and monitoring well construction data. Appendix E provides the procedures for the monitoring well installation and well development data. Table 3.2 summarizes the monitoring well construction data and Figure 3.0 presents the monitoring well locations. Monitoring wells were installed to screen the Uppermost water-bearing zone overlying the stiff tan clay (top of the Twiggs Clay) and to screen the deeper Intermediate water-bearing zone beneath the stiff tan and blue-gray clays. One monitoring well was installed to screen the Lower water-bearing zone. Three types of monitoring wells were installed depending upon which water-bearing zone was screened. These wells are described below.

3.2.2.1 Single-Cased Monitoring Wells Installation

Monitoring wells MW-1 through MW-13, MW-15, MW-16, MW-17, MW-18, and MW-19 were installed as single-cased monitoring wells. Monitoring wells MW-1 through MW-13, and MW-19 were installed to the top of the stiff tan clay (top of the Twiggs Clay) and monitor the Uppermost water-bearing zone. Wells MW-15 and MW-16 were installed in alluvial deposits on the east side of Manson Branch. Monitoring wells MW-1 through MW-13, and MW-19 were drilled using rotosonic drilling techniques. The monitoring well borings were advanced from the ground surface to the top of the Twiggs Clay. While the rotosonic overshot casing was still in the borehole, the well casing was inserted to the bottom of the borehole. The monitoring wells were constructed of two-inch I.D. flush joint, threaded Schedule 40 PVC pipe with five to ten feet of 0.010-inch machine slotted well screen. As the overshot casing was slowly retracted, clean 20/30-gradation silica filter sand was placed into the annulus between the well screen and the borehole using a tremie pipe. The sand filter pack was installed to approximately two to three feet above the top of the well screen and capped with a bentonite-pellet seal approximately two to three feet thick. The bentonite-pellet seal was hydrated with potable water before the installation of the cement-bentonite grout seal. Placement of the filter sand and bentonite-pellet seal was confirmed by taped measurements. The annular space from the top of the bentonite-pellet seal to within approximately one foot of the ground surface was filled with a cement-bentonite grout using a tremie pipe. A locking, water-tight cap was installed on the riser pipe and an above-grade lockable protective cover or a manhole protective cover, depending upon location, was installed over the well. A concrete pad measuring approximately 3 feet by 3 feet by 4 inches was constructed at ground surface around each well.

Monitoring wells MW-15, MW-16, MW-17, and MW-18 were installed on the east side of Manson Branch (Figure 3.0). Shallow monitoring wells MW-15 and MW-16 screen the alluvium associated with Manson Branch (the Uppermost water-bearing zone present on the west side of Manson Branch was not present adjacent to the east side of Manson Branch, having been removed by erosion). A track-mounted direct-push rig equipped with hollow-stem augers was used to drill and install monitoring wells MW-15 and MW-16. Because of the shallow depth to the ground water in the alluvium, five feet of 0.01-inch slotted well screen was installed in both of these wells. Wells MW-15 and W-16 were constructed with sand pack, bentonite-pellet seal, cement-bentonite grout, cover and pad as previously described (Appendix B).

Deeper monitoring wells MW-17 and MW-18 were installed to the top of the second blue-gray clay and screen the blue-gray clayey silty sand of the Intermediate water-bearing zone. The single-cased construction was used in wells MW-17 and MW-18 because VOCs were not detected in adjacent monitoring wells MW-15 and MW-16. A track-mounted drilling rig equipped with hollow-stem augers and mud-rotary equipment was used to drill wells MW-17 and MW-18. Monitoring well MW-17 was drilled using hollow-stem augers. Due to flowing sands filling the interior of the augers, monitoring well MW-18 was drilled using mud-rotary to keep the borehole open. Both monitoring wells were constructed with 15 feet of 0.010-inch slotted well screen and both wells were constructed with sand pack, bentonite-pellet seal, cement-bentonite grout, cover and pad as previously described.

3.2.2.2 Double-Cased Monitoring Wells Installation

Double-cased monitoring wells (MW-14, MW-20 through MW-23) were constructed to minimize the potential for cross-contamination between the Uppermost water-bearing zone , perched above the Twiggs Clay, and the underlying Intermediate water-bearing zone. Using rotosonic drilling technology the well installation was initiated by drilling a 10-inch diameter boring to approximately five feet into the uppermost stiff tan clay. An outer Schedule 40 PVC casing, 6-inches in diameter, was set approximately five feet into the tan clay and pressure-grouted into the clay. The casing was allowed to set for a minimum of 24 hours prior to further advancing the boring. After the grout set, any remaining grout inside the 6-inch casing was reamed out and the casing flushed with potable water. The boring was then advanced deeper using rotosonic drilling methods and a drilling-casing diameter of just under 6 inches. An inner Schedule 40 PVC well casing, 2-inches in diameter, was installed from the ground surface down to the well termination depth on the top of the second blue-gray clay. The wells were constructed with 15 feet of 0.010-inch machine slotted Schedule 40 PVC well screen. While the drill string was still in the borehole, clean silica filter sand was placed into the annulus between the well screen and the borehole wall using a tremie pipe. The sand filter pack was installed to approximately two to three feet above the top of the well screen and was capped with a bentonite-pellet seal approximately two to three feet thick. Placement of the filter sand and bentonite-pellet seal was confirmed by taped measurements. Clean potable water was used to hydrate the bentonite-pellet seal. Cement-bentonite grout was installed in the annular space from the top of the bentonite-pellet seal to within approximately one foot of the ground surface using a tremie pipe. The top of the bentonite-pellet seal and the bottom of the grout seal were installed below the bottom of the uppermost blue-gray clay. A locking, water-tight cap was installed on the riser pipe and either an above-grade lockable protective cover or a manhole protective cover,

depending upon location, was installed over the well with a concrete pad measuring three feet by three feet by four inches was constructed at ground surface around each well.

3.2.2.3 Triple-Cased Monitoring Well

Triple-cased monitoring well MW-24 was constructed to minimize the potential for cross-contamination between the Uppermost and Intermediate water-bearing zones and the deeper Lower water-bearing zone. The purpose of well MW-24 was to delineate the vertical extent of VOCs detected in ground water in the Uppermost and Intermediate water-bearing zones. The Georgia EPD reviewed the proposed well construction and location submitted in a letter dated May 14, 2004. Georgia EPD requested that the deep vertical extent well be located 150 feet west southwest of well MW-14 (Figure 3.0). The deep vertical extent well was drilled and installed using rotosonic and mud-rotary drilling technology. Rotosonic drilling techniques was used to the drill pilot boring to obtain lithology and stratigraphic data used to determine the depths the wells casings. Mud-rotary drilling techniques were used to reamed the borings to specified diameters. The well installation was initiated by drilling a 6-inch diameter pilot boring to approximately five feet into the uppermost stiff tan clay. The boring was reamed to 14-inches in diameter using mud-rotary techniques. The first outer Schedule 40 PVC casing, 10-inches in diameter, was set approximately five feet into the uppermost stiff tan clay and pressure-grouted into the clay. The 10-inch outer casing was installed to seal off the Uppermost water-bearing zone and to minimize carrying down VOCs present in the Uppermost zone. The casing was allowed to set for a minimum of 24 hours prior to further advancing the boring.

After the grout set, any remaining grout inside the 10-inch casing was reamed out and the casing was flushed with potable water. A pilot boring was then advanced deeper through the Intermediate water-bearing zone using dual-casing rotosonic drilling methods. The boring was reamed to just under 10-inches in diameter using mud-rotary techniques. A second outer Schedule 40 PVC casing, 6-inches in diameter, was set approximately ten feet below the Intermediate water-bearing zone and pressure-grouted into a gray clay. The 6-inch outer casing was installed to seal off the Intermediate water-bearing zone and to minimize carrying down any VOCs that may be present in the Intermediate zone. The casing was allowed to set for more than 24 hours prior to further advancing the boring.

After the grout set, any remaining grout inside the 6-inch casing was reamed out and the casing was flushed with potable water. The pilot boring was then advanced deeper using six-inch outside diameter

dual-casing rotosonic drilling methods to drill the boring to a depth of 147 feet bgs. A saturated grayish-green clayey silty fine to coarse sand was encountered from 137 to 146 feet. The borehole was terminated in a dry grayish-green sandy silt was encountered from 146 to 147 feet bgs. Ten feet of 0.010-inch machine slotted Schedule 40 PVC well screen, two-inches in diameter, was threaded to two-inch diameter riser pipe and inserted into the borehole to 147 feet.

To confirm that the gray-green sand encountered from 137 to 146 feet was a water producing zone and to determine if VOCs were present prior to final completion of well construction, the well was partially constructed with a sand pack and bentonite seal, so that ground-water levels could be measured and ground-water samples collected. While the rotosonic casing was still in the borehole, clean silica filter sand was placed into the annulus between the well screen and the borehole wall using a tremie pipe. The sand filter pack was installed to approximately two to three feet above the top of the well screen and was capped with a bentonite-pellet seal approximately four feet thick. Clean potable water was used to hydrate the bentonite-pellet seal. Placement of the filter sand and bentonite-pellet seal was confirmed by taped measurements. The monitoring well was then developed using a submersible pump. While pumping, water levels were measured to evaluate if the grayish-green clayey silty fine to coarse sand (Lower water-bearing zone) was a consistent water-bearing zone. At a pumping rate of approximately one gallon per minute, water levels initially dropped, but did not drop to the depth of the grayish-green clayey sand. Upon cessation of pumping, the water levels returned to the static water level measured prior to pumping. Based on these water level data, it was determined the grayish-green clayey sand was a consistent water-bearing zone usable for ground-water quality monitoring.

The well was allowed to site for one day prior to the well being purged and sampled for VOCs. Ground-water quality samples (an original and a duplicate) were collected from monitoring well MW-24 on October 12, 2004. VOCs were not detected in the October 12, 2004 ground-water sample. Based on the absence of VOCs, a cement-bentonite grout was placed in the annular space from the top of the bentonite-pellet seal to within approximately one foot of the ground surface using a tremie pipe. The top of the bentonite-pellet seal and the bottom of the grout seal were installed within a dark grayish-green very silty clay. A locking, water-tight cap was installed on the riser pipe. A manhole protective cover was installed over the riser pipe and a concrete pad measuring three feet by three feet by four inches was constructed at ground surface around the protective cover. Monitoring well MW-24 was sampled again on October 28, 2004. VOCs were not detected in this sample.

3.2.2.4 Well Development

Each newly installed monitoring well was developed to remove excess sediment, recover water lost during drilling, clear formational pathways which may have been blocked during drilling, and draw representative ground water into the well screen. Monitoring wells were developed in accordance with guidance set forth in USEPA Region 4 EISOPQAM (November 2001) using the pump and surge technique. The development process was accomplished by causing the ground water within the well to move vigorously through the screen while removing the water and sediment from the well. A submersible pump was raised and lowered through the well screen section producing an agitation action.

Development continued until a minimum of five borehole volumes had been removed, less than 0.1 foot of sediment remained at the bottom of the monitoring well, and pH, specific conductance, temperature, and turbidity measurements stabilized. Field measurements were conducted with a Horiba™ multi-meter or with a Hydac/Hanna™ meter and turbidity meter. The meters were calibrated on a daily basis according to manufacturer's instructions. Water quality measurements were made after the removal of each borehole volume and recorded on field forms. Well development data are included in Appendix E.

3.2.3 Ground-Water Sampling

Ground-water samples were collected from monitoring wells MW-1 through MW-13 in February 2003, from wells MW-14 to MW-20 in April, May and June 2003 and from wells MW-21 to MW-23 in September 2003 and analyzed for VOCs. Ground-water samples were also collected in May and October 2004 from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-8, MW-10, MW14, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22, and MW-23 and analyzed for VOCs. Monitoring well MW-24 was sampled twice in October 2004 and analyzed for VOCs.

During the February 2000 assessment activities, some soil samples were analyzed for arsenic, barium, cadmium, chromium, lead, mercury, silver, and selenium. Arsenic, barium, chromium, lead, mercury, and selenium were detected above detection limits, but below the HSRA NC concentrations and below metals background concentrations in regional soils. Cadmium and silver were not detected. Because metals were not detected above the HSRA NC concentrations or above regional background concentrations in soils, ground-water samples were not analyzed for these metals. In their March 11, 2004 letter, the Georgia EPD commented that metals could be leached into the ground water and

requested that ground-water samples be collected near source areas and be analyzed for total metals. The Georgia EPD agreed in the May 4, 2004 meeting that upgradient monitoring well MW-1, and wells MW-3, MW-4 (downgradient of the degreasers and aboveground storage tank area), wells MW-5 and MW-19 (downgradient of South Settling Pond), and MW-10 (downgradient of North Settling Pond) would be sufficient for sampling and analysis for metals in ground water. The Georgia EPD also requested that the metals analysis list be based on the metals that have been used at the Thermo King facility instead of the eight RCRA metals previously analyzed in soil samples. Thermo King proposed to analyzed the ground-water samples from the above six monitoring wells for those metals listed on the facility's Industrial Pretreatment Permit (cadmium, chromium, copper, lead, nickel, silver, and zinc). The six monitoring wells were sampled for the designated seven metals in May and October 2004.

The water quality parameters for the monitoring well sampling are summarized on Table 3.0 and field data are provided in Appendix E. Ground-water samples were also collected from municipal and private water-supply wells in May 2000. The locations and sampling procedures for the water-supply well sampling and analyses are presented in Appendix D and are briefly described below. The procedures used to collect the ground-water quality samples are described below and are consistent with USEPA Region 4 EISOPQAM (November 2001).

Prior to purging and sampling, the depth to ground water and total depth of the well were measured with an electronic water level indicator. The water-level meter was washed with an Alconox™ and water mixture and rinsed with potable water prior to each use. The depth to ground water was measured from a marked survey reference point at the top of casing to the ground-water surface in the well. Measurements were recorded to the nearest 0.01-foot. The depth to the ground water was subtracted from the surveyed elevation of the top of well casing reference point to determine the ground-water elevation. The total well depth was measured from the survey reference point to the bottom of the well and compared with the well construction record. The thickness of sediment in the well casing was measured and recorded.

3.2.3.1 Well Purging

The monitoring wells were purged prior to sampling to provide fresh formation water for sampling. Purging was conducted using the low flow/low stress purging method. The low flow/low stress method consists of removing three well volumes of water from a monitoring well at a rate that does not exceed the recharge rate of the monitoring well. USEPA purging procedure recommends a flow rate of about

100 milliliters (mls) +/- 20 mls per minute or pumping at a rate where the water level in the well does not fluctuate +/- 0.3 feet. The monitoring wells were purged using a decontaminated submersible pump and either dedicated polyethylene or Teflon-lined tubing. Purging was conducted until a minimum of three well volumes had been removed, less than 0.1 foot of sediment remained at the bottom of the monitoring well, and the pH, specific conductance, temperature, and turbidity measurements stabilized and the turbidity was less than 10 nephelometric turbidity units (NTUs).

The field water quality parameters (i.e., temperature, pH, specific conductance and turbidity) were measured with a Horiba™ multi-meter or with a Hydac/Hanna™ meter and turbidity meter. The meters were calibrated on a daily basis according to the manufacturer's instructions. The physical appearance of the ground water removed during purging was also recorded. Purging was terminated when the water quality parameters stabilized. Stabilization of parameters was defined as a variation in pH of less than 0.2 pH units between two consecutive readings, a variation of temperature less than 0.5 degrees between two consecutive readings, and less than 10 percent variation of specific conductance between two consecutive readings.

3.2.3.2 Ground-Water Sample Collection

Two sampling procedures were used to collect ground-water samples from the monitoring wells at the TK site. The sampling procedures were conducted in general accordance with USEPA Region 4 EISOPQAM (November 2001). The first sampling procedure was to purge the monitoring well with a submersible pump or peristaltic pump and clean polyethylene tubing using low flow/low stress purge methodology and then collect the ground-water sample with a disposable Teflon bailer and clean nylon rope. This method was used to collect ground-water samples in 2000 through 2003 for VOCs and in 2004 for metals. The second sampling procedure used passive diffusion bags to collect ground-water samples in 2004 for VOCs. These sampling procedures are described in the following paragraphs.

Ground-water samples were collected from TK site monitoring wells in 2000 through 2004 using disposable Teflon bailers and clean nylon rope following purging. The bailers were used to collect ground-water samples for VOC analyses in 2000 through 2003 and for metals analyses in 2004. Prior to purging and sampling, plastic sheeting was placed on the ground surface around each well. Sample collection was initiated after three well volumes had been purged from the well using a submersible pump or a peristaltic pump and low-flow purging techniques, and the pH, specific conductance, temperature and

turbidity readings had stabilized. A clean disposal Teflon bailer attached to clean nylon rope was lowered into the well to collect the ground water immediately following purging. The bailer was removed from the well and the water decanted into the sample containers. Ground-water samples were not collected using the submersible or peristaltic pumps. A new pair of gloves was used during the purging and sampling of each well. Sample containers and preservatives were supplied by the laboratory (Appendix E). Field personnel identified the location of the sample collected; documented the date and time the sample was obtained; the type of sample; and type of preservative. This information was documented on a field sampling form. This same information was also placed on the sample identification label and affixed to the sample container. Sample labels were filled out with indelible ink. The samples were individually placed in water-tight zip-lock bags and packed in a cooler with ice and shipped to the laboratory under chain-of-custody protocol.

The second ground-water sampling procedure used passive diffusion bag samplers (PDBSs). The USEPA has approved the use of passive diffusion bag samplers (PDBS) for the collection of ground-water samples for VOC analyses (Vroblesky 2001 and ITRC 2004) A copy of the guidance manual for using passive diffusion bag samplers is provided in Appendix E. The PDBS work by VOCs permeating a cylindrical membrane bag constructed of a low-density polyethylene containing deionized water suspended inside a well on a weighted line. The diffusion of VOCs in and out of the membrane bag continues until equilibrium is reached. The time required to reach equilibrium depends upon the rate of ground-water flow within the well, water temperature, and the VOCs of interest.

PDB samplers were installed in 15 of the 24 monitoring wells on the TK site for the sampling performed in 2004. The PDBS were installed in the wells about 2 months prior to the scheduled sampling event and remained in the well until samples were collected. The PDBS assembly consists of a clean nylon rope tether attached to the underside of the water-tight well cap and suspended inside the well casing with a stainless steel weight at the bottom. The tethers were custom-made for the total depth and screen interval of each well and tagged with a metal tag with the well number. The membrane bag is attached to the tether at pre-determined depths within the slotted section of the well screen. The membrane bags were filled with de-ionized reagent-grade water (ASTM Type II water) and immediately attached to the tether and lowered into each well. Initially, one PDB per five feet of well screen was installed in each well to determine if there was stratification of VOCs in the monitoring wells. Wells with 15 feet of well screen were initially equipped with three PDBSs, wells with 10 feet of screen were equipped with two PDBSs and wells with 5 feet of screen were equipped with one PDBS. The initial sampling and analyses showed

that the same VOCs at very similar concentrations were detected in each of the multiple PDBs installed in each well; i.e., there were no indications of significant stratification of VOC constituents or concentrations within the screened interval (Table 4.5). Based on the results of the initial sampling, one passive diffusion bag was installed in each well within the top five feet of the well screen in subsequent sampling events.

During the sampling events, the tethers and PDBs were removed from each well at the time of sampling. The PDBS was pierced with a disposable sampling tube dedicated to each well and each PDB. The water was drained from the PDB into pre-preserved VOC sample containers. Each PDBS is an individual sample, i.e., where three PDBS were installed in one well, three VOC water samples are collected from the well. The water samples were handled and shipped under chain-of-custody protocol to the analyzing laboratory. The water samples were analyzed for the site-specific VOCs using USEPA Method 8260B. The used PDB was properly disposed of and the tether was stored in the well for use during the next sampling event.

3.2.3.3 Water-Supply Well Sampling

Water samples were collected from municipal and private water-supply wells in May 2000 in response to the detection of VOCs in the ground-water samples obtained from Thermo King's on-site downgradient monitoring well (MW-5) in February 2000. The locations of the wells and procedures used to obtain water samples are presented in Appendix D in the Report of Water Well and Surface Water Sampling and Analysis, dated August 18, 2000. The water-supply well sampling is briefly described below. A water-well survey was performed within an approximate three miles radius of the Thermo King facility. The survey was conducted by reviewing the Georgia EPD and the United States Geological Survey (USGS) well databases and performing an automobile reconnaissance of the area. The well survey identified six municipal water-supply wells owned and operated by the City of Louisville and 13 private water-supply wells. The environmental technician with the Jefferson County Health Department was contacted to confirm which residences were supplied water from wells. The city manager for the City of Louisville was also contacted to obtain information on the City of Louisville municipal wells and to confirm which residences were supplied water by the City of Louisville and/or Jefferson County. Nine private water-supply wells were located within one to two miles to the east and southeast of the Thermo King facility.

Water samples were collected from the six City of Louisville municipal wells and from the nine closest private water-supply wells. Prior to collecting water samples, the well owner was interviewed about the depth of the well, how the well was installed, and when the well was installed. Verbal permission to collect a water sample was also granted during the interview. Water samples from the water-supply wells were collected in triplicate from the six municipal and nine private water-supply wells on May 2 – 4, 2000 (Appendix D). The water samples were shipped under chain-of-custody protocol to Lancaster Laboratories in Lancaster, Pennsylvania; Severn Trent Laboratories in Savannah, Georgia; and Severn Trent Laboratories in North Canton, Ohio. The water samples were analyzed for site-specific VOCs using USEPA Method 8260B.

The water samples collected from the City of Louisville municipal wells were obtained from a tap at the well head prior to the water entering the aeration unit. The tap was turned on to full and the water was allowed to run a few minutes before collecting a water sample. The flow was then turned down so that the volume of water was reduced and water samples were collected in laboratory-supplied containers. Water samples were collected from the nine private residences from either a kitchen sink tap or an outside tap. When a sample was collected from the kitchen tap, the aerator was temporarily removed from the tap for the collection of the sample. Prior to collecting the water sample, the tap was turned on to full and the water was allowed to run a few minutes before collecting a water sample. The tap was then turned down so that the volume of water was reduced. Following the collection of water samples from the wells, an additional water sample was collected for the measurement of pH, specific conductance, turbidity, and temperature in the field. The water samples were placed in sample coolers with ice immediately following collection. All of the water samples were maintained under chain-of-custody protocol during the sampling and shipping to the analyzing laboratories. No VOCs were detected in the six municipal wells or in the nine private water-supply wells samples (Appendix D).

3.2.4 Laboratory Chemical Analyses for Water Samples

Water samples from borings, monitoring wells, seeps, and Manson Branch were submitted for laboratory analyses for VOCs using USEPA Method 8260B. The standard list of VOC constituents analyzed by USEPA Method 8260B were analyzed in ground-water samples during the investigations conducted in 2000. During the CSR assessments the VOC list was shortened to those VOCs that are HSRA regulated. The shortened list of VOCs was also analyzed using USEPA Method 8260B. Appendices C and I

provide the laboratory reports for samples analyzed during the 2000 investigations and the CSR assessments, respectively.

In 2004, Georgia EPD requested ground-water samples from select monitoring wells be analyzed for those metals that have been used at the Thermo King facility. The eight RCRA metals were analyzed in soil samples from the former settling ponds in 2000, as discussed in Section 2.4.2. Thermo King identified cadmium, chromium, copper, lead, nickel, silver, and zinc as metals used previously or currently at the facility. Wells MW-1, MW-3, MW-4, MW-5, MW-10, and MW-19 were sampled in May 2004 and analyzed for total and dissolved cadmium, chromium, copper, lead, nickel, silver, and zinc using USEPA Method 6010B. Dissolved metals were not detected in the ground-water samples collected in May 2004. In October 2004, these six wells were sampled again and analyzed for total cadmium, chromium, copper, lead, nickel, silver, and zinc using USEPA Method 6010B (Appendix I).

Selected samples of ground water from the Uppermost and Intermediate water-bearing zones and from Manson Branch were analyzed for geochemical profiling. Laboratory reports are provided in Appendix G. The geochemical parameters included the following constituents and analytical methods:

Calcium	USEPA Method 6010B
Potassium	USEPA Method 6010B
Magnesium	USEPA Method 6010B
Sodium	USEPA Method 6010B
Chloride	USEPA Method 300.0A
Sulfate	USEPA Method 300.0A
Total Alkalinity	USEPA Method 310.1

3.2.5 In-situ Hydraulic Conductivity Testing

In-situ hydraulic conductivity tests were performed in monitoring wells MW-1, MW-4, MW-10, MW-15, and MW-14 to estimate the rate at which ground-water flows through a water-bearing zone. Monitoring wells MW-1, MW-4, and MW-10 are screened in the Uppermost water-bearing zone. Monitoring well MW-15 is screened in alluvial soils. Monitoring well MW-14 is screened in the Intermediate-water-bearing zone. The tests were performed using the slug test method which estimates the hydraulic conductivity by measuring the change in water level with time in a well after a certain volume “slug” is rapidly inserted or removed from the well. A solid PVC pipe was quickly inserted into or removed from the monitoring well to create a rapid localized change in water level. An electronic pressure transducer and data logger were used to measure and record the changes in water levels with

time when the "slug" was inserted or removed from the well. The changes in water levels were analyzed using the Bouwer and Rice equations (Bouwer and Rice, 1986 and 1989) to calculate the hydraulic conductivity. The water level measurement data and graphs are provided in Appendix F.

3.2.6 Geochemical Profile Study of Ground Water

In July 2003, a geochemical study was conducted to obtain data to assist in evaluating if ground water and any associated contaminants in the Uppermost water-bearing zone were moving vertically down into the underlying Intermediate water-bearing zone at the monitoring well pair MW-14/MW-19 location (Figure 3.0). VOCs had been detected in monitoring well MW-14 (screened in the deeper, Intermediate zone) and in monitoring well MW-19 (screened in the Uppermost zone). Data for the geochemical study was collected by sampling and analyzing ground water from selected monitoring wells screened in the Uppermost and Intermediate water-bearing zones and in the surface water of Manson Branch. Ground-water samples were collected from monitoring wells MW-5 (Uppermost), MW-14 (Intermediate), MW-17 (Intermediate), MW-18 (Intermediate), MW-19 (Uppermost), and MW-20 (Intermediate) along with a surface water sample from Manson Branch. The monitoring wells were purged using the low flow/low stress purging method with a submersible pump and dedicated polyethylene tubing. Three well volumes were purged from the monitoring wells using the purging method described in Section 3.2.3 of this report. Upon completion of purging, a 0.45 micron in-line filter was attached to the discharge line from the pump. Ground-water samples were collected in laboratory-supplied sample containers from the discharge line after filtration. The samples were placed on ice and shipped under chain-of-custody protocol to Severn Trent Laboratories in North Canton, Ohio for analyses. The filtered ground water samples were analyzed for calcium, potassium, magnesium, and sodium using USEPA Method 6010B, for chloride and sulfate using USEPA Method 300.0A and for total alkalinity using USEPA Method 310.1. The results of the geochemical profile are discussed in Section 4.2.3 of this report and laboratory reports are provided in Appendix G.

3.2.7 Dye Trace Study

A localized dye trace study was performed in September 2003 to better understand if or how VOCs may have migrated to the deeper Intermediate water-bearing zone in the area of well MW-14. The dye trace study was conducted to qualitatively evaluate the possibility of a vertical hydraulic connection between the Uppermost and Intermediate water-bearing zones in the area of monitoring wells MW-14 and

MW-19. Prior to initiating the dye trace study, a temporary well (DYE-1) was installed within three feet of monitoring well MW-14 and to the top of the tan clay to inject fluorescent water tracing dye (Rhodamine WT) into the Uppermost water-bearing zone. Monitoring well MW-19 which screens the Uppermost water-bearing zone is located approximately 10 feet to the north of well MW-14 and was considered to be too far away from well MW-14 to be useful for dye injection. Temporary well DYE-1 was installed using direct-push technology. The temporary well was constructed of 1-inch ID Schedule 40 PVC pipe with 5 feet of pre-packed sand filter pack. Formation sand was allowed to collapse around the well to the vadose zone and the remaining annular space in the vadose zone was filled with bentonite pellets and hydrated.

The dye trace was initiated by calibrating the submersible fluorometer per manufacturer's instructions. Next, background fluorescence readings were measured in monitoring wells MW-14, MW-18, MW-19, MW-20, a seep east of well MW-14, and surface water from near the stream gauge on Manson Branch. The monitoring wells were not purged prior to collection of the background fluorescence readings. These readings were the baseline conditions prior to addition of the dye. The submersible fluorometer was rinsed with distilled water between each location. A dye collection device (dye bug) constructed of activated carbon contained within a fiberglass wire mesh pouch was left suspended in monitoring wells MW-14, MW-19, MW-20 and in the seep. Approximately 0.25 ounce of 20% liquid Rhodamine WT dye was mixed into one gallon of potable water and poured into the temporary well DYE-1. Twenty gallons of potable water was also poured into the well DYE-1 to flush the dye down the well casing. The addition of dye was performed by two individuals using the clean hands/dirty hands methodology so as to prevent cross-contamination with the dye between wells. A water sample from well DYE-1 indicated the ground water in the well was red in color. The submersible fluorometer was placed in monitoring well MW-14 and connected to a data logging device to record fluorometer readings. A dye bug was also placed in well MW-14. The data logger was set to record readings on an hourly basis for one month. The dye bugs were recovered at a later date in the year and eluted to determine if dye was present. The dye bug were eluted with 30 milliters of an eluting solution of 38% strong ammonium hydroxide, 43% 1-propanol, and 19% distilled water (all percentages by volume). A visible red or pink color in the elution rinse solution would be a positive indication of dye identification. The results of the dye trace study are discussed in Section 4.2.3 of this report.

3.3 SURFACE WATER INVESTIGATION

The surface water in seeps and Manson Branch on the Thermo King site were sampled and analyzed in 2000 and again during the CSR assessment in 2003 and 2004. The surface water was investigated because the Uppermost water-bearing zone discharges to the seeps located along the slope above the west bank of Manson Branch. The results and locations of the samples collected in 2000 are presented in the Report of Water Well and Surface Water Sampling and Analysis, dated August 18, 2000 and included in Appendix D. The results of the surface water samples collected during the CSR assessments conducted in 2003-2004 are provided in Appendix I.

Initially in May 2000, surface water samples were collected from the main channel of Manson Branch (Manson Branch #1) and a seep (Manson Branch #2) located up on the western slope. The May 2000 surface water samples were collected in triplicate and shipped to three laboratories (Lancaster Laboratories in Lancaster, Pennsylvania; Severn Trent Laboratories in North Canton, Ohio; and Severn Trent Laboratories in Savannah, Georgia) for analysis for VOCs using USEPA Method 8260B. VOCs were detected in the seep sample (Manson Branch #2), but were not detected in the water sample from the stream (Manson Branch #1). Based on these results, further investigation was conducted on the surface water in Manson Branch and seeps above the stream. In June 2000, surface water samples (Manson Branch #3 to Manson Branch #12) were collected from the main channel of Manson Branch along the length of the stream beginning at the Highway 24 bridge and ending at the Highway 17 bridge. Surface water samples (Manson Branch Seep West #1, Manson Branch Seep West #2, and Manson Branch Seep West #3) were also collected from three seeps located along the west side of Manson Branch (Appendix D). VOCs were not detected in the surface water samples from the main channel of Manson Branch (Manson Branch #3 to #12) or in two of the seep locations. A trace amount of cis-1,2-dichloroethene was detected in the water sample from seep Manson Branch Seep West #2 (Seep #2). This seep is located between Manson Branch and the top of the west slope.

Based on the detection of VOCs during the 2000 investigation in seeps, additional surface water investigation was conducted during the CSR assessment. In January 2003, 12 surface water seep samples (Seep A to Seep J, Manson Branch #2, and Seep #2) were collected (Figure 3.0). Three surface water samples (MB#14, MB#15, and MB#16) were also collected from the main channel of Manson Branch (Figure 3.0). The water samples were packaged with ice and shipped under chain-of-custody protocol to Severn Trent Laboratories in North Canton, Ohio for VOC analysis using USEPA Method 8260B.

Surface water seep samples were collected from Seeps A, B, C, D, G, H, I, J, K, L, Manson Branch #2, and Seep #2 (Figure 3.0) in March, June, August, and November 2004. The water samples were packaged with ice and shipped under chain-of-custody protocol to Severn Trent Laboratories in North Canton, Ohio for VOC analysis using USEPA Method 8260B.

The surface water samples collected during the 2000 investigation and the CSR assessment were obtained by submerging the laboratory-supplied sample container with a gloved hand into the water at the seep or in the stream until the container was filled. Water quality parameters of pH, specific conductivity, temperature, and turbidity were measured and recorded for the surface water samples and are presented on Table 3.0.

3.4 SITE SURVEYS

A map identifying the property boundaries of Thermo King and neighboring properties with topographic contours was prepared for the CSR assessment. The map was prepared with data from a combination of aerial photography of the Thermo King Site and ground surveying. The aerial photograph was taken in February 2002 when the leaf cover was at a minimum. The aerial photograph was a conventional color photographic print with true digital orthophotography at a scale of 1 inch = 200 feet and is presented as Figure 2.1. The topographic contouring shown on Figures 2.2 and 3.0 was performed using data from the aerial photography and ground surveying. The surveyed elevations of the sampling points are presented on Tables 3.1, 3.2, and 4.0.

The soil borings, monitoring wells and surface water sampling locations performed for the 2000 through 2004 investigations have been surveyed for horizontal location and for elevation. The horizontal locations of the sampling points were surveyed relative to State of Georgia state plane coordinates NAD 1983 to within 1.0-foot accuracy. The ground surface elevations and top of monitoring well casing elevations were surveyed to the North American Vertical Datum of 1988 (NAVD 88). Ground-surface elevations were surveyed to within 0.1-foot accuracy and top-of-well-casing elevations were surveyed to 0.01-foot accuracy.

3.5 EXPOSURE ASSESSMENT

HSRA Rule 391-3-19-.06(3)4 requires a description of any human or environmental receptors who may have been or could potentially be exposed to a release of hazardous substances at the site. To meet this

requirement, an exposure assessment was conducted to collect data that identifies the human population and ecological systems that may be susceptible to contaminant exposure from the Site. Information obtained during the exposure assessment was used to develop exposure scenarios for determination of HSRA risk reduction standards (RRS). The exposure assessment consisted of a review of historical aerial photographs and maps, local census data and interviews with Thermo King Louisville human resource personnel, and a literature search into ecosystems recognized as threatened, endangered or sensitive by the State of Georgia. Observations from site reconnaissance of the Thermo King property and surrounding areas were also used in the exposure assessment.

The human receptor evaluation of the exposure assessment included a qualitative review of the current land use and human population information for the site and surrounding properties. The land use review was done by visually observing how the land in the site area is used, i.e., agricultural, residential or industrial and review of current aerial photography. Population information was obtained from publicly available documents (census data) and interviewing knowledgeable Thermo King personnel regarding the number of workers on-site per day and the number of hours worked per day. An exposure scenario of a trespasser along Manson Branch who may come into contact with VOC-impacted seeps was also considered. Potential exposure pathways were identified and evaluated to determine if a complete exposure pathway existed between a human receptor and contaminated media. A water-supply well survey was also conducted (Appendix D). The human receptor evaluation is presented in Section 5.0.

The ecological receptor evaluation of the exposure assessment was conducted to characterize the existing ecological values of the site and identify potential aquatic and terrestrial wildlife receptors using the site and adjacent habitats. The ecological receptor evaluation identified potential exposure pathways and evaluated whether or not a complete exposure pathway existed between an ecological receptor and contaminated media. Exposure of wildlife to VOC-impacted seeps was evaluated. The ecological receptor evaluation included a review of publicly available documents to identify endangered, threaten and protected flora and fauna and a site reconnaissance to observe any existing habitats.

The Georgia EPD in their March 11, 2004 comments, requested a screening level ecological risk assessment (SLERA) to be conducted at the Thermo King site. The purpose of the SLERA was to evaluate if VOCs detected in the seeps on the western slope above Manson Branch presented a significant risk to ecological receptors. The SLERA was conducted in accordance with USEPA's "ERA Guidance for Superfund" (USEPA 1997), USEPA Region 4 "Bulletins for Ecological Risk Assessment and

Amended Guidance" (USEPA 2001; 2000). The SLERA was conducted using screening-level problem formulation, evaluation of ecological effects, estimate of exposure and ecological risk calculations. The ecological receptor and risk evaluations are presented in Section 5.0.

4.0 RESULTS OF INVESTIGATION

The investigations conducted in 2000, 2003, 2004, and 2005 at the Thermo King site were used to characterize the geology and hydrogeology of the Site and the nature and extent of regulated substances. The results of those investigations are presented in this section. Appendices B through J provide field and laboratory results. Tables 3.0 through 4.6 summarize the field and laboratory results. Figures 3.0 through 4.11 present sampling locations, hydrogeologic data, and extent of contamination data.

4.1 REGIONAL GEOLOGY AND HYDROGEOLOGY

Louisville, Georgia is located within the Vidalia Uplands District of the Atlantic Coastal Plain Physiographic Province of east-central and southeastern Georgia (Clark and Zisa, 1976). The Atlantic Coastal Plain is characterized by gently rolling to flat topography and is bounded on the north by the Fall Line and to the southeast by the Atlantic Ocean. The Vidalia Uplands District is characterized by low relief with cohesive highly weathered sediments that are poorly sorted clayey sand to sandy clays and cherts. The cohesive sediments are partially responsible for the broad uplands and low relief topography of the district.

The geology of the Atlantic Coastal Plain is generally a wedge of unconsolidated sediments to semi-consolidated clastic sedimentary rocks ranging in age from Jurassic to Holocene (approximately 205 million years ago to the present). At the Fall Line non-marine Cretaceous and Tertiary age (145 to 2 million years ago) sediments overlap Pre-Cambrian (approximately 570 million years ago) crystalline bedrock of the Piedmont. The sediments thicken seaward from a feather edge at their updip limit at the Fall Line where they overlie older crystalline metamorphic, igneous and consolidated sedimentary rocks of the Piedmont. The coastal sediments generally dip gently seaward; however, broad folds, arches, and embayments are superimposed on the Coastal Plain wedge affecting the thickness and distribution of sediments. The sediments consist mostly of layers of sand, silt, and clay and lesser amounts of gravel and limestone derived from weathering of adjacent upland areas and were transported by streams and deposited in fluvial, deltaic, and marine environments. The coarsest-grained materials in a given stratigraphic unit are generally more prevalent near its updip limit while the amounts of clay and other fine-grained materials increase seaward.

The progression of facies from the mainland out to the continental shelf range from fluvio-deltatic-strandline deposits (largely sand, silt and gravel) to lagoonal-shallow marine deposits (argillaceous = clayey) rocks with lesser amounts of interbedded sand) to mid-shelf deposits (predominantly calcareous clay and chalk). These shifts in facies have produced formations that decrease in permeability in the seaward direction. Major marine transgressions (extension of the sea over land) and regressions (retreat of the sea from land) and the resulting shifts of facies in either the landward or seaward direction are the chief determinants of the location of regionally extensive high- and low-permeability sediments. Permeability distribution in the clastic sediments is closely related to their environment of deposition, which in turn reflects geologic age. Thus based on age and depositional environment, the Atlantic Coastal Plain sediments are subdivided into four major hydrogeologic units. These units are described from the oldest to the youngest: (1) predominantly non-marine Cretaceous rock, mostly of Early and Late Cretaceous age (about 145 to 65 million years ago); (2) predominately marine and marginal marine Cretaceous rock (Late Cretaceous age); (3) lower Tertiary rocks, mostly shallow marine deposits (approximately 65 to 1.8 million years ago); and (4) Quaternary and upper Tertiary rocks, shallow marine to fluvial deposits (approximately 23 to 0.01 million years ago) (Meisler, et.al, 1988).

The Louisville, Jefferson County area is underlain by the sediments of the Barnwell and Oconee Groups and deeper by the crystalline bedrock of the Piedmont Physiographic Province. The Barnwell Group sediments are Late Eocene (Jacksonian stage) (43 to 36 million years ago) in age. The Oconee Group sediments are Late Cretaceous to Middle Eocene (97 to 43 million years ago) in age. The Piedmont crystalline bedrock is older than 570 million years ago. Regional unconformities separate the Barnwell Group from the Oconee Group and the Oconee Group from the Piedmont crystalline bedrock. A generalized stratigraphic column showing the relationships of the above described formations and members in central-eastern Georgia is depicted below.

Generalized Correlation of Coastal Plain Geologic Units in East-Central Georgia

Time	Stage	Geologic Formation	Geologic Member of Formation		Unit
ERA:Cenozoic (65 million years ago to present) **PERIOD**: Tertiary (65 to 1.8 million years ago) **EPOCH**: Eocene (57.8 to 36.6 million years ago)	JACKSONIAN (Late Eocene – 43 to 36.6 million years ago)	Tobacco Road Formation	Tobacco Road Sand		**BARNWELL GROUP**
			Sandersville Limestone		
		Dry Branch Formation	Irwinton Sand		
				Griffins Landing	
				Twiggs Clay	
		Clinchfield Formation	Treadwell (East-Central Georgia)	Albion (Eastern Georgia)	
			Riggins Mill (East-Central Georgia)	Utley (Eastern Georgia)	
PERIOD: Late Cretaceous to Middle Eocene (97 to 43 million years ago)			(regional unconformity) Huber Formation		**OCONEE GROUP**
			Gaillard Formation		
ERA:Pre-Cambrian (greater than 570 million years ago)			(regional unconformity) PIEDMONT CRYSTALLINE COMPLEX		

(Based on Huddlestun and Hetrick, 1986, and Pickering, 2000)

The Barnwell Group is divided into three formations described in descending order, the Tobacco Road Formation, the Dry Branch Formation and the Clinchfield Formation. The geologic literature estimates the thickness of the Barnwell Group to be approximately 300 feet in thickness around Jefferson County. The Tobacco Road Formation is the uppermost formation of the Barnwell Group in Jefferson County. The Tobacco Road Sand is a member of the Tobacco Road Formation and is described as reddish-brown in color with highly variable particle size and very poorly sorted, slightly argillaceous sand with cross-bedding and discontinuous laminae of silty to sandy clay. A zone of flattened and rounded fine gravel is sometimes found near the base which indicates that at least the lowest several feet of the formation were deposited at the shoreline. To the west of Louisville, the Tobacco Road Formation

contains the Sandersville Limestone Member at its base. The Dry Branch Formation consists of three interfingering and intergradational lithofacies including the Twiggs Clay, Irwinton Sand, and Griffins Landing Members. The Twiggs Clay of the Dry Branch Formation was probably deposited in mud flats within the intertidal zone. The Twiggs is silty fine sandy micaceous smectitic clay with minor amounts of cristobalite and kaolinite. The Twiggs is very pale greenish-gray to very pale gray to dark gray in color and is fissile with subconchoidal to irregular fracture and contains laminae of silt to very fine sand. The Irwinton Sand Member is probably a sand flat deposit within the intertidal zone. The Irwinton is a medium-grained to moderately sorted sand with cross-bedding and contains low amounts of heavy minerals and mica. Thin layers of Irwinton Sand are common within the Twiggs Clay. The Clinchfield Formation contains four members, the Riggins Mill and Treadwell Members in east-central Georgia, the Albion Member and Utley Limestone Member to the east of the Ogeechee River. The distribution of the Clinchfield Formation is irregular with few outcrops visible downdip in Burke County and in kaolin mines in the updip direction. The Clinchfield is not known for its use as a regional aquifer. The Utley limestone Member is described as a sandy, glauconitic slightly argillaceous, fossiliferous limestone with varying degrees of induration with deposits of calcareous sand or sandstone. The Albion member is described as discontinuous lenses of spiculite, spiculitic clay and mudstone and opal-cemented sandy spiculite and spiculitic sandstone (Hetrick, 1992).

The Oconee Group underlies the Barnwell Group and is separated from the Barnwell Group by a regional unconformity. The Oconee Group is Late Cretaceous to Middle Eocene in age (97 to 43 million years ago) and is divided into the Huber and Gaillard Formations. The lithostratigraphy of the Oconee Group is described as sequences of fining-upward sand and clay layers with multiple cross-bedded layers often capped by discontinuous kaolin lenses. The cross-beds range from rounded quartz gravel with large kaolin clasts at the base through increasingly fine and more clay-rich quartz sand, frequently to an upper lens-shaped cap of kaolin clay. The Huber Formation is Paleocene to Middle Eocene in age (43 to 65 million years ago). It is composed of kaolinitic sand, sand, sandy kaolin, and kaolin with the sands of the upper portion of the Huber generally kaolinitic, micaceous, coarse-grained and poorly sorted with some cross-bedding. Commercial-grade kaolin is mined from the Huber. The lower portion of the Huber sands have better sorting and smaller particle size with some deposits of very poorly sorted gravel-size clastics. The Gaillard Formation is Late Cretaceous in age (97 to 65 million years ago). The Huber and Gaillard Formation contact marks the Cretaceous-Tertiary unconformity. The Gaillard overlies the crystalline rocks of the Piedmont in areas closer to the Fall Line and overlies the undifferentiated Triassic rocks further south of the Fall Line. The Gaillard is composed of alternating beds of clay, sand and gravel with

the sandy portion being poorly sorted with very coarse to fine sand to gravel, interspersed with clay and flakes of muscovite mica. The Gaillard clays are kaolinite and range from pure commercial-grade kaolin to sandy silty micaceous clays. (Gorday, 1985 and Hetrick, 1992).

The crystalline bedrock complex of the Piedmont Province underlies the Oconee Group. The crystalline bedrock is not known to be present at the ground surface in the Jefferson County area. The crystalline bedrock complex is of pre-Cambrian age (greater than 570 million years ago). These rocks are very complex metavolcanics that have been intruded locally by granite. Rock types consist of varying mineralogy with gneisses, schists, phyllites, and granites (Gorday, 1985 and Pickering, 2000).

Regional Aquifers

The Atlantic Coastal Plain hydrogeologic units are a series of aquifers and intervening confining beds created by series of marine transgressions and regressions. Ground-water recharge to the Atlantic Coastal Plain sediments varies considerably over the region, partly because of differences in precipitation, but more importantly, because of variability in the intake capacity of the sediments and an increase in evapotranspiration in the southern latitudes. Layering of the Atlantic Coastal Plain sediments and the development of a complex stream system on the surface of the Atlantic Coastal Plain have significant effects on the ground-water flow system and on the disposition of the recharge. Most of the recharge to an aquifer occurs in its outcrop area. Most water enters the shallow unconfined flow system and discharges into nearby streams. A small amount; however, enters the deeper confined part of the flow system and moving greater distances, discharges into major rivers, estuaries, or the ocean. In east-central Georgia, major aquifers discharge to the Savannah River and the Atlantic Ocean (Meisler, et.al, 1988). The graphical correlation of the geologic units discussed above with hydrologic units (aquifers) is presented below.

Generalized Correlation of Coastal Plain Hydrologic and Geologic Units in East-Central Georgia

Geologic Member Formation	Geologic Unit	Hydrologic Unit
Tobacco Road Formation: *Tobacco Road Sand* Sandersville Limestone	BARNWELL GROUP	Jacksonian, Upper Three Runs, and Gordon Aquifers
Dry Branch Formation: Irwinton Sand Twiggs Clay Griffins Landing		
Clinchfield Formation: Treadwell Riggins Mill Albion Utley		
Huber Formation	OCONEE GROUP	Lower Dublin confining unit
Gaillard Formation		Lower Dublin and Upper and Lower Midville Aquifers
PIEDMONT CRYSTALLINE COMPLEX		

Modified from Hetrick, 1992; Huddlestun and Summerour, 1996; Falls and others 1997 in Ground-water Conditions and Studies in Georgia 2001.

There are several aquifers underlying east-central Georgia. A number of these aquifers have limited potential yield due either to lower relative permeability or insufficient saturated thickness. The Barnwell Group (Clinchfield, Dry Branch, and Tobacco Road Formations) contain the uppermost aquifers in the area and are the Jacksonian, Upper Three Runs, and Gordon hydrologic units (aquifers) (Clarke, 1985 and Priest, 2001). In east-central Georgia, the Upper Three Runs and Gordon hydrologic units are considered part of the upper Floridan aquifer system (Clark and West 1997). Generally, the Barnwell Group hydrologic units tend to be used for individual domestic wells instead of municipal supply.

The Huber Formation of the underlying Oconee Group contains the Lower Dublin confining unit. This hydrologic unit is rarely used for high capacity wells due to the limited thickness of permeable sediments in the updip areas and thick beds of clay and sandy clay that reduce the permeable thickness of the formation. The lower portion of the Huber Formation may produce moderate yields of water.

The sediments of the Gaillard Formation of the Oconee Group contain the Cretaceous Aquifer. The Cretaceous Aquifer is a regional aquifer that is one of several primary sources of water of Coastal Plain Georgia. In east-central Georgia the Cretaceous is subdivided into the Lower Dublin Aquifer and the

Upper and Lower Midville Aquifers undifferentiated. Where the confining units are more sandy, the aquifers are laterally discontinuous the vertically contiguous aquifers coalesce into fewer units. This is sometimes the case in some locations of east-central Georgia where the Dublin and Midville aquifers are not separated by confining units and the hydrologic units are referred to as the Dublin-Midville aquifer. Generally, the Cretaceous Aquifer in east-central Georgia is divided into two distinct flow systems separated by a confining bed into the Upper Cretaceous Aquifer (Dublin) and the Basal Cretaceous Aquifer (Midville). The confining bed, where present, has been observed to be leaky when the Basal Cretaceous (Midville) is pumped. The Upper Cretaceous Aquifer is confined at the top by a red clay that is thicker than the clay between the aquifers and is located at the top of the Gaillard formation. The Upper Cretaceous is either exposed at the surface south of the Fall Line or is hydraulically connected to overlying formations. The upper part of the Cretaceous Aquifer is not extensively developed. The Basal Cretaceous overlies either saprolite or crystalline bedrock or the Triassic basement, depending upon distance from the Fall Line. The Basal Cretaceous is composed of sand and gravel with minor amounts of interspersed clay and is confined at the top by a red clay or sandy clay. Ground water in the Basal flows from the west to the east and discharges to the Savannah River or to creeks and streams where the aquifer is near the surface. The recharge to the Basal is via direct infiltration from surface outcrops of the Gaillard or leakage from overlying formations. The City of Louisville municipal wells are reported to be 300 to 500 feet in depth, and obtain water from the sands of the Cretaceous Aquifer (Dublin-Midville Aquifer) (Gorday, 1985 and Clarke, 1985) and (Clark and West, 1997) and (Priest 2001).

The Piedmont Crystalline rock complex contain aquifers which are generally unconfined and not laterally extensive. These rocks tend to be impermeable, and ground water where present is stored in joints and fractures in the rock. In order to yield usable quantities of water, wells in the Piedmont Crystalline rock must be drilled deep to intercept a sufficient number of fractures holding water. Consequently, well yields in crystalline rock complexes tend to be unpredictable.

4.2 SITE GEOLOGY AND HYDROGEOLOGY

The geology and hydrogeologic characteristics observed on the TK site are described in the following sections. Figures 4.0 through 4.6 present the graphical interpretation of the geology and hydrogeologic characteristics and Appendix B provides the test boring records of soil borings and monitoring wells installed at the site.

4.2.1 Site Geology

The geology underlying the Thermo King site was investigated primarily by logging the lithology and stratigraphy in borings drilled for soil sampling and monitoring well installation. The majority of these borings were terminated at depths of approximately 60 to 70 feet, bgs. Six borings for installing deeper monitoring wells were terminated at depths of approximately 90 to 147 feet, bgs. A deep stratigraphic boring, STB-1, was terminated at a depth of 177 feet, bgs. Hydrogeologic profiles presented on Figures 4.0 through 4.4 show the lithology and stratigraphy of the soils underlying the site. Test Boring Records in Appendix B provide the lithology logged in the borings. In general, the sandy, silty, and clayey strata are oriented horizontally, similar to a layer cake across the site. There is also interfingering of lenses of clay within the sand layers and stringers of sand within the clay layers that are not continuous across the site. Gradation changes in lithology, i.e. clays grading to clayey sand and eventually to sand with depth also occur. This stratigraphy is typical of the Atlantic Coastal Plain geology as described in Section 4.1.

The lithologies encountered to a depth of 177 feet, bgs as logged in boring STB-1 and corresponding hydrogeologic zones are described below. The soils appear to match with the descriptions of the Tobacco Road and Dry Branch Formations of the Barnwell Group. The tan and blue-gray stiff clay at approximately 65 to 80 feet, bgs appears to match the description of the Twiggs Clay presented in Hetrick 1992. The Twiggs Clay is a regional confining unit in east-central Georgia. The lithologic descriptions presented below are from the stratigraphic boring STB-1.

Depth (ft, bgs)	Elevation (ft, NAVD)	Lithologic Description	Hydrogeologic Zone
0 to 35	330.5 to 295.5	Reddish-brown to orange stiff silty, clayey fine to medium SAND to sandy CLAY, subrounded to rounded grains, poorly sorted, becoming more sandy with depth	Vadose
35 to 45	295.5 to 285.5	Orange to yellowish-brown and white, fine to medium SAND, with some coarse grains, grading to well sorted, subrounded to rounded grains	Vadose
45 to 55	285.5 to 275.5	Yellowish-brown with white and orange, CLAY, stiff, cohesive with some coarse sand lenses.	Vadose
55 to 65	275.5 to 265.5	White to light gray to brown fine to coarse SAND, well rounded grains, wet	Uppermost Water-Bearing Zone
65 to 75	265.5 to 255.5	Tan to white to light gray and light greenish-gray stiff CLAY, very cohesive, dry	Confining layer / Perching layer
75 to 80	255.5 to 250.5	Dark blue-gray stiff CLAY to sandy CLAY, cohesive, slightly fissile, slightly calcareous, dry to moist	Confining layer / Perching layer

Depth (ft, bgs)	Elevation (ft, NAVD)	Lithologic Description	Hydrogeologic Zone
80 to 105	250.5 to 225.5	Blue-gray medium to very coarse Clayey SAND to SAND, some rounded gravel, some shell fragments, poorly sorted, subangular to rounded, slightly cohesive, wet	Intermediate Water-Bearing Zone
105 to 110	225.5 to 220.5	Blue-gray CLAY with some sand.	ID
110 to 115	220.5 to 215.5	Dark gray SILT to Clayey SILT with shell fragments, calcareous, some fine to medium subangular to rounded sand.	ID
115 to 125	215.5 to 205.5	Dark gray with green Silty CLAY to Clayey SILT, calcareous, shell fragments, with fine to coarse well rounded sand	ID
125 to 127	205.5 to 203.5	Dark gray LIMESTONE, very hard, brittle, massive, micritic, non-fossiliferous	ID
127 to 148	203.5 to 182.5	Dark greenish-gray stiff Silty CLAY, cohesive, calcareous, shell fragments, with minor amounts of fine sand	A lower water-bearing zone was encountered in monitoring well MW-24 at elevation 184 to 176 ft NAVD consisting of grayish-green clayey silty fine to coarse sand
148 to 150	182.5 to 180.5	Gray LIMESTONE, very hard, brittle, non-fossiliferous	
150 to 153	180.5 to 177.5	Gray Sandy SILT grading into thin lenses of lithified shell fragments and limestone	
153 to 164	177.5 to 166.5	Gray Clayey SILT with well-rounded fine sand, very fossiliferous, and hard, brittle limestone fragments	
164 to 175	166.5 to 155.5	Greenish-gray Silty CLAY, very cohesive and dense, calcareous, minor amounts of very fine sand and shell fragments.	ID
175 to 177	155.5 to 153.5	Dark gray fine to medium SAND, moderately well sorted, subangular to subrounded, and shell fragments.	ID

ID: indeterminate hydrogeologic description, no wells installed.
NAVD: North America Vertical Datum 1988.

4.2.2 Site Hydrogeology

The site hydrogeology described herein is based on field observations and measurements obtained from borings, monitoring wells and surface water sampling locations. Data used for the characterization of the site hydrogeology are summarized on Tables 4.0 and 4.1 and are presented graphically on Figures 4.0 through 4.6. As will be described in subsequent sections of this report, investigations conducted in 2003 and 2004 have detected the presence of facility-related constituents in both the Uppermost and

Intermediate water-bearing zones. The 2003 investigations effort focused on identifying the hydrogeologic characteristics and the presence and extent of constituents in both zones. The 2004 investigation identified a water-bearing zone below the Intermediate water-bearing zone.

In the portion of the site west of Manson Branch, the Uppermost water-bearing zone is located at approximately 55 to 65 feet, bgs (275 to 265 feet, NAVD), within a white to light gray to brown fine to coarse sand perched above continuous low permeability dry strata. The Uppermost water-bearing zone appears to be continuous and persistent across this portion of the site until the sand strata daylight along the eroded slope located above the west bank of Manson Branch (Figure 4.1). Ground-water seeps occur along this slope where the saturated white to brown sand is exposed. Monitoring wells MW-15 through MW-18 were installed on the east side of Manson Branch. The borings advanced prior to well installation did not encounter the sands of the Uppermost water-bearing zone. Rather, alluvial soils directly overlay the uppermost blue-gray clay stratum.

The Intermediate water-bearing zone is located at approximately 80 to 105 feet, bgs (250 to 225 feet, NAVD) within blue-gray medium to very coarse clayey sand to sand. The Intermediate water-bearing zone is separated from the Uppermost zone by approximately 15 feet of tan to white to light gray and light greenish-gray stiff clay and dark blue-gray clay to sandy clay. The ground-water elevations in the Intermediate zone are more than 30 feet lower than the ground-water elevations in the Uppermost zone. The ground water in the Intermediate zone appears to be continuous and persistent across the entire site.

The installation of deep monitoring MW-24 in 2004 encountered a saturated greenish-gray clayey silty fine to coarse sand at 137 to 145 feet, bgs (184 to 176 feet, NAVD). The saturated sand zone was overlain by a dark greenish-gray fine sandy silty clay (209 to 186 feet, NAVD) and a limestone layer (186 to 184 feet, NAVD) and underlain by a dry light grayish-green fine sandy silt (176 to 174 feet, NAVD) (Figure 4.1). This saturated sand is below the Intermediate water-bearing zone and separated from the Intermediate zone by about 20 feet of silty clay and is referred to in this CSR as the Lower water-bearing zone. The ground-water elevation in the Lower water-bearing zone is about 10 feet lower than the ground-water elevation in the Intermediate water-bearing zone and about 40 feet lower than the ground-water elevation in the Uppermost water-bearing zone. The lithologic and stratigraphic data from boring STB-1 and well MW-24 for the interval between 225 and 174 feet, NAVD (interval below the Intermediate water-bearing zone) indicates clays and silts are present in this interval in both the boring

and deep well. Deep well MW-24 tended to exhibit more sand in this interval than appeared to be present in the same interval in boring STB-1.

The ground-water flow directions, horizontal and vertical gradients, and ground-water flow rates for the Uppermost and Intermediate water-bearing zones are discussed in the following sections.

4.2.2.1 Ground-Water Gradients and Flow Direction

Three water-bearing zones (Uppermost, Intermediate, and Lower) have been identified and investigated on the site. Monitoring wells MW-1 through MW-13, and MW-19 are screened in the Uppermost water-bearing zone. Monitoring wells MW 15 and MW-16 screen the alluvial soils on the east side of Manson Branch. Monitoring wells MW-14, MW-17, MW-18, and MW-20 through MW-23 are screened in the Intermediate water-bearing zone. Monitoring well MW-24 screens the Lower water-bearing zone. On October 12, 2004, the ground-water elevations in wells screened in the Uppermost water-bearing zone ranged from 286.73 feet, NAVD in well MW-8 to 274.29 feet, NAVD in well MW-13. Figure 4.5 presents the potentiometric surface map for October 12, 2004 for the Uppermost water-bearing zone.

Figure 4.1 illustrates the ground-water surface in the Uppermost zone along west to east profile A-A', extending from MW-1 on the west side of the site to the seeps where this zone discharges to the surface along the slope above the west bank of Manson Branch. The horizontal gradient in the center and western portion of the site, from MW-1 to MW-5 is approximately 0.004 feet/foot with flow to the east toward Manson Branch. The apparent gradient increases locally in the vicinity of the seeps where ground-water from the Uppermost water-bearing zone discharges.

The ground-water elevations measured on October 12, 2004, in monitoring wells screened in the Intermediate water-bearing zone ranged from 248.67 feet, NAVD in well MW-17 (on the east side of Manson Branch) to 244.72 feet, NAVD in well MW-22 (on the west side of the manufacturing building). Figure 4.6 is the potentiometric surface map of ground-water levels measured on October 12, 2004, in wells screened in the Intermediate zone while Figure 4.1 illustrates the ground-water surface along profile A-A'. The calculated horizontal gradient in this zone is approximately 0.002 feet/foot with flow to the southwest toward the Ogeechee River. The Ogeechee River is located approximately 1.5 miles southwest from the site, where the topographic map shows the river to be at an elevation of about 210 feet, NAVD.

The ground-water elevation in deep monitoring well MW-24 was 234.56 feet, NAVD on October 28, 2004. This ground-water elevation like the ground-water elevation in the Intermediate water-bearing zone is higher than the elevation of the Ogeechee River.

The vertical gradient at the site was evaluated using the ground-water elevations from monitoring well pairs screened in the Uppermost and Intermediate water-bearing zones on October 12, 2004. Ground-water elevations were measured in well pairs MW-1/MW-22, MW-19/MW-14, MW-7/MW-21, and MW-9/MW-23. The ground water elevations in monitoring wells screened in the Uppermost zone were 32 to 41 feet higher than the ground-water elevations in the paired monitoring wells screened in the underlying Intermediate zone. This significant elevation difference and the presence of an apparently unsaturated zone within the clays underlying the Uppermost water-bearing zone indicates that the Uppermost zone is perched in the sands above the tan and blue-gray clays that are confining layers.

A comparison of ground-water elevations between monitoring wells MW-5 (Uppermost), MW-14 (Intermediate), MW-19 (Uppermost), MW-20 (Intermediate), and MW-24 (Lower) indicated the ground-water elevation in the Lower water-bearing zone was lower than the groundwater elevations in the Uppermost and Intermediate water-bearing zones. The ground-water elevations in Uppermost wells MW-5 and MW-19 were 45 feet higher than the ground-water elevation in well MW-24 (Lower water-bearing zone). The ground-water elevations in the Intermediate wells MW-14 and MW-20 were about 12 feet higher than the ground-water elevation in well MW-24 (Lower water-bearing zone).

4.2.2.2 Ground-Water Flow Rates

The hydraulic conductivity values (Table 4.1) and gradients were used to estimate average ground-water flow rates for Uppermost and Intermediate water-bearing zones at the Thermo King Site using Darcy's equation:

$$V = Ki/n_e$$

Where:

V = velocity of groundwater in (feet/year)
K = hydraulic conductivity in (feet/year)
i = gradient in (feet/foot)
n_e = effective porosity (dimensionless) (estimated to be 0.25 for sands)

The coefficient of hydraulic conductivity for the Uppermost water-bearing zone ranged from 0.0005 to 0.0012 feet per minute (ft/min). The gradient in the Uppermost water-bearing zone was estimated from the potentiometric surface map on October 12, 2004 (Figure 4.5) to be approximately 0.004 feet/foot. The ground-water velocity for the Uppermost water-bearing zone was estimated using the above-described parameters. The estimated average ground-water velocity in the Uppermost zone upgradient of the effects of the seeps ranged from about 4 to 10 feet per year in October 2004. The ground-water velocity can be expected to vary due to variations in the hydrogeologic conditions at individual locations and the velocity of dissolved VOCs in ground water will be less than the velocity of water alone due to sorption (retardation) of VOCs on aquifer materials.

The coefficient of hydraulic conductivity for the Intermediate water-bearing zone was estimated to be 0.021 feet per minute (ft/min) and was obtained from well MW-14. The hydraulic gradient for the Intermediate water-bearing zone was determined from the potentiometric surface map on October 12, 2004 (Figure 4.6). The horizontal gradient for the Intermediate water-bearing zone was estimated to be 0.002 feet/foot. The ground-water velocity in the Intermediate water-bearing zone was estimated using the above-described parameters. The estimated average ground-water velocity in the Intermediate zone was about 80 feet per year in October 2004.

4.2.3 Results of the Geochemistry and Dye Trace Studies

The results of the geochemical and dye trace studies at well location MW-14 and MW-19 are discussed in the following sections.

4.2.3.1 Results of Geochemistry Study

The geochemical environments of the Uppermost and Intermediate water-bearing zones were examined to consider the possibility of interconnections between the Uppermost and Intermediate zones in the vicinity of monitoring well pair MW-14/MW-19. Appendix G contains the analytical results, laboratory reports, and data analyses for the geochemical study. Ground-water samples were collected from six monitoring wells and a surface water sample from Manson Branch and analyzed for major inorganic cations (calcium, magnesium, potassium, and sodium), anions (chloride and sulfate), alkalinity, and specific conductance. The cation and anion concentrations were evaluated using charge balance calculations and generation of Piper diagrams (Appendix G). The evaluation indicated that the differences in concentrations of dissolved cations and anions along with differences in specific conductance do not

indicate significant mixing between the water in the Uppermost zone and the water in the Intermediate zone has occurred in the vicinity of monitoring wells MW-14 and MW-19.

4.2.3.2 Dye Trace Study

A dye trace study was performed to evaluate the possibility of a potential vertical flow path between the Uppermost and Intermediate zones at monitoring well MW-14. Rhodamine WT dye was injected into the Uppermost water-bearing zone immediately adjacent to monitoring well MW-14. Prior to the dye injection, a data-logging fluorometer and a dye collection "bug" were installed in monitoring well MW-14. The fluorometer and dye bug were left in the monitoring well for one month following dye injection (Appendix G). Dye was not detected by the fluorometer or the dye bug after one month of monitoring. Dye bugs were installed in wells MW-14, MW-18, and MW-20 in October 2003 and retrieved in October 2004. The dye bugs were eluted and there was no visible evidence of dye from the dye bugs from monitoring wells MW-14, MW-18, and MW-20. The absence of dye in monitoring well MW-14 indicates there is not a significant vertical flow path between the Uppermost and Intermediate zones at well MW-14.

4.2.4 Results of the Soil to Water Partition Study

A total of 22 soil samples were analyzed for total VOCS and a total of 12 soil samples were analyzed for leachability VOCs using SPLP. The analytical results of the soil to water partition study are summarized on Table 4.4 and the laboratory reports are provided in Appendix J. The total and leachability data were used to calculate the site-specific Kd coefficients for trichloroethene and 1,1,1-trichloroethane. 1,4-Dioxane did not appear to leach as did the trichloroethene and 1,1,-trichloroethane concentrations. The total trichloroethene concentrations ranged from 56 to 1800 µg/kg with trichloroethene leaching concentrations ranging from 1.1 to 28 µg/l. The Kd coefficients for trichloroethene ranged from 7.4 to 440 L/kg. The total 1,1,1-trichloroethane concentrations ranged from 130 to 1100 µg/kg with 1,1,1-trichloroethane leaching concentrations ranging from 1.3 to 3.6 µg/l. The Kd coefficients for 1,1,1-trichloroethane ranged from 110 to 295 L/kg. Kd data from the study were used in the calculation of Risk Reduction Standards for trichloroethene. The data for 1,1,1-trichloroethane was too limited for use in Risk Reduction Standard calculation. Default Kd values were used instead.

4.3 NATURE AND EXTENT OF REGULATED SUBSTANCES

The nature and extent of regulated substances were characterized by sampling and analyzing surface soil (0 to 2 feet), subsurface soil (> 2 feet), ground-water, and surface water samples. Soil samples were obtained from soil borings advanced using direct-push technology, rotosonic drilling techniques, and hand augers. Ground-water samples were collected from borings and monitoring wells installed using direct-push technology and rotosonic drilling techniques. Surface water samples were collected from seeps along the slope above Manson Branch and from Manson Branch. Soil and water samples were analyzed for VOCs using USEPA Method 8260B. Ground-water samples were also analyzed for site-specific metals in 2004 at the request of Georgia EPD. Results of the analyses of samples collected from surface and subsurface soils are summarized on Tables 4.2 and 4.3, respectively. The results of the analyses of the soil samples collected for the Kd study are presented separately, on Table 4.4. Analytical results from the ground-water samples are summarized on Table 4.5. Analytical results from the surface water samples from the seeps and from Manson Branch are summarized on Table 4.6. Figures 4.1 through 4.4 illustrate the vertical extent of VOCs in soil and ground water. Figure 4.7 illustrates the horizontal extent of VOCs in the surface and subsurface soils while Figures 4.8 through 4.10 illustrate the horizontal extent of VOCs in ground water. Appendices C, I, and J provide laboratory analytical reports for the soil, ground water, and surface water samples, respectively.

4.3.1 Background Concentrations

HSRA Rule 391-3-19-06(3) (b) 2 defines the horizontal and vertical extent of contamination in soil and ground water as a line connecting point-to-point locations of samples with substance concentrations at or below background concentrations. Chlorinated VOCs are not naturally occurring substances in the environment; thereby, the background concentrations for VOCs are the laboratory practical quantitation limits or non-detect. Essentially, for a HSRA site with VOC releases to soil and ground water, the defined extent a VOC release is a line connecting a series of soil and ground-water sample points where VOCs are not detected above the laboratory quantitation limits, thereby creating a loop around the entire area where VOCs have been detected.

4.3.2 Surface Soil Sampling and Analyses

Surface soil samples (0 to 2 feet bgs) were sampled and analyzed during the 2000 initial investigation, the 2003 CSR assessment, and the 2005 Kd study. Table 4.2 summarizes the surface soil sample analytical

results. Surface soil sample results from the Kd study are on Table 4.4. Soil sampling locations (with analytical results) are shown on Figures 3.1 and 4.7. Eight VOCs were detected above detection limits in surface soil samples collected from across the site and are summarized below.

Constituents Detected in Surface Soils	No. of Detections	Maximum Concentration Detected (µg/kg)	Location and Depth
Trichloroethene	14	4,100	GW-AOC3-2 (0-2 feet)
1,1,2-Trichloroethane	2	26	HA-3 (0.4-2.1 feet)
1,1,1-Trichloroethane	4	180	HA-3 (0.4-2.1 feet)
1,1-Dichloroethene	3	23	HA-3 (0.4-2.1 feet)
1,4-Dioxane	7	3,600,000	Kd-1 (2 feet)
Cis-1,2-Dichloroethene	2	600	GW-AOC3-2 (0-2 feet)
Tetrachloroethene	1	13	SB-2 (1.5-3.5 feet)
Isopropylbenzene	1	16	SB-115 (0-2 feet)

Trichloroethene was detected in surface soils in 14 locations, including beneath the building floor slab adjacent to the former compressor/cross-rod degreaser on the west side of the building and former side-by-side degreaser on the east side of the building; in the former aboveground storage tank area; and in the former south settling pond area. Chlorinated solvents were formerly used, stored or handled in each of the areas noted above. 1,1,2-trichloroethane was detected at two locations (HA-3 and Kd-4) in surface soil beneath the building floor slab, adjacent to the former compressor/cross-rod degreaser. 1,1,1-trichloroethane was detected at four locations (HA-1, HA-3, HA-4, and Kd-4) in surface soil beneath the building floor slab adjacent to the former compressor/cross-rod degreaser on the west side of the building. 1,1-dichloroethene was detected in three locations (HA-3, SB-105, and Kd-4) in the area of the former compressor/cross-rod degreaser beneath the floor slab on the west side of the building. 1,4-dioxane was detected at seven locations (GW-AOC1-1, GW-AOC3-1, HA-2, HA-3, HA-4, Kd-1, and Kd-4) beneath the building floor slab adjacent to the former compressor/cross-rod degreaser on the west side of the building and adjacent to the former elevator degreaser on the east side of the building. Cis-1,2-dichloroethene was detected at two locations (GW-AOC3-2 and HA-5) beneath the building floor slab adjacent to the former elevator and side-by-side degreasers located on the east side of the building. Tetrachloroethene was detected at only one location (SB-2) in the surface soil in the former south settling pond area. Isopropylbenzene was detected at only one location (SB-115) in surface soil on the east side of the site.

As illustrated on Figure 4.7, the horizontal extent of regulated substances in surface soil is defined by the following soil sampling locations:

North:	SB-102, SB-101, GW-E-1, and SB-110
East:	SB-118, GW-E-13, SB-116, GW-E-4
South:	GW-AOC2-1, GW-AOC9-1, GW-AOC9-2, and SB-107
West:	SB-106, SB-104, SB-103, and SB-102

The extent of VOCs in the surface soils is limited to the portion of the site west of Manson Branch.

4.3.3 Subsurface Soil Sampling and Analyses

Subsurface soils (soils from depths greater than 2 feet bgs) were sampled and analyzed during the 2000 initial investigation, the 2003 CSR assessment, and the 2005 Kd study. Tables 4.3 and 4.4 summarize the results of the analyses of the subsurface soil samples. Subsurface soil sampling locations (with analytical results) are shown on Figures 3.1 and 4.7. Eleven VOCs were detected above detection limits in subsurface soils collected from across the site and are summarized below.

Constituents Detected in Subsurface Soils	No. of Detections	Maximum Concentration Detected (µg/kg)	Location and Depth
Trichloroethene	36	2600	Kd-2 (8 feet)
Tetrachloroethene	7	11	SB-1 (10-11 feet)
1,1,1-Trichloroethane	12	2300	Kd-2 (8 feet)
1,1,2-Trichloroethane	2	15	Kd-4 (11 feet)
1,1-Dichloroethene	5	51	Kd-5 (3 feet)
1,4-Dioxane	5	2,800,000	Kd-1 (4 feet)
Cis-1,2-Dichloroethene	11	380	Kd-10 (3 feet)
Ethylbenzene	1	360	SB-3 (5-6 feet)
M+p-Xylenes	2	1400	SB-3 (5-6 feet)
Naphthalene	1	310	Kd-2 (8 feet)
Chloroform	1	11	Kd-10 (13 feet)

Trichloroethene was detected in 36 subsurface soil samples collected from 25 locations at the former compressor/cross-rod degreaser, the former elevator and side-by-side degreasers, the former aboveground storage tank area, the former north and south settling ponds and at two locations downgradient of the building. 1,1,1-trichloroethane was detected in 12 subsurface soil samples collected from nine locations in the areas of the former compressor/cross-rod degreaser on the west side of the building and the former side-by-side degreaser and former aboveground storage tank area on the east side of the building.

1,1,2-trichloroethane was detected in two subsurface soil samples [Kd-4(11 feet) and Kd-5(3 feet)] collected at the former compressor/cross-rod degreaser area. 1,1-dichloroethene was detected in five subsurface soil sample [SB-105 (11-12 feet), Kd-4(11 feet), Kd-5(3 feet), Kd-10(11 feet), Kd-10(17 feet)] collected in the area of the former compressor/cross-rod degreaser on the west side of the building and at the former degreasers on the east side of the building. 1,4-dioxane was detected in five subsurface samples [Kd-1(4 feet), Kd-2(8 feet), Kd-3(3 feet), Kd-3(4 feet), Kd-5(3 feet)] collected from the former degreaser area on the west side of the building. Cis-1,2-dichloroethene was detected in 11 subsurface soil samples from locations adjacent to the area of the former side-by-side degreaser and the former aboveground storage tank area on the east side of the building. Tetrachloroethene was detected in seven subsurface soil samples [SB-1 (10-11 feet), SB-5 (8-9 feet), SB-6 (0-10 feet), SB-7 (7-8 feet), SB-8 (7-8 feet), SB-9 (8-9 feet), and SB-10 (5-6 feet)] collected from the areas of the former north and south settling ponds. Ethylbenzene was detected in one subsurface soil sample [SB-3 (5-6 feet)] from the area of the former south settling pond. M+p-xylenes were detected in two subsurface soil samples [SB-3 (5-6 feet) and SB-4 (8-9 feet)] from the area of the former south settling pond. Naphthalene was detected in one soil sample [Kd-2(8 feet)] collected from the former degreaser area on the west side of the building. Chloroform was detected in one soil sample [Kd-10 (13 feet)] collected from the former degreaser area on the east side of the building.

As illustrated on Figure 4.7, the horizontal extent of regulated substances in subsurface soil is defined by the following soil sample locations:

North:	SB-102, SB-101, GW-E-1, and SB-110
East:	SB-115, GW-E-13, SB-117, GW-E-4
South:	GW-AOC2-1, GW-AOC9-1, GW-AOC9-2, and SB-107
West:	SB-106, SB-104, SB-103, and SB-102

The vertical extent of VOCs in the soils extends from the ground surface down to the Uppermost water-bearing zone at approximately 30 to 46 feet bgs (Figures 4.1 through 4.4). These Figures illustrate that the primary areas of impacts to soils are beneath and immediately adjacent to the manufacturing building, specifically beneath those areas of former chemical storage and use (degreasers and aboveground storage tanks). The highest concentrations detected are in soils immediately below and within a few feet of the floor slab in former degreaser location. Lesser impacts were detected in soil near and/or beneath the former north and south settling ponds. The extent of VOCs in the subsurface soils is limited to the portion of the site west of Manson Branch.

4.3.4 Ground-Water Sampling and Analyses

Ground-water samples were collected and analyzed during the initial 2000 investigation, the 2003 CSR assessment, and in 2004 semi-annual sampling events. The ground-water samples collected in 2000 and 2003 were analyzed for site-specific list of VOCs. The ground-water samples collected semi-annually in 2004 were analyzed for the site-specific list of VOCs and for site metals cadmium, chromium, copper, lead, nickel, silver, and zinc. Table 4.5 summarizes the analytical results of the ground-water sampling events. Six VOCs were detected in ground-water samples collected from across the site and are discussed below.

Constituents Detected in Ground Water	No. of Detections	Maximum Concentration Detected (µg/L)	Location
Trichloroethene	93	20000	MW-19 (5/5/2004)
1,1,1-Trichloroethane	39	83000	GW-AOC1-1 (40-44 feet)
1,1-Dichloroethene	26	2000	GW-AOC1-1 (52-56 feet)
Cis-1,2-Dichloroethene	42	530	MW-14 (6/13/2003)
Chloroform	5	7.7	MW-3 (10/12/2004)
Toluene	6	29	MW-14 (4/21/2003)

Trichloroethene was detected in 93 ground-water samples from 33 sample locations. Thirty-two of the sample locations were screened in the Uppermost water-bearing zone and one location (MW-14) was screened in the Intermediate water-bearing zone. 1,1,1-trichloroethane was detected in 39 ground-water samples from 16 sample locations in the Uppermost water-bearing zone. 1,1-dichloroethene was detected in 26 ground-water samples from 14 sample locations in the Uppermost water-bearing zone. Neither 1,1,1-trichloroethane or 1,1-dichloroethene were detected in samples collected from the Intermediate water-bearing zone. Cis-1,2-dichloroethene was detected in 42 ground-water samples from 15 sample locations. Thirteen of the sample locations with detections of cis-1,2-dichloroethene were screened in the Uppermost water-bearing zone and two were from locations screened in the Intermediate water-bearing zone (MW-14 and MW-20). Chloroform was detected in 5 ground-water samples from 4 sample locations (MW-1, MW-3, SB-113, and SB-114) in the Uppermost water-bearing zone. Toluene was detected six times at six sample locations (MW-1, MW-2, MW-14, MW-20, GW-AOC 9-1, and GW-AOC 9-2), only once per location.

The chlorinated VOCs (1,1,1-trichloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene; and trichloroethene) were detected beneath or downgradient of the former compressor/cross-rod degreaser, former elevator and side-by-side degreasers, former aboveground storage tank area, and the former north and south settling ponds. Chlorinated solvents were formerly stored or handled in these areas. Toluene was formerly used as a paint-thinner and was only detected in ground-water samples from locations downgradient of the hazardous waste and paint storage areas. The low concentrations of chloroform were detected in ground-water samples from borings SB-113 and SB-114 and from wells MW-1 and MW-3. The borings were drilled using potable water and rotosonic drilling techniques. Potable water was also used to clean sampling equipment. The chloroform is likely present as a constituent in the water used in the drilling as a ground-water constituent and is not considered to be present.

Horizontal Extent

As described in Section 4.2.2.1, the ground-water in the Uppermost water-bearing zone appears to be perched above the Twiggs Clay and discharges to seeps located along the eroded slope above the west bank of Manson Branch. Since the seeps are the surface expression of ground water from the Uppermost zone, the analytical results from the water samples from the seeps were considered along with the analytical results from ground-water borings and monitoring wells in delineating the horizontal extent of VOCs in the Uppermost zone. As requested by the Georgia EPD in our May 4, 2004 meeting, the analytical results from surface water samples from Manson Branch have also been used to delineate the horizontal extent of VOC in the Uppermost water-bearing zone. Accordingly, as presented on Figure 4.8, the horizontal extent of regulated substances in ground water in the Uppermost water-bearing zone is defined by the following ground-water sampling locations:

North:	MW-7, MW-6, Seep A, and Manson Branch #14
East:	Manson Branch #15, Manson Branch #3, Manson Branch #4, Manson Branch #5, Manson Branch #6, Manson Branch #7, and Manson Branch #8
South:	MW-13, MW-12, MW-11, and MW-9
West:	MW-1, MW-8, and MW-7

Also as presented on Figure 4.8 the horizontal extent of regulated substances in the ground water in the Intermediate water-bearing zone is defined by a line connecting along the north from MW-21 to MW-17, along the east to MW-18, along the south to MW-23 and along the west to MW-22 and back to MW-21.

The horizontal extent of trichloroethene and cis-1,2-dichloroethene in the Uppermost water-bearing zone is shown on isoconcentration maps Figures 4.9 and 4.10. Trichloroethene extends horizontally from the Thermo King building to the east across the center portion of the site to the seeps along the eroded slope above the west bank of Manson Branch. Cis-1,2-dichloroethene extends horizontally from the eastern side of the Thermo King building to the east across the center portion of the site to the seeps above the west bank of Manson Branch.

Vertical Extent

The vertical extent of VOCs in the Uppermost water-bearing zone extends down to the top of the stiff tan clay confining and perching layer as defined by monitoring wells MW-3, MW-5, MW-10, and MW-19 (Figures 4.1 through 4.4). The vertical extent of VOCs in the Intermediate water-bearing zone extends down to the top of a second blue-gray clay as defined by monitoring wells MW-14 and MW-20 (Figures 4.1 through 4.4). In October 2004, monitoring well MW-24 was installed at a location between well MW-5 and MW-14 (Figure 3.0) to delineate the vertical extent of VOCs below the Intermediate water-bearing zone. The monitoring well was constructed with three casings to seal off the Uppermost and Intermediate water-bearing zones. The monitoring well screens a saturated greenish-gray clayey silty fine to coarse sand that is overlain by a greenish-gray sandy clay and limestone lens and underlain by a sandy silt. The ground-water elevation in this well is about 12 feet lower than the ground-water elevation in the Intermediate water-bearing zone. The saturated greenish-gray clayey silty fine to coarse sand does not appear to be connected to the Intermediate water-bearing zone and is referred to in this CSR as the Lower water-bearing zone. Monitoring well MW-24 was sampled on October 12 and 28, 2004 and VOCs were not detected. Based on this data, VOCs in ground water are confined to the Upper and Intermediate water-bearing zones. The delineated extent of VOCs in ground water in the Uppermost and Intermediate zones is confined to the Thermo King property, west of Manson Branch.

4.3.5 Surface Water and Seep Sampling and Analyses

Water samples were collected for analyses for VOCs from seeps located on the slope above the west side of Manson Branch during the 2000 initial investigation, the 2003 CSR assessment and during 2004 sampling events. Surface water samples were collected for similar analyses from Manson Branch in 2000 and in 2003. Tables 4.6 and 4.7 summarize the results of these analyses; sampling locations are shown in

Figure 4.8. Overall, water samples have been collected from 30 seep and surface water locations. Five VOCs were detected in the seep samples collected in 2004 and are discussed below.

Constituents Detected in Seep Samples in 2004	No. of Detections	Maximum Concentration Detected (µg/L)	Location
1,1,1-Trichloroethane	7	1900	Manson Branch #2 (seep)
1,1-Dichloroethene	4	1000	Manson Branch #2 (seep)
Cis-1,2-Dichloroethene	15	190	Seep J
Trichloroethene	10	4400	Manson Branch #2 (seep)
Vinyl Chloride	2	26	Seep J

There are 16 seep sampling locations on the west slope above Manson Branch. Fourteen surface water sampling locations were in the main channel of Manson Branch. In 2004, water samples were collected on a quarterly basis from 12 seeps: Manson Branch #2, Seep #2, Seep A, Seep B, Seep C, Seep D, Seep G, Seep H, Seep I, Seep J, Seep K, and Seep L. The greatest distribution and highest concentration of VOCs were detected in samples from seeps Manson Branch #2, Seep C and Seep J. Seeps Manson Branch #2 and C are located relatively high on the slope, in an eroded gulley located southeast of the former South Settling Pond; Seep J is also located relatively high on the slope, to the northeast of the former South Settling Pond. The constituent having the highest concentration, trichlorethene, was detected in samples from Manson Branch #2 (seep), and Seeps B and C. During 2004, the concentration of trichlorethene in Manson Branch #2 samples ranged from 210 to 4400 µg/L. Lower concentration of 1.1.1-trichlorethene and 1,1-dichlorethene were detected in samples from Manson Branch #2 and Seep C while elevated cis-1,2-dichloroethene were detected at Seep J.

The VOCs were detected in seeps located at elevations of 273 to 267 feet, NAVD. These elevations are lower than the ground-water elevations in the Uppermost zone (286 to 274 feet, NAVD) and higher than the ground-water elevations in the Intermediate zone (248 to 244 feet, NAVD). As described in Section 4.2.2.1, ground-water from the Uppermost zone is perched on a tan clay unit and discharges at seeps along the eroded slope above Manson Branch where the Uppermost water-bearing zone daylights. The detected VOC concentrations in the seeps are somewhat less than the VOC concentrations in the ground water in monitoring wells upgradient of the seeps. VOCs have not been detected in any of the 14 surface water samples collected from Manson Branch or in the seeps immediately adjacent to Manson Branch (Table 4.7).

4.3.6 Interpretation of Contaminant Migration

VOCs were detected in soils and in ground water in the Uppermost water-bearing zone beneath the former degreaser locations located inside the manufacturing building, below the adjacent former aboveground storage tank area and below the former south settling pond. VOCs were also detected in ground water in the Intermediate water-bearing zone below and east of the area of the former south settling pond. The horizontal extent of VOCs in the ground water is presented on Figures 4.8 through 4.10 and the vertical extent of the VOCs in soil and ground-water is indicated on Figures 4.1 through 4.4. Ground water in the Uppermost water-bearing zone flows to the east toward Manson Branch and discharges to seeps located on the eroded slope above the west bank of Manson Branch; ground water in the deeper Intermediate water-bearing zone flows to the southwest toward the Ogeechee River. In neither zone do VOCs migrate off-site.

The presence of VOCs in ground water in the Uppermost water-bearing zone beneath areas of former VOC use, handling and storage is not unexpected, especially considering the site stratigraphy, and is supported by data from the assessment of VOCs in soils in areas where groundwater contains VOCs. However, an explanation for the presence of these VOCs, specifically trichloroethene and cis-1,2-dichloroethene, in the Intermediate water-bearing zone in the area of the former south settling pond at concentrations that have approached those in the overlying Uppermost water-bearing zone is not clear. Ground-water quality in the Intermediate water-bearing zone has been investigated by sampling from several monitoring wells; two located east of Manson Branch (MW-17 and MW-18), three located in the vicinity of the manufacturing building (MW-21, MW-22, and MW-23), and two in the general area of the former south settling pond (MW-14 and MW-20). VOCs were detected only in samples from two monitoring wells (MW-14 and MW-20) and samples from only one well, MW-14, contained significant VOC concentrations (TCE at 1,900 µg/L). Well MW-14 is located approximately 150 feet east of the former pond, in a direction that is hydraulically upgradient from the former south settling pond. Well MW-20 is located approximately 100 feet west (hydraulically downgradient) of the former south settling pond. Only cis-1,2-dichloroethene was detected in samples from MW-20 at 52 µg/L.

In essence, the presence of VOCs in the Intermediate water-bearing zone is based almost solely on data from one well, MW-14. On several occasions MW-14 was purged of up to several hundred gallons of ground water and sampled, confirming the consistent presence and general concentration of trichloroethene, primarily, and cis-1,2-dichloroethene. Studies were conducted to investigate the

possibility that the presence of VOCs in the Intermediate water-bearing zone was associated with natural or drilling induced migration pathways at or near MW-14. These included the ground-water geochemistry and dye tracing studies previously described in Section 4.2.3 of this Revised CSR. Based on the consistency of the multiple sampling results, the apparent dissimilarity in geochemical characteristics of ground water in the Uppermost and Intermediate water-bearing zones and the results of the dye tracing study, it is concluded that the presence of VOCs in the Intermediate water-bearing zone is not due to the presence of a natural or man-induced vertical conduit at or in the immediate vicinity of MW-14.

Other possible explanations for the presence of VOCs in the Intermediate water-bearing zone are discussed below. A schematic of possible migration pathways are shown on Figure 4.11.

- Possible migration of VOCs vertically through the perching/confining clay strata that separates the Uppermost and Intermediate water-bearing zones: Trichloroethene has been detected in the Uppermost zone, at MW-19, at concentrations up to 20,000 µg/L (about 1.8 percent of the trichloroethene solubility limit of 1100 mg/l of pure water). These maximum concentrations suggest the potential for the localized presence of separate-phase trichloroethene in the Uppermost zone above the clay perching and confining strata. Investigations to date have not encountered separate-phase trichloroethene in the ground water. If such a separate phase condition did exist, concentrated trichloroethene may have thereby migrated vertically, under gravity and 30+ feet of perched-water hydraulic head, through the confining and perching clay layer and locally into the underlying Intermediate zone. This potential pathway is consistent with the pattern of current observations that the same VOCs are present in the same vicinity in both the Intermediate water-bearing zone and in the overlying Uppermost water-bearing zone and that significant VOCs are present in the Intermediate zone only in this area of the site.

- Possible migration of VOCs “around” the perching clay strata that separate the Uppermost and Intermediate water-bearing zones: The ground surface slope from the area of MW-14 down to the west side of Manson Branch is steep, eroded and periodically saturated. No borings for monitoring well installation or stratigraphic determination have been drilled on this steep slope. Depending on the vertical and lateral limits of former erosion by Manson Branch back into this slope, now covered with colluvial and/or alluvial deposits, it may be possible that ground water from the Uppermost water-bearing zone carrying high concentrations of VOCs may have seeped around or vertically through eroded or thinned portions of the tan and blue clay perching strata of the Uppermost water-bearing zone and into the underlying Intermediate water-bearing zone, resulting in the presence and concentration of VOCs now detected at MW-14. Observations of current relatively low concentrations of VOCs in the seeps above Manson Branch and the absence of VOCs in Manson Branch surface water samples suggest this is not likely a significant ongoing mechanism of VOC migration to the Intermediate water-bearing zone.

5.0 HUMAN AND ECOLOGICAL RECEPTOR STUDIES

HSRA Rule 391-3-19-.06(3) requires a description of any human or environmental receptor who may have been or could potentially be exposed to a release at the site. An exposure assessment was conducted to identify human populations and ecological systems that may be susceptible to exposure to contaminants from the site. The receptor studies identify human and environmental receptors that may now or in the future be in direct contact with contaminated soils or ground water at the site as well as humans and other organisms potentially exposed to contamination along migration pathways. Based on the presence of VOCs in seeps along the slope above Manson Branch, the Georgia EPD in their March 11, 2004 comments on the CSR requested a screening level ecological risk assessment (SLERA) to be conducted. The results of the human and ecological receptor studies and the screening level ecological risk assessment are discussed in the following sections.

5.1 SITE SETTING AND LAND USE

The site is located in the Atlantic Coastal Plain Physiographic Province of eastern and southeastern Georgia. The Atlantic Coastal Plain is characterized by gently rolling to flat topography. The Coastal Plain sediments generally dip gently seaward; however, broad folds, arches, and embayments are superimposed on the Coastal Plain wedge affecting the thickness and distribution of sediments. The site is located within the Ogeechee River Basin. The Ogeechee River basin lies in the Outer Coastal Plain Mixed Forest Province Ecoregion and is comprised of forests (48%), agricultural lands (36%), and wetlands (13%). The Outer Coastal Plain is characterized by temperate evergreen forest or laurel forest (Bailey, 1995). The Ogeechee River is a typical blackwater coastal stream. Information on wetlands was obtained from the National Wetlands Inventory (NWI) map for the Louisville, Georgia topographic quadrangle. A wetland area is associated with Manson Branch. The stream flows to the south and is a tributary to the Ogeechee River and has been impounded by beaver activity such that the area immediately south of Highway 24 is a swamp.

The area immediately surrounding the Thermo King site is residential, agricultural and woodlands. The site is bounded on the north by Highway 24 and a residential area (across Highway 24) with single-family homes. The site is bounded on the east beyond Manson Branch with a few single-family homes and woodlands. Lizzie and Tommie Quarterman own the property adjacent to the site's northeast corner (Appendix A) and the Ethel Clark estate owns the property adjacent to the east and south property

boundaries. To the south beyond the Clark estate are more fields and woodlands. Woodlands owned by the Louisville Chamber of Commerce bound the site to the west. Beyond these adjacent and near-site properties, the areas further to the east and south become more rural. Residential development increases to the north. The City of Louisville and associated residential and commercial developments are to the west.

The Thermo King property is used for industrial purposes. The property contains two land parcels, the 55-acres plant parcel and the 56-acres eastern parcel for a total of 111-acres. The majority of the acreage is woodlands with the manufacturing and associated activities occupying the north central and northwestern portions of the site (Figure 2.1). The 55-acre plant parcel contains a manufacturing building, a waste water facility, paved parking and storage areas. The main manufacturing building with approximately 300,000 square feet under roof and is constructed on a concrete slab with metal walls. The wastewater treatment facility is a separate building located to the east of the main building and houses wastewater treatment machinery and chemicals used in the treatment process. There are also roofed open-sided storage sheds located on the west, south and east sides of the main building that are used for the storage of materials and equipment, and as testing chambers for finished products. A woodlands buffer surrounds the manufacturing areas on the west and south sides. Highway 24 bounds the entire property along the north side. The 56-acres eastern parcel adjoins the 55-acres plant parcel on the east side and extends to the east across and beyond Manson Branch. The eastern parcel is woodlands. The woodlands surrounding the building and in the eastern parcel are a combination of pines with a few hardwoods. The majority of the woodland areas are thick with scrub brush, small trees, and briars.

5.2 PATHWAYS

VOCs have been detected in the surface and subsurface soils, in ground water in the Uppermost and Intermediate water-bearing zones, and in the water in some of the seeps located along the slope above the west bank of Manson Branch. The identified pathways are discussed in the following sections.

5.2.1 Soil Pathway

VOCs have been detected in the surface and subsurface soils in the area of the manufacturing building, at the locations of former degreasers and former above ground storage tanks. These areas of impacted soils are located beneath buildings or pavement. VOCs were also detected in the areas of the former north and south settling ponds. These areas are graded over and grassed. The potential for exposure to

contaminants in soil via fugitive dust is low because the areas where VOCs have been detected are covered. The most likely potential exposure pathway to VOC-impacted soils would be via excavation into the soils.

5.2.2 Ground-Water Pathway

The ground water in the Uppermost water-bearing zone beneath the site flows to the east toward Manson Branch. The depth to ground water in the Uppermost zone is about 35 to 40 feet in the plant operations area. The ground water in the Uppermost water-bearing zone discharges to seeps where the site slopes down to Manson Branch. While VOCs have been detected in certain of the seeps, they have not been detected in surface water samples from Manson Branch.

The ground water in the Intermediate water-bearing zone beneath the site flows to the southwest toward the Ogeechee River. The depth to ground water in the Intermediate zone is about 75 feet below ground surface in the plant operations area. VOCs have been detected in the Intermediate zone on the east side of the plant (MW-14 and MW-20), but have not been detected in the immediate plant area or on the downgradient side (west and southwest sides) of the site. The site assessments indicated that contaminants in the Uppermost and Intermediate water-bearing zones do not migrate off-site.

A water-supply well survey was performed in April 2000 to identify public and private water-supply wells located within a three-mile radius of the facility (LAW, 2000). A copy of the water supply survey report (LAW, 2000) is provided in Appendix D. During the survey, six municipal wells and several private wells were identified in the surrounding area based on visual observations and review of Georgia Environmental Protection Division (EPD) and United States Geological Survey (USGS) well databases. Using the results of the well survey, the wells located closest to the site were identified for sampling and analysis.

The City of Louisville operates a total of six municipal water-supply wells. Five of the wells are located on the southwest side of the city and the sixth well is located to the southeast of the intersection of Highway 17 and Highway 24, near Lake Marion. It is our understanding that these water supply wells obtain water from the sands of the Cretaceous Aquifer (Dublin-Midville Aquifer) at a depth of approximately 300 to 500 feet. Nine private water-supply wells providing water to residences were located to the east and southwest of the site. The reported depths of the private wells ranged from 123

feet to approximately 400 feet. The depth for three of the private wells was unknown by the property owners. Eight of the nine private wells are used to supply household water. The ninth private well is used to fill a residential swimming pool. Figure 1 in Appendix D shows the locations of the wells in reference to the site.

Samples were collected in May 2000 from each of the six municipal water-supply wells and each of the nine private water-supply wells to determine if constituents in the ground water at the facility had migrated to these wells (LAW, 2000). The samples were analyzed for VOCs using USEPA Method 8260B. Triplicate samples were collected from each of the private wells and sent to three different analytical laboratories. The analytical results indicated that VOCs were not detected in any of the wells sampled. The City of Louisville samples and analyzes their supply wells once per year for VOCs as required by the Georgia EPD drinking water regulations. Based on the items discussed above, the presence of contaminants in ground water at the site is not an actual or potential threat to drinking water supplies.

5.2.3 Surface-Water Pathway

The general site topography slopes down to the east toward Manson Branch and adjacent low-lying areas. Manson Branch is a perennial stream that flows approximately 1.5 miles southward from the site into an unnamed pond and then on to the Ogeechee River. Several storm water drainage features allow surface run-off to flow east away from the plant area to Manson Branch (see Figure 2.2). Erosion of the slope above Manson Branch has occurred along some of these features. One, in the center part of the slope, has developed into a “ravine-like” feature. While seeps associated with discharge from the Uppermost water-bearing zone occur along the north-south length of the slope, flow is most apparent in the eroded drainage features.

Since 2000, surface water samples have been collected from Manson Branch and from seeps on the slope above the west bank of Manson Branch. These samples were analyzed for VOCs. VOCs have not been detected in surface water samples from Manson Branch or in samples from many of the seeps. However, samples collected in 2004 from eight seeps (Manson Branch #2, Seep B, Seep C, Seep G, Seep H, Seep J, Seep K, and Seep L) (Table 4.6 and Figure 4.8) had detectable concentrations of one or more VOCs (1,1,1-trichloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene, vinyl chloride, and trichloroethene). The maximum detected concentrations of these VOCs in seep water were compared to ecological

screening criteria for surface water: USEPA Region 4 Freshwater Surface Water Screening Values (USEPA, 2001), the Georgia Instream Surface Water Criteria (GA DNR, 2004), and the Oak Ridge National Laboratory (ORNL) Toxicological Benchmarks for surface water (Suter and Tsao, 1996) (Table 5.1). The results of the comparisons were as follows:

- The maximum detected concentration of 1,1-dichloroethene exceeded the Region 4 freshwater, Georgia Instream, and the ORNL surface water screening criteria.
- The maximum detected concentration of cis-1,2-dichloroethene did not exceed either the Region 4 freshwater or the ORNL surface water screening criteria; there is no Georgia Instream screening criteria for cis-1,2-dichloroethene.
- The maximum detected concentration of 1,1,1-trichloroethane exceeded the Region 4 freshwater and the ORNL surface water screening criteria; there is no Georgia Instream screening criteria for 1,1,1-trichloroethane.
- The maximum detected concentration of trichloroethene exceeded the Georgia Instream and ORNL surface water screening criteria; there is no Region 4 freshwater screening criteria for trichloroethene.
- The maximum detected concentration of vinyl chloride did not exceed either the Georgia Instream or the ORNL surface water screening criteria; there is no Region 4 freshwater screening criteria for vinyl chloride.

5.3 POTENTIAL HUMAN RECEPTORS

As discussed in Section 2.0, the facility is an active manufacturing plant located on an approximately 111-acre site. The plant operations area occupies approximately 40 to 45 acres in the western portion of the site. The center and eastern portions are primarily wooded and include low lying areas along Manson Branch.

Current and future workers are the most likely on-site human receptors. Other potential on-site receptors include commercial/industrial/construction workers that may go onto the site for limited periods of time. The occasional trespasser in wooded areas remote from the manufacturing area is another potential on-site human receptor. The potential for residential receptors to be present on the Thermo King property in the future is considered low.

Exposure of residential or other off-site receptors is unlikely. Potentially impacted soils at the site are covered by buildings, pavements, grass, unmaintained vegetation, brush, and woodlands. Therefore, there is little potential for off-site exposure to contaminants in soils via fugitive dust. Portions of both the

Uppermost and Intermediate water-bearing zones beneath the site have been impacted with contaminants from facility operations. However, as noted previously, no impacted ground water in either the Uppermost or the Intermediate water-bearing zones migrates off-site. No VOCs were detected in off-site municipal or private water supply wells.

Potential human receptors quantitatively evaluated for the purposes of developing site-specific RRS are current and future on-site workers. Due to their career-long potential exposure duration, the on-site workers represent the most conservative receptor for the HSRA Type 4 RRS calculations. Exposure through inhalation of fugitive dusts, vapor emissions, and incidental ingestion of impacted soils are plausible exposure routes for current and future on-site workers. Georgia EPD policy under the Hazardous Site Response Act (HSRA) Rules presumes that all ground water could be drinking water. Accordingly, the ingestion of contaminated ground water as potable water by on-site workers was also assumed even though the plant obtains potable water from the city distribution system.

5.4 SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT

Potential ecological receptors were identified and described in the 2003 CSR. The objectives of the ecological receptor evaluation were to provide a characterization of the existing ecological values at the site, identify potential aquatic and terrestrial wildlife receptors at the site and adjacent habitats, and identify potential exposure pathways. Observed species and communities were qualitatively assessed for potential exposure to site contaminants. Based on the ecological receptors identified and the potential to be exposed to VOCs in the seeps located on the slope above the west bank of Manson Branch, the Georgia EPD, in their March 11, 2004 comments on the CSR, requested the performance of a screening level ecological risk assessment of the site. The identification and evaluation of ecological receptors is part of the screening-level ecological risk assessment described in the following sections.

The screening-level ecological risk assessment (SLERA) for the Thermo King facility was conducted in accordance with the USEPA's "ERA Guidance for Superfund" (1997), USEPA Region 4's Bulletins for Ecological Risk Assessment and Amended Guidance (USEPA, 2001; 2000). The SLERA is comprised of the screening-level problem formulation, ecological effects evaluation, exposure estimate, and ecological risk calculations. Following the presentation of screening-level risk calculations, the results are discussed within the constructs of uncertainties. This information can then be used for the scientific/management decision point (SMDP) regarding ecological risks at the site.

5.4.1 Screening-Level Problem Formulation

The screening-level problem formulation provides information used to establish the overall goals, breadth, and focus of a SLERA (USEPA, 1997). The goals, breadth, and focus of this SLERA are to provide a conservative evaluation of the likelihood for adverse effects to occur for wildlife that may be exposed to contaminants associated with the site, either currently or in the future. In addition, the screening-level problem formulation addresses six elements that are considered during the development of a conceptual site model for the SLERA. These six elements are the following:

- Environmental setting and potential receptors
- Constituents of potential concern
- Contaminant fate and transport processes
- Mechanisms of ecotoxicity
- Potentially complete exposure pathways
- Preliminary assessment endpoints

The Conceptual Site and Food Chain Models for the TK Louisville site are presented in Figures 5.1 and 5.2. The remainder of this section addresses the elements of the screening-level problem formulation.

5.4.2 Environmental Setting and Potential Receptors

5.4.2.1 Environmental Setting

The site is located in the Atlantic Coastal Plain Physiographic Province of eastern and southeastern Georgia. The Atlantic Coastal Plain is characterized by gently rolling to flat topography. The Coastal Plain sediments generally dip gently seaward; however, broad folds, arches, and embayments are superimposed on the Coastal Plain wedge affecting the thickness and distribution of sediments. The site is located within the Ogeechee River Basin. The Ogeechee River Basin lies in the Outer Coastal Plain Mixed Forest Province Ecoregion and is comprised of forests (48%), agricultural lands (36%), and wetlands (13%). The Outer Coastal Plain is characterized by temperate evergreen forest or laurel forest (Bailey, 1995). The Ogeechee River is a typical black water coastal stream. The surficial soil series identified at the site consists of Bibb and Osier soils, Faceville sandy clay loam soils, and Lucy loamy sand soils (Soil Survey of Glascock and Jefferson Counties, Georgia, USDA, 1994). The Bibb and Osier soil series are located adjacent to Manson Branch and are considered hydric soils in Georgia.

The area immediately surrounding the site is residential, agricultural and woodlands. The site is bounded to the north by Highway 24 and a residential area, to the east by Manson Branch and single-family homes, to the south by agricultural fields and woodlands, and to the west by woodlands, single-family homes, and commercial development. Beyond these adjacent and near-by properties, the areas further to the east and south become increasingly more rural. Residential development increases to the north. The City of Louisville is located to the west.

Approximately 40 percent of the 111-acre site, which is an active refrigeration unit manufacturing plant, is developed with buildings, parking lots, and maintained open area; the remaining portion is undeveloped woodlands or scrub/shrub areas suitable for wildlife (Figure 2.1). The western portion of the property is relatively flat and contains the manufacturing building and paved parking lots. The central portion of the property slopes down toward Manson Branch. The sloping area above Manson Branch has a mixed pine/hardwood forest with privet, briars, and palmetto understory. The Uppermost water-bearing zone discharges to surface seeps on the slope above the west bank of Manson Branch. The eastern portion of the site is also forested with pines and hardwoods and wetlands along Manson Branch. Manson Branch is a perennial stream that flows approximately 1.5 miles southward from the site into an unnamed pond and then on to the Ogeechee River.

Terrestrial habitats typically dominating the Ogeechee River basin include evergreens, oaks and species of the laurel and magnolia families. These habitats usually include a well-developed lower stratum of vegetation consisting of tree ferns, small palms, shrubs, and herbaceous plants. At lower elevations, trees such as the Evangeline oaks, bald cypress and others are covered by Spanish moss. Commonly found terrestrial animals include white-tailed deer, raccoons, opossums, flying squirrels, rabbits, and numerous species of ground-dwelling rodents. The bobwhite quail, eastern wild turkey and mourning doves are primary game birds. Migratory non-game bird species and waterfowl are numerous in this region. The diverse fish fauna of the Ogeechee River basin includes 59 species representing 23 different families; the largest group of species belonging to the sucker family (Bailey, 1995).

No wildlife management areas or GDNR-designated natural communities occur within 0.5 miles of the site (GA DNR, 2007). Protected species found in Jefferson and surrounding counties and their federal and state status, preferred habitat availability, are listed on Table 5.0. The list includes 12 species of animals and 18 species of plants. No rare or unusual natural communities are noted by the GDNR as being observed within the Louisville, Georgia area. Two protected species, Bald Eagle (*Haliaeetus*

leucocephalus) and Sweet Pitcher plant (*Sarracenia rubra*), were noted by the GDNR as being previously observed within the area designated on the Louisville, GA area USGS quadrangle topographic map. Protected species noted by the GDNR to be present in the areas covered on adjacent topographic maps (Kellys Pond, Louisville South, and Old Town) include Sweet Pitcher plant, Grit or Cutleaf Beardtongue (*Penstemon dissectus*), Atlantic Pigtoe (*Fusconaia Mansoni*), and Spotted Turtle (*Clemmys guttata*) (USFWS, 2007; Ga DNR, 2007).

Information on wetlands was obtained from the National Wetlands Inventory (NWI) map for the Louisville, Georgia topographic quadrangle (NWI Wetlands Status, 2000). A wetland area is associated with Manson Branch. The stream (Manson Branch) has been impounded by beaver activity and is swampy immediately south of Highway 24.

Trees noted on the property included oaks (*Quercus sp.*), sweetgum (*Liquidambar styracuflua*), magnolia (*Magnolia sp.*), cherry (*Prunus serotina*), and pine (*Pinus sp.*). Vegetation observed in the under story or in scrub/shrub areas included Chinese privet (*Ligustrum sinese*), palmetto (*Sabal minor*), and briars (*Smilax sp.*).

5.4.2.2 Potential Ecological Receptors

Federal and state governmental agencies, including the United States Fish and Wildlife Service (USFWS) and the Natural Heritage Program of the Georgia Department of Natural Resources (GDNR) were contacted for available background information concerning the area within a 0.5-mile radius of the site. The USFWS website (http://athens.fws.gov/endangered/counties_endangered.html) was accessed on February 22, 2007 for listed species in Jefferson and the surrounding counties. The GDNR website (http://georgiawildlife. dnr.state.ga.us/content/displaycontent.asp?txtDocument=89&txtPage6) was accessed on February 22, 2007 for listed species in Jefferson and surrounding counties and for those species listed by United States Geological Service (USGS) 7.5 minute series Louisville, South Louisville, Kellys Pond, and Old Town topographic quadrangles.

A variety of mammals and birds are likely to find suitable habitat in the central and eastern portions of the property. Small terrestrial mammals, such as short-tailed shrews (*Blanna brevicauda*) and white footed mice (*Peromyscus leucopus*), may burrow and forage in the wooded area adjacent to the plant parcel.

Insectivorous birds, such as the American robin (*Turdus migratorius*), may also use these woods for forging along with the Manson Branch.

Animal species (or their signs) observed on site included robin (*Turdus migratorius*), rabbit (*Sylvilagus floridanus*), white-tailed deer (*Odocoileus virginianus*), beaver (*Castor canadensis*), frog (*Rana sp.*), black snake (*Coluber constrictor*), and raccoon (*Procyon lotor*).

Based on the results of previous studies indicating volatile organic compounds (VOCs) in soil and in seep water, there are potentially complete on-site exposure pathways by which ecological receptors may be exposed. Surface soil exposures should be limited because of the industrialized nature of the site and because buildings and pavement cover much of the plant property where surface soil contamination has been detected.

Ponded seep water on the slope above the west bank of Manson Branch is a more likely potential exposure medium for plants and animals at the site. Receptors may be exposed by direct contact with VOC-contaminated seep water, through ingestion of seep water, and by ingestion of food items such as seeds, vegetation, or insects growing in seep water. However, VOCs generally do not significantly bioaccumulate within the food chain. The ecological receptors with the largest potential for exposure are semi-aquatic plants, non-migratory animals, or animals with small home ranges which feed on-site. Avian predators could also be exposed through the ingestion of prey items. However, considering the inherently volatile nature of the VOCs detected, there is little to no concern for food chain bioaccumulation.

Based on the most likely exposures at this site, three receptors were selected to represent mammalian and avian receptors. These receptors were the short-tail shrew, the raccoon, and the northern bobwhite. The receptors are assumed to ingest seep water as drinking water. They are also assumed to ingest some soil during normal feeding activities which consist of insects/invertebrates, plants, and/or potentially other mammals and birds. Reptiles and plants were not included in this SLERA. Additional assessment endpoints may be introduced if the SLERA indicates that further assessment steps need to be performed: like the performance of an Ecological Risk Assessment (ERA).

5.4.3 Ecological Constituents of Potential Concern

The current ground-water potentiometric surface maps indicate the flow direction of ground water in the Uppermost water-bearing zone is to the east toward Manson Branch while ground water in the Intermediate water-bearing zone flows to the southwest. Seeps that are the surface expression of ground water discharge from the Uppermost water-bearing zone are located on the slope above the west bank of Manson Branch. These seeps have been sampled since 2000 to identify which, if any, constituents were present in seep water. Five VOCs were detected in seep samples collected in 2004: 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene, 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), and vinyl chloride. The maximum detected concentrations in seep water were compared to ecological screening criteria for surface water: USEPA Region 4 Freshwater Surface Water Screening Values (USEPA, 2001), the Georgia Instream Surface Water Criteria (GA DNR, 2004), and the Oak Ridge National Laboratory (ORNL) Toxicological Benchmarks for surface water (Suter and Tsao, 1996) (Table 5.1). Based on the comparison to screening values, 1,1-DCE, 1,1,1-TCA, and TCE were selected as ecological constituents of potential concern (ECOPCs) for seep waters. Surface water samples from Manson Branch were collected in 2000 and 2003 and analyzed for VOCs. No VOCs were detected in these surface water samples. Therefore, exposure pathways for surface water are incomplete.

The maximum detected concentrations in surface soil (0-1 foot) that were not collected from beneath buildings were compared to ecological soil screening criteria. Three VOCs were detected in surface soil: isopropylbenzene, tetrachloroethene, and trichloroethene. The criteria considered included Region 4 ecological soil screening values (USEPA, 2001) and the Dutch Ministry values that were updated in 2000 (Dutch Ministry, 2000). Because the 2000 Dutch Ministry values are more current than the 1994 Dutch Values referenced by Region 4 as screening values, the 2000 Dutch Ministry values were selected as the appropriate soil screening criteria for the Thermo King Site. No soil screening value was available for isopropylbenzene, so the value for ethylbenzene was used as a surrogate. One ECOPC, tetrachloroethene (PCE), was identified as exceeding its screening value (Table 5.2). Trichloroethene was maintained as an ECOPC in soil due to the selection of trichloroethene as an ECOPC in ground water.

For the purpose of the SLERA, which is performed using conservative assumptions, the maximum surface soil concentrations of soil samples collected from non-paved and non-building covered areas of the site which include samples collected in the vicinity of the slope between the plant parcel and Manson Branch were used to estimate risk.

5.4.4 Fate and Transport Mechanisms

Constituents from Thermo King manufacturing operations and former pond areas have migrated to ground water, to the Uppermost water-bearing zone. Ground water in the Uppermost water-bearing zone flows to the west, ultimately discharging as interflow seepage above Manson Branch. While seep water and surface soils contain detectable levels of VOC constituents, VOCs have not been detected in surface water samples collected from Manson Branch. These findings suggest that evaporation and other attenuation mechanism in the seeps and downslope interflow zone are protective of Manson Branch water quality.

Water from the Uppermost water-bearing zone may be connected to that in the Intermediate zone in the slope area above the west bank of Manson Branch through thinned (and/or breached) zone in the clay strata that separates these two zones. If so, a downward gradient may carry contaminants in the Uppermost zone into the Intermediate zone where flow is to the southwest. However, site studies described in this report show that contaminants in the Uppermost and Intermediate water-bearing zones do not migrate off-site.

5.4.5 Mechanisms of Toxicity

The mechanisms of ecotoxicity for constituents detected in surface soil and seep water vary depending on the chemical and the receptor species being evaluated. Wildlife ingestion of and direct contact with many of the constituents may result in mortality, decreased reproductivity, and/or decreased growth. Ingestion and direct contact may also result in internal and/or external lesions, sometimes resulting in carcinogenic effects, adverse neurological effects, or impaired hematopoietic, hepatic, or renal function.

5.4.6 Exposure Pathways

The identification of exposure pathways is necessary for the completion of the conceptual site model for a site (USEPA, 1997). Due to diverse life-cycle characteristics, wildlife exposure to contaminants in the soil and seep water varies depending upon the species. Mammals, birds, and other species that forage in the vicinity of the site may be exposed to constituents at concentrations exceeding screening levels. Terrestrial wildlife species may be exposed via ingestion, dermal contact, and the food chain. Potential wildlife exposure pathways are summarized in Figure 5.1.

5.4.7 Assessment Endpoints

Assessment endpoints identify the ecological values in need of protection (USEPA, 1997). The assessment endpoints for this screening level ERA are intended to encompass the wildlife receptors most likely to be exposed to and impacted by contaminants. Therefore, the specific assessment endpoints identified:

1. Survival, growth, and reproduction of terrestrial birds that contact surface soil and seep water at the site
2. Survival, growth, and reproduction of mammals that contact seep water and surface soils at the site.

A possible additional assessment endpoint could be the aquatic habitat (i.e., Manson Branch) which is topographically down gradient of the seeps. However, ECOPCs were not detected in surface water of Manson Branch and aquatic endpoints will not be discussed further in this report.

The receptors used to represent surrogate species for assessment endpoint 1 is the northern bobwhite and for assessment endpoint 2 are the short-tailed shrew and the raccoon. Rationales for selection are provided below.

Short-tailed shrew – Small mammals are the most likely receptors to be exposed to the surface soil and seep water at the site. The short-tailed shrew may be present at the site and represents lower trophic-level mammalian species which have a relatively small home range. These mammals may burrow in the soil and consume constituents via incidental ingestion during burrowing and ingestion via the food chain. The shrew is primarily an insectivorous mammal.

Raccoon – This specie represents a higher trophic-level mammalian species than the shrew and may be exposed to contaminants via incidental ingestion of seep water and surface soil and ingestion via the food chain. The raccoon would likely forage in the forested area in the central and eastern portion of the site. The raccoon is an herbivorous mammal, with a notable portion of its diet consisting of insects.

Northern bobwhite (quail) – Seed eating and insectivorous birds are likely to forage in the forested area in the central and eastern portion of the site. In order to provide a conservative SLERA, an herbivorous

bird, with a notable portion of its diet consisting of insects, was selected as a surrogate specie. Quail may be exposed to constituents via incidental ingestion of soil and seep water and ingestion via the food chain.

5.5 SCREENING-LEVEL ECOLOGICAL EFFECTS ASSESSMENT

The ecological effects evaluation consists of the compilation of toxicity information in the form of toxicological benchmarks. The toxicological benchmarks are used during the risk calculation phase to estimate risk to ecological receptors.

Toxicity information is available from various sources. However, this assessment depends primarily on ecotoxicity benchmarks developed by Sample et al (1996) for the evaluation of soil ingestion by terrestrial wildlife. Available toxicity information includes the lethal dose causing 50 percent mortality to the test population (LD_{50}), NOAELs for test species, and lowest observed adverse effects levels (LOAELs) for test species. These toxicological benchmarks refer to the dose the test species receives and the associated effect. The NOAEL is the preferred toxicity value for the preliminary ecological effects evaluation.

Each available study is evaluated for applicability as recommended by USEPA's Ecological Risk Assessment Guidance for Superfund (USEPA, 1997). As the assessment endpoints are reproduction and mortality, these endpoints, although not always available, are preferred over other endpoints. In addition, test parameters are considered. Long-term (chronic) studies are preferred to medium-term (subchronic) studies, which are preferred to short-term (acute) studies. The available toxicological information for the COPCs is presented in Tables 5.3, 5.4, and 5.5. Test duration, test type, effects observed, and references are also provided in these tables.

Derivation of toxicity reference values (TRVs) from toxicological benchmarks is necessary to estimate risk to ecological receptors. TRVs are toxicological benchmarks for laboratory test species extrapolated to represent receptor species. A body weight extrapolation was applied to the toxicological benchmarks (in the form of NOAELs) to represent TRVs. The following formula (Sample et al, 1996) was used to extrapolate toxicological benchmarks for the test species to TRVs for the receptor species:

$$NOAEL_1 = NOAEL_2 (BW_2/BW_1)^{1/4}$$

where: $NOAEL_1$ = No observed adverse effects level for the receptor species
$NOAEL_2$ = No observed adverse effects level for test species
BW_1 = Body weight for the receptor species
BW_2 = Body weight for the test species (obtained from Sample et al, 1996)

5.6 SCREENING-LEVEL PRELIMINARY EXPOSURE ESTIMATE

The preliminary exposure estimate is the phase where exposures are quantitatively estimated and/or quantitatively described (USEPA, 1997). This step allows estimates of risk or predictions of adverse effects to wildlife species potentially exposed to the ECOPCs to be made.

The food chain model presented in Figure 5.2 illustrates the various wildlife trophic levels at the Site. Figure 5.1 presents the Conceptual Site Model (CMS) for the site. The CSM includes terrestrial and avian receptors and is based on the food chain model. Ecological receptors may be exposed to contaminants directly or through the food chain.

This SLERA incorporates conservative exposure assumptions (USEPA, 1997). Exposure assumptions for the surrogate species are summarized on Tables 5.6, 5.7, and 5.8. Typically, a SLERA is performed using conservative assumptions for exposure to contaminants. The site-foraging frequency is assumed to be 100 percent and exposure frequency is assumed to be 1. Body weight and ingestion rates are consistent with those used for the derivation of reference toxicity values (i.e., those used by Sample et al., 1996).

5.7 SCREENING-LEVEL ECOLOGICAL RISK CHARACTERIZATION

The screening-level ecological risk characterization is based upon screening ecotoxicity benchmarks and food-chain modeling. Food-chain modeling was conducted to evaluate potential combined exposures including potential exposures via ingestion of food. Hazard quotients are the resultant product of food-chain modeling and a comparison with screening-level ecotoxicity benchmarks. Hazard quotients less than the threshold value of 1 are considered indicative that adverse effects are unlikely (USEPA, 1997). The screening-level risk characterization provides a basis for the scientific management decision point at which it is determined that: (1) ecological threats are negligible; or (2) a less conservative, LOAEL-based ecological risk assessment should be completed to determine whether a risk realistically exists; or (3) whether a detailed Ecological Risk Assessment is needed (USEPA, 1997).

As indicated in the preliminary problem formulation, a variety of surrogate species are included in this assessment. The remainder of this section addresses the screening-level risk characterization results and food-chain modeling for the short-tailed shrew, the raccoon, and the Northern bobwhite.

5.7.1 Short-tailed Shrew, Raccoon, and Northern Bobwhite (Quail) Risk Characterization

Shrews, raccoons, and quail represent a variety of species, which may be exposed to constituents in seep water and surface soil at the TK-Louisville site. Though these animals most likely forage in and around Manson Branch, no ECOPCs were detected in Manson Branch surface water samples. 1,1-DCE, 1,1,1-TCA, and TCE are identified as ECOPCs for seep water exposures and PCE is identified as a ECOPC for surface soil exposures (Tables 5.1 and 5.2).

Food-chain modeling of COPCs for the shrew, raccoon, and Northern bobwhite are provided on Tables 5.9, 5.10, and 5.11, respectively. These calculations utilize species-specific exposure information and chemical-specific toxicity information to yield risk estimates. In order to evaluate risk to ecological receptors, the potential intake of constituents from direct and indirect exposure routes is estimated. The model for this purpose is adapted from Ecological Assessment of Hazardous Waste Sites (Maughan, 1993). The intake estimates for short-tailed shrew is provided on Table 5.9, for the raccoon on Table 5.10, and for the northern bobwhite on Table 5.11.

Risk was estimated for the short-tailed shrew, the raccoon, and the Northern bobwhite according to the Hazard Quotient (HQ) method. The HQ method compares the estimated exposure levels to the toxicity reference value (TRV) and is expressed as HQ = Intake / TRV. A HQ greater than 1 generally indicates a potential for adverse effects. However, due to the many uncertainties and conservative assumptions associate with the risk estimates, each HQ is interpreted for an overall risk recommendation. Tables 5.9 through 5.11 provide conservative NOAEL-based HQs that are based on the maximum site concentrations. The resultant NOAEL-based conservative hazard quotients are summarized below:

CONSERVATIVE NOAEL-BASED HAZARD QUOTIENTS

Species	1,1-DCE HQ	1,1,1-TCA HQ	PCE HQ	TCE HQ
Short-tailed shrew	0.0034	0.00035	0.038	1.3
Raccoon	0.0053	0.00052	0.0041	1.8
Northern bobwhite	0.0034	0.00035	0.003	1.2

The conservative NOAEL-based hazard quotients indicate that the shrew, raccoon, and quail HQs for the COPCs are less than 1, except for TCE whose maximum HQ is 1.8 (for the raccoon). This means that additional risk characterization should be performed in order to make an informed decision for TCE at this point.

5.7.1.1 Additional Risk Characterization for TCE

TCE risks are driven by the maximum TCE concentration which is located in Manson Branch Seep #2. So, the real question becomes, "What is the exposure point concentration that receptors are exposed to on a daily basis?" This question is answered by the *Ecological Risk Assessment Guidance for Superfund (EPA 540-R-97-006)* which states that the exposure point concentration is the mean concentration in a given media. The exposure point concentration for TCE is calculated for all seeps and individually for the seep Manson Branch #2. The TCE exposure point concentration for all seeps is 0.22 mg/L and the TCE exposure point concentration for seep Manson Branch #2 is 1.7 mg/L (Table 5.12). Risks were then calculated for each receptor for the highest TCE ecological exposure point concentration (1.7 mg/L for seep Manson Branch #2) which would be the concentration of ecological exposure, if this SLERA moved forward, in a formal ecological risk assessment (ERA). The soil concentration in these risk calculations remained at the maximum detected concentration due to the high number of non-detect concentrations in the soils data set. These risk calculations were performed to address the question, "Is an ERA really necessary for this site?" The following table is a summary of risks for all three receptors exposed to the exposure point concentration for seep Manson Branch #2 and the maximum detected soil concentration (Tables 5.13, 5.14, and 5.15):

NOAEL-BASED HAZARD QUOTIENTS FOR SEEP MANSON BRANCH #2

Species	TCE HQ
Short-tailed shrew	0.60
Raccoon	0.70
Northern bobwhite	0.47

5.7.1.2 Summary

The Manson Branch #2, the seep with the highest TCE concentrations, NOAEL-based hazard quotients using an ERAGS-based exposure point concentration, indicates that the shrew, raccoon, and quail HQs for TCE are less than 1. Thus, even though the maximum TCE concentration causes a risk level that exceeds an HQ of 1, adverse effects to small mammals and birds are not anticipated based on 1,1-DCE, 1,1,1-TCA, PCE, and TCE concentrations in seep water and soil at the site. Of the 45 TCE concentrations in the seeps, only one concentration (4.4 mg/L) from seep Manson Branch #2 in August 2004 was above a concentration that would pose an ecological risk. Seep Manson Branch #2 was sampled again in November 2004 and the concentration had decreased from 4.4 mg/L to a concentration of 0.93 mg/L. Given the information and calculations provided in this SLERA, ecological risks are negligible and no further assessment is required.

5.7.2 Uncertainties and Assumptions

Uncertainties are inherent to the risk-assessment process. Uncertainties can be identified, and in some cases, the bias toward the overestimation or the underestimation of risk can be identified, but usually not quantified. Numerous assumptions are made in order to conduct risk calculations, and many of the assumptions are overly conservative in order to evaluate the maximum likelihood for risk to wildlife receptors. In cases where the hazard quotients are very high or very low, interpretation of the results is easy. The following uncertainties were identified for the ecological risk assessment of the site:

- Biased Sampling: Soil samples were collected from locations in the plant parcel that were expected to yield the maximum detected concentrations of constituents. As such, this sampling approach results in an overestimation of risk.
- Maximum Concentrations: The maximum concentrations were used in the conservative calculation for estimating ingestion. These concentrations are presented on Tables 5.1 and 5.2. The use of the maximum detected concentrations results in an overestimation of risk.

- Bioconcentration Factors: Both the bioconcentration factor (BCF) for vegetation and the BCF for invertebrates were chemical specific. The BCFs for small mammals and birds for vinyl chloride were used as surrogates for the COPCs in this SLERA. Use of surrogate BCFs may result in an overestimation or underestimation of risk. Use of a regression equation to calculate vegetation bioconcentration factors may result in an overestimation or underestimation of risk.

- Use of a NOAEL as the toxicological benchmark: The NOAEL was used as the toxicological benchmark rather than the LOAEL. The use of a NOAEL is expected to result in an overestimation of risk.

- Exposure Parameters: The exposure parameters used for each of the receptor species were not specific to Louisville, Georgia and are related to locations of the underlying studies. Due to climatic differences, the use of these exposure parameters may result in either an overestimation or underestimation of risk. In addition, the most conservative feeding assumptions (i.e., receptor feeds at site 100 percent of the time all year long) are utilized in a SLERA which results in an overestimation of risks.

- Mean TCE Concentrations for Seep Manson Branch #2: Mean concentrations represent the exposure point concentration for estimating ingestion. This concentration is presented on Tables 5.12. The use of the appropriate exposure point concentration of samples results in a realistic estimation of risk.

5.7.3 Risk Summary and Interpretation of Ecological Significance

This section provides a risk summary and an interpretation of the ecological significance of estimated risk, to be used as a basis for the scientific management decision point which includes the SLERA. The risk summary is an integration of hazard quotient results with uncertainties to provide risk estimates. Risk estimates are the statements regarding the likelihood for adverse effects to occur for the individual species assessed (i.e., the surrogate species) and the species they represent (e.g., lower trophic- level insectivorous mammals). Following the risk summary, the risk estimates are discussed in perspective with ecosystem function and population-level impacts which may occur. Within this context, the ecological significance of the risk estimates is evaluated in order to provide input for the SMDP. The SMDP either suggests that the SLERA results support the conclusion that ecological threats are negligible (and no further action is required), or that the ERA should continue.

Risk Summary – HQs generated as part of the SLERA were less than 1 (Table 5.16). The following risk summaries are provided for the three surrogate receptor species:

- The SLERA for the short-tailed shrew indicated that adverse effects to the shrew are not expected based on constituent concentrations at the site. The cumulative NOAEL-based HQ calculated for the short-tailed shrew (1.4) was calculated using

conservative assumptions which tend to overestimate risk and was greater than the EPA's target HQ of 1 with TCE being the risk driver. However, additional risk characterization using EPA-based exposure point concentrations for the seep with the highest TCE concentrations using conservative assumptions resulted in a risk of 0.60, less than EPA's target HQ of 1.

- The SLERA for the raccoon indicated that adverse effects to the raccoon are not expected based on constituent concentrations at the site. The cumulative NOAEL-based HQ calculated for the raccoon (1.8) was calculated using conservative assumptions which tend to overestimate risk and was greater than the EPA's target HQ of 1 with TCE being the risk driver. However, additional risk characterization using EPA-based exposure point concentrations for the seep with the highest TCE concentrations using conservative assumptions resulted in a risk of 0.70, less than EPA's target HQ of 1.

- The SLERA for the Northern bobwhite (quail) indicated that adverse effects to quail are not expected based on constituent concentrations at the site. The cumulative NOAEL-based HQ for the Northern bobwhite (1.2) was calculated using conservative assumptions which tend to overestimate risk and was greater than the EPA's target HQ of 1 with TCE being the risk driver. However, additional risk characterization using EPA-based exposure point concentrations for the seep with the highest TCE concentrations using conservative assumptions resulted in a risk of 0.47, less than EPA's target HQ of 1.

In summary, risks from soil at this site are below a level of concern. Risks from seep water for the maximum detected concentration are slightly greater than EPA's benchmark value of 1, with a range of 1.2 to 1.8 (Table 5.16) driven by TCE concentrations. However, additional characterization of exposure for the seep with the highest average TCE concentrations (Manson Branch #2) showed that chronic exposure to water in seep Manson Branch #2 would not cause a concern for ecological receptors. Hazard quotients for TCE from seep Manson Branch #2 for the surrogate receptor species ranged between 0.47 and 0.70, which are below EPA's benchmark value of 1. Thus, ecological risks at this site are deemed negligible and no further ecological assessment is necessary.

6.0 RISK REDUCTION STANDARDS

To certify compliance under HSRA, a Site listed on the Hazardous Site Inventory (HSI) must meet an applicable soil and/or ground-water RRS specified under the HSRA Rules. The RRS are based on property use (i.e., residential or non-residential) and, when applicable, site-specific conditions. Types 1 and 2 RRS are available for residential or non-residential sites; Types 3 and 4 RRS are available only for non-residential sites, with Type 4 standards incorporating site-specific exposure parameters; Type 5 RRS allow, where application of Types 1 through 4 standards is "not appropriate under present circumstances," the use of measures to control the regulated substances on the property where the regulated substances are located.

The Thermo King facility has been operating at this location since 1965 and it is unlikely that the site will be used in the future for residential purposes. Type 3 (default, non-residential) and Type 4 (site-specific, non-residential) RRS are therefore available for the site. However, because a more restrictive RRS may be applied to a site (i.e., a non-residential property may be shown to comply with a residential standard), Types 1 and 2 RRS were also evaluated for soils. The exposure parameters used in the RRS equations are discussed in the following two sections. The toxicity values used to calculate the RRS are provided in Appendix K (Table K-1). The RRS for groundwater are summarized in Table 6.0 and the RRS for soils are summarized in Table 6.1. The supporting tabulations are presented in Appendix K, Tables K-1 through K-7. Table 6.2 summarized the soil to water leaching evaluation data for trichloroethene and 1,1,1-trichloroethane. Figure 6.0 presents a map showing the locations where soil and ground-water constituent concentrations do not meet a RRS.

6.1 RISK REDUCTION STANDARDS FOR GROUND WATER (TYPES 1-4)

Six HSRA-regulated substances were detected at concentrations exceeding detection limits in ground-water samples collected from the Site. The highest concentrations detected were compared to the Types 1 and 3 RRS presented in Table 1, Appendix III of the HSRA Rule to determine which regulated substances required further evaluation. Concentrations of four regulated substances exceeded the Types 1 and 3 RRS for ground water. Type 2 and 4 RRS were then calculated for the six detected constituents.

Type 2 RRS were calculated for residential children and adults and Type 4 RRS were calculated for on-site industrial workers. As discussed previously, the ground water at the site is not used as a drinking

water source. The private and municipal wells in the area have been sampled and site constituents have not been detected. Based on the location of the site, the hydrogeologic properties of the site and surrounding area, and the potential future use of the site, there is no reasonable likelihood for site ground water to be used as a future drinking water supply and the drinking water exposure pathways are considered to be incomplete (i.e., there is no exposure). However, to develop the soil leaching criteria, Type 2 RRS for residents were developed assuming the adult resident ingests 2 liters and the child resident ingests 1 liter of on-site ground water per day while residing at the site for a period of 30 and 6 years, respectively. Type 4 RRS for on-site industrial workers were developed assuming the worker ingests 1 liter of on-site ground water per day while working at the site over a period of 25 years.

The Type 2 and Type 4 exposure scenarios are based on default USEPA exposure assumptions. The following table lists the exposure parameters used.

EXPOSURE PARAMETERS

Parameter	Type 2 Exposure Scenario for Future On-Site Residents	Type 4 Exposure Scenario for Current and Future On-Site Industrial Worker
Exposure Frequency (days/year)	350	250
Exposure Duration (years)	30- adult; 6-child	25
Ingestion Rate (L/day)	2-adult; 1- child	1
Averaging Time for Noncarcinogens (years)	30–adult; 6-child	25
Averaging Time for Carcinogens (years)	70	70

The calculated RRS for assumed ground-water exposures are presented in Table 6.0. Three of the detected constituents do not comply with the Type 4 RRS for ground water: 1,1,1-trichloroethane, 1,1-dichloroethene, and trichloroethene.

It is important to note that these exposure assumptions are very conservative. Ground water from the Uppermost and Intermediate water-bearing zones is not used for potable, agricultural, or industrial purposes. No future residential development is anticipated. Therefore, it is unlikely that any human receptors will be exposed to site ground water.

6.2 RISK REDUCTION STANDARDS FOR SOIL (TYPES 1-4)

Twelve HSRA regulated substances, primarily 1,4-dioxane and chlorinated VOCs (1,1-dichloroethene: cis-1,2-dichloroethene; tetrachloroethene; 1,1,1-trichloroethane; and trichloroethene) were detected in collected soil samples at concentrations above their respective detection limit. Type 1 RRS were calculated for these constituents based on the criteria provided in Section 391-3-19-.07(6)(c) of the HSRA rules. The maximum detected concentration of each constituent was then compared to its respective Type 1 RRS to determine which constituents required further evaluation. Ten of the 12 detected constituents comply with their respective Type 1 RRS. Type 2 RRS were calculated for the two remaining constituents (1,4-dioxane and trichloroethene) using default residential exposure parameters provided in Georgia EPD's Question and Answer Form RAU-96-2: Site Specific Exposure Factors. The maximum detected concentrations of the two remaining constituents were then compared to their respective Type 2 RRS. These two regulated substances (1,4-dioxane and trichloroethene) also exceeded their respective Type 2 RRS as shown on Table 6.1.

Type 3 RRS for surface and subsurface soils were then calculated using the default, non-residential exposure parameters provided in Appendix III, Table 3 of HSRA. The maximum detected concentrations of 1,4-dioxane and trichloroethene in surface and subsurface soils exceeded their respective Type 3 RRS for surface and subsurface soils (see Table 6.1).

The default exposure parameters used by EPD for Type 3 and Type 4 RRS are based on reasonable maximum exposures (RME) as defined by USEPA and include "high end" exposure parameters for the subject population. The following table lists the exposure parameters used.

SITE-SPECIFIC PARAMETER VALUES

Parameter	Type 3 and 4 Exposure Scenarios for Current and Future On-Site Industrial Worker
Exposure Frequency (days/year)	250 (a)
Exposure Duration (years)	25 (a)
Ingestion Rate of Soil (mg/day)	50 (a)
Inhalation Rate of Air (m^3/day)	20 (a)
Particulate Emission Factor (m^3/kg)	4.63×10^9 (a)
Averaging Time for Noncarcinogens (years)	25 (a)

a) Default value from Appendix III, Table 3 of HSRA

Although a default exposure frequency of 250 days per year was used for the non-residential RRS, the site-specific exposure frequency is expected to be less. Based upon information received from Ms. M.M. Clark, of the Thermo King Human Resource Department, the on-site plant employees work eight hours each day and five days each week, and are typically absent for 5 to 30 days of vacation and 10 holidays each year. The employees also take an average of 3.3 incidental days per year. Therefore, days at work ranges from 217 to 242 days per year, with the average being 229 days per year. Per EPD's request received in a meeting on May 4, 2004, the default value of 250 days was used as the long-term site-specific exposure frequency for the Type 4 RRS calculations. A soil ingestion rate of 50 milligrams per day (mg/day), an exposure duration of 25 years, and an air inhalation rate of 20 cubic meters per day (m^3/day) were used to calculate the Type 3 and Type 4 industrial on-site worker RRS for soil. These values are from Appendix III, Table 3 of HSRA and the Georgia EPD Risk Assessment Unit Question and Answer Form for Site-Specific Exposure Factors (USEPA, 1996) and represent default assumptions for non-residential exposure. A complete summary of the Type 3 and 4 RRS for soil is presented in Table 6.1.

Using the site-specific ground-water exposure assumptions as outlined in Section 6.1, Type 2 and 4 ground-water RRS were calculated for constituents detected in soil. These ground-water Type 2 and 4 RRS were in turn used to back-calculate to an acceptable soil concentration for protection of ground water using the USEPA Soil Screening Guidance (SSG) Soil/Water Partition Equation for organic and inorganic compounds (USEPA, 1996). Soil-water partition coefficients for site constituents were calculated using the USEPA SSG's organic carbon partition coefficients(K_{oc}s) and fraction of organic carbon in soil (f_{OC}) equal to 0.02 (Georgia HSRA Rules; Georgia EPD, 2000). Additional parameters used to calculate an allowable soil concentration are listed in the HSRA Rule and/or in the USEPA SSG. The parameters used in the calculations are listed in Table K-6.

The approach used for TCE in soil was not based on the SSG equation. The analytical results from the total and SPLP VOC concentrations were used to estimate a concentration of trichloroethene in soil that would not adversely impact groundwater quality. The maximum total trichloroethene result from analysis of the Kd study samples was 1800 µg/kg (1.8 mg/kg) (Table 6.2). Equation 10 of the Soil Screening Guidance: User's Guide (page 29) defines the target soil leachate concentration as being the MCL x DF (dilution factor) and in this instance, where each of the five "source" areas are less than 0.5 acres, the default dilution factor is 20 (Soil Screening Guidance: User's Guide (page 31). Therefore, the calculated target soil leachate concentration is 20 x MCL (0.005 mg/l) = 0.100 mg/l. The soil leachate concentration

by the SPLP test for the sample having a total trichloroethene concentration of 1.8 mg/kg was 0.0072 mg/l, well below the target concentration of 0.100 mg/l. EPD approved the Type 4 RRS trichloroethene leaching concentration of 1.8 mg/kg in their letter of January 19, 2007.

Type 1 and Type 3 soil RRS already incorporate a consideration for potential leaching from soil to groundwater. For the Type 2 and Type 4 soil RRS, the lower of the direct exposure and soil-to-groundwater RRS were selected as the overall Type 2 or Type 4 RRS. This selection hierarchy is presented in Tables K-3 and K-4.

In evaluating the distribution of TCE in soil, it was noted that concentrations of TCE greater than the direct contact Type 4 value (1.3 mg/kg) were all located beneath the building foundation and that direct contact with these impacted surface soils is unlikely. Therefore, the Type 4 leaching RRS of 1.8 mg/kg, rather than the direct contact value of 1.3 µg/kg, was selected as the goal for all soils under the building foundation. The soil beneath the building may be considered a possible Type 5 scenario in planning subsequent Corrective Actions.

Site concentrations were compared to the non-residential soil RRS to determine the compliance status for the site. 1,4-Dioxane and trichloroethene in a limited area under the manufacturing building do not comply with Type 1, 2, 3 or 4 RRS. The areas that do not comply with compliance with Type 4 soil RRS are shown on Figure 6.0.

6.3 COMPARISON OF RISK REDUCTION STANDARDS WITH DETECTED CONCENTRATIONS

6.3.1 Soil

As previously discussed, the Site meets Types 1, 2 and/or 3 RRS criteria for 10 of the 12 constituents detected in soil. The maximum 1,4-dioxane and trichloroethene concentrations do not meet the Type 4 RRS. The locations and depths where soils constituent concentrations exceeded RRS are summarized below.

Substance	Surface Soil Sampling Location
1, 4-Dioxane	SO-AOC1-1, HA-2, Kd-1
Trichloroethene	SO-AOC3-2

Substance	Subsurface Soil Sampling Location
1, 4-Dioxane	Kd-1 (4 ft), Kd-2 (8 ft), Kd-3 (3 ft), Kd-3 (4 ft)
Trichloroethene	Kd-2 (8 ft)

Figure 6.0 indicates the locations were soil samples with concentrations of 1,4-dioxane and trichloroethene exceed Type 1 through Type 4 RRSs are located beneath the plant building, in the area of former degreasers. 1,4-Dioxane has not been detected in ground water at the site and the depth to ground water is approximately 40 feet below the building floor slab.

6.3.2 Ground Water

As previously discussed, Type 4 RRS were calculated for six constituents detected in site ground water (Table 6.0). Two of the constituents (chloroform and toluene) complied with Type 1 and 3 RRS. The four constituents (1,1,1-trichloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene; and trichloroethene) that exceeded the Types 1 and 3 RRS also exceeded the Type 2 RRS. The four remaining constituent concentrations in ground water were compared to the on-site industrial worker Type 4 RRS. The detected concentrations of cis-1,2-dichloroethene meet the Type 4 RRS (Table 6.0). The detected concentrations of the remaining three constituents (1,1,1-trichloroethane; 1,1-dichloroethene; and trichloroethene) did not meet the Type 4 RRS. Based on this comparison, the exceedances occurred at the following locations for one or more of the following constituents and are shown on Figure 6.0.

Constituent	Monitoring Well
1,1,1-Trichloroethene	GW-AOC 1-1
1,1-Dichloroethene	GW-AOC 1-1, GW-AOC 3-2, GW-AOC 8-2
Trichloroethene	MW-3, MW-5, MW-10, MW-14, MW-19, GW-E-2, GW-E-3, GW-E-4, GW-E-5, GW-E-7, GW-E-8, GW-E-9, GW-E-10, GW-E-11, GW-E-12, GW-E-13, GW-E-14, GW-E-15, GW-E-16, GW-AOC1-1, GW-AOC2-1, GW-AOC 3-1, GW-AOC 3-2, GW-AOC 8-1, GW-AOC 8-2, GW-AOC 10-1, SB-113, SB-114, SB-115, SB-118

7.0 FINDINGS AND CONCLUSIONS

The findings and conclusions of this Compliance Status Report are summarized as follows:

- The Thermo King Corporation site (HSI No. 10702) is located on approximately 111 acres at 1430 Highway 24 East, Louisville, Jefferson County, Georgia. Thermo King began manufacturing at this location in 1965 and continues to the present to manufacture units to refrigerate cargo container boxes, tractor-trailers, and buses.

- Thermo King used trichloroethene and later 1,1,1-trichloroethane (containing 1,4-dioxane as a stabilizer) in three degreasers. The solvents were stored in outside aboveground storage tanks. Investigations have shown that releases of VOCs to soil and ground water have likely occurred in the areas of the degreasers, the outside aboveground storage tank area and in the areas of the former north and south settling ponds.

- Coastal Plain sediments with gradational strata ranging from fairly clean sands to silts and clays, and some limestone lenses, underlie the site to an investigated depth of 177 ft. Three sandy water-bearing zones were identified; an Uppermost water-bearing zone is generally present between elevation 270 to 260 feet NAVD (55 and 65 feet bgs), and an Intermediate water-bearing zone is generally present between elevation 245 and 220 feet NAVD (80 and 105 feet bgs), and a Lower water-bearing zone is present at elevation 184 to 174 feet NAVD (136 to 147 feet bgs). The Uppermost water-bearing zone is a brown sandy stratum and appears to be perched above a stratum of tan and blue-gray clays while the Intermediate water-bearing zone is a blue-gray clayey sand and appears to be confined below this same clay stratum. The Lower water-bearing zone is a greenish-gray clayey silty sand and is confined below a greenish-gray clay stratum that is below the Intermediate zone. The water table in the perched Uppermost water-bearing zone is approximate 30 feet above that in the Intermediate water-bearing zone and the water level in the Lower water-bearing zone is approximately 12 lower than the water level in the Intermediate water-bearing zone. Ground water in the Uppermost water-bearing zone flows at a very shallow gradient to the east and discharges as seeps on the steep eroded slope above the west bank of Manson Branch. Ground water in the Intermediate water-bearing zone flows at a similar very shallow gradient to the southwest toward the Ogeechee River, approximately 1.5 miles from the site. The direction of flow in the Lower water-bearing zone was not determined, but the ground-water elevation in this zone is higher than the elevation of the Ogeechee River. There is a downward gradient from the Uppermost to the Intermediate and a downward gradient between the Uppermost and Intermediate to the Lower zone.

- VOCs have been detected in surface (<2 feet bgs) and subsurface soils, primarily in areas of former solvent use and handling. The horizontal extent of these constituents has been delineated, and is indicated to be confined to on-site soils west of Manson Branch. Vertically, constituents in soil extend down to the ground water in the Uppermost water-bearing zone.

- VOCs have been detected in the ground water in the Uppermost water-bearing zone above the perching/confining tan and blue gray clay stratum from the area of the manufacturing building east to discharge as seeps on the steep eroded slope above the west bank of Manson Branch.

- VOCs have been detected in the ground water in the Intermediate water-bearing zone, in blue-gray sands below the tan and blue-gray clays above which the Uppermost water-bearing zone is perched. The VOCs, primarily trichloroethene, have been detected only in the area to the east and west of the former south settling pond (wells MW-14 and MW-20), beneath an area of the Uppermost water-bearing zone where trichloroethene has been detected at higher concentrations.

- The vertical extent of VOCs in ground water below the Intermediate zone has been determined. Triple-cased monitoring well MW-24 was installed between wells MW-5 and MW-14/MW-19 to determine the vertical extent of VOCs in ground water. Monitoring well MW-24 screens the Lower water-bearing zone and VOCs were not detected in the ground-water samples collected from this zone. The vertical extent to VOCs in ground water does not extend below the Intermediate water-bearing zone.

- VOCs were detected in water samples collected from seeps where VOC-impacted ground water from the Uppermost water-bearing zone discharges on the eroded slope above Manson Branch. Surface water samples collected directly from Manson Branch and from monitoring wells installed immediately east of Manson Branch do not contain VOCs.

- Current and future facility workers are the most likely human receptors, via inhalation of fugitive dust, vapor emissions, or incidental ingestion, to VOCs in on-site soils. Off-site soils have not been impacted. The plant obtains its drinking water supply from the municipal water systems and no VOCs have been detected in analyses of water samples from surrounding City of Louisville or private wells. Exposure to VOC-impacted ground water is not a present threat to drinking water supplies.

- Ecological receptors may be exposed to VOCs through contact with or ingestion of VOC-contaminated seep water or from ingestion of seeds, vegetation or insects contaminated by VOCs in ground water. These ecological receptors may include semi-aquatic plants, non-migratory animals or animals with small home ranges and avian predators that feed on items produced in the area of the seeps. A screening level ecological risk assessment (SLERA) was performed in late 2004 at the request of the Georgia EPD. The SLERA indicated the risk from seep water and soil for the TK site are below the USEPA's benchmark value and; thus, ecological risks at this site are deemed negligible and no further ecological assessment is necessary.

- Risk Reduction Standards were calculated for soil and ground water. Five soil-sampling locations had concentrations of 1,4-dioxane that exceeded the Type 1 through Type 4 RRSs. These are located beneath the west and east sides of the plant building, in the area of former degreasers. 1,4-Dioxane has not been detected in ground water at the site and the depth to ground water is approximately 40 feet below the building floor slab. The trichloroethene concentration at two soil-sampling locations beneath the west and east sides of the plant building, in the area of the former degreasers, exceeded the Types 1 through Type 4 RRS.

- VOC concentrations of 1,1,1-trichloroethane; 1,1-dichloroethene; and trichloroethene exceeded the Types 1 through Type 4 RRSs at approximately 30 ground-water sampling locations. Maximum concentrations were in the vicinity of the manufacturing building and the former south settling pond. The portion of the site that does not meet Types 1, 2, 3, or 4 Risk Reduction Standards for ground water is limited to the Thermo King property west of Manson Branch.

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Table 3.1: SUMMARY OF SOIL BORING DATA

Boring Number	Date Drilled	Installed By	Drilling Method	Total Depth (ft, bgs)	Ground Surface Elevation (ft NAVD)	Bottom of Boring Elevation (ft NAVD)	Purpose	Completion
SB-1	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	322.3	311.3	soil sampling	Grouted
SB-2	2/3/2000	Alliance Drilling/ ESC	Rotosonic	10	321.8	311.8	soil sampling	Grouted
SB-3	2/3/2000	Alliance Drilling/ ESC	Rotosonic	10	322.6	312.6	soil sampling	Grouted
SB-4	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	322.9	311.9	soil sampling	Grouted
SB-5	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	325.0	314.0	soil sampling	Grouted
SB-6	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	325	314.0	soil sampling	Grouted
SB-7	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	316.4	305.4	soil sampling	Grouted
SB-8	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	315.6	304.6	soil sampling	Grouted
SB-9	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	315.6	304.6	soil sampling	Grouted
SB-10	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	313.2	302.2	soil sampling	Grouted
GW E-1	9/26/2000	ESN/LAW	Direct push	55	331.5	276.5	soil & GW sampling	Grouted
GW E-2	9/26/2000	ESN/LAW	Direct push	56	337.6	281.6	GW sampling	Grouted
GW E-3	9/28/2000	ESN/LAW	Direct push	60	341.7	281.7	GW sampling	Grouted
GW-E-4	9/27/2000	ESN/LAW	Direct push	61	340.0	279.0	soil & GW sampling	Grouted
GW E-5	9/27/2000	ESN/LAW	Direct push	58	338.9	280.9	GW sampling	Grouted
GW E-6	10/3/2000	ESN/LAW	Direct push	64	338.7	274.7	GW sampling	Grouted
GW E-7	10/3/2000	ESN/LAW	Direct push	56	330.6	274.6	GW sampling	Grouted
GW E-8	10/4/2000	ESN/LAW	Direct push	54	331.6	277.6	GW sampling	Grouted
GW E-9	10/4/2000	ESN/LAW	Direct push	54	333.4	279.4	GW sampling	Grouted
GW E-10	10/5/2000	ESN/LAW	Direct push	53	332.8	279.8	GW sampling	Grouted
GW E-11	10/5/2000	ESN/LAW	Direct push	59	335.0	276.0	GW sampling	Grouted
GW E-12	10/5/2000	ESN/LAW	Direct push	54	336.4	282.4	GW sampling	Grouted
GW E-13	10/9/2000	ESN/LAW	Direct push	64	336.8	272.8	soil & GW sampling	Grouted
GW E-14	10/6/2000	ESN/LAW	Direct push	60	342.0	282.0	GW sampling	Grouted
GW E-15	10/11/2000	ESN/LAW	Direct push	65	344.3	279.3	GW sampling	Grouted
GW E-16	10/23/2000	ESN/LAW	Direct push	61	331.1	270.1	GW sampling	Grouted
GW E-17	10/26/2000	ESN/LAW	Direct push	79	343.2	264.2	GW sampling	Grouted
GW E-18	10/25/2000	ESN/LAW	Direct push	74	345.5	271.5	GW sampling	Grouted
GW E-19	10/25/2000	ESN/LAW	Direct push	78.5	346.4	267.9	GW sampling	Grouted
GW AOC1-1	10/31/2000	ESN/LAW	Direct push	62.5	341.1	278.6	soil & GW sampling	Grouted
GW AOC2-1	10/17/2000	ESN/LAW	Direct push	67	348.8	281.8	soil & GW sampling	Grouted
GW AOC3-1	10/30/2000	ESN/LAW	Direct push	59	341.2	282.2	soil & GW sampling	Grouted
GW AOC3-2	10/30/2000	ESN/LAW	Direct push	63.5	341.2	277.7	soil & GW sampling	Grouted
GW AOC8-1	10/10/2000	ESN/LAW	Direct push	62	340.5	278.5	soil & GW sampling	Grouted
GW AOC8-2	10/12/2000	ESN/LAW	Direct push	60	340.9	280.9	soil & GW sampling	Grouted
GW AOC9-1	10/19/2000	ESN/LAW	Direct push	62	340.0	278.0	soil & GW sampling	Grouted
GW AOC9-2	10/20/2000	ESN/LAW	Direct push	64	339.7	275.7	soil & GW sampling	Grouted
GW AOC10-1	10/12/2000	ESN/LAW	Direct push	64	332.8	268.8	soil & GW sampling	Grouted
STB-1	11/28/2000	Prosonic/LAW	Rotosonic	177	330.5	153.5	stratigraphy	Grouted
STB-2	3/14/2003	Prosonic/MACTEC	Direct push	12	257.2	245.2	stratigraphy	Grouted
STB-3	3/14/2003	Prosonic/MACTEC	Direct push	12.5	251.5	239.0	stratigraphy	Grouted
SB-101/MW-7	2/6/2003	Prosonic/MACTEC	Rotosonic	58	320.6	262.6	soil sampling and monitoring well	Completed as Monitoring Well MW-7
SB-102	1/21/2003	MACTEC	Direct push	41	323.2	282.2	soil sampling	Grouted
SB-103/MW-8	2/6/2003	Prosonic/MACTEC	Rotosonic	72	330.1	258.1	soil sampling and monitoring well	Completed as Monitoring Well MW-8
SB-104	1/21/2003	MACTEC	Direct push	48	331.1	283.1	soil sampling	Grouted
SB-105	1/22/2003	MACTEC	Direct push	42	324.3	282.3	soil sampling	Grouted
SB-106	1/23/2003	MACTEC	Direct push	46	331.5	285.5	soil sampling	Grouted
SB-107/MW-9	2/10/2003	Prosonic/MACTEC	Rotosonic	69	323.5	254.5	soil sampling and monitoring well	Completed as Monitoring Well MW-9
SB-108	1/24/2003	MACTEC	Direct push	50	328.5	278.5	soil sampling	Grouted
SB-109	1/23/2003	MACTEC	Direct push	33	307.0	274.0	soil sampling	Grouted
SB-110/MW-10	2/10/2003	Prosonic/MACTEC	Rotosonic	49.5	307.7	258.2	soil sampling and monitoring well	Completed as Monitoring Well MW-10
SB-111	1/22/2003	MACTEC	Direct push	37	315.4	278.4	soil sampling	Grouted
SB-112	1/23/2003	MACTEC	Direct push	41	322.8	281.8	soil sampling	Grouted
SB-113	2/3/2003	Prosonic/MACTEC	Rotosonic	78.5	321.6	243.1	soil & GW sampling	Grouted
SB-114	2/5/2003	Prosonic/MACTEC	Rotosonic	78.5	324.7	246.2	soil & GW sampling	Grouted
SB-115	3/13/2003	Prosonic/MACTEC	Direct push	37	300.5	263.5	soil & GW sampling	Grouted
SB-116	3/12/2003	Prosonic/MACTEC	Direct push	43.5	325.7	282.2	soil sampling	Grouted
SB-117	3/12/2003	Prosonic/MACTEC	Direct push	50	326.6	276.6	soil sampling	Grouted
SB-118	3/26/2003	Prosonic/MACTEC	Direct push	21	284.1	263.1	soil & GW sampling	Grouted

Table 3.1: SUMMARY OF SOIL BORING DATA

Boring Number	Date Drilled	Installed By	Drilling Method	Total Depth (ft, bgs)	Ground Surface Elevation (ft NAVD)	Bottom of Boring Elevation (ft NAVD)	Purpose	Completion
HA-1	3/27/2003	MACTEC	Hand auger	2.1	325.0	322.9	soil sampling	Grouted
HA-2	3/27/2003	MACTEC	Hand auger	2.1	325.0	322.9	soil sampling	Grouted
HA-3	3/27/2003	MACTEC	Hand auger	2.1	325.0	322.9	soil sampling	Grouted
HA-4	3/27/2003	MACTEC	Hand auger	1.9	325.0	323.1	soil sampling	Grouted
HA-5	3/27/2003	MACTEC	Hand auger	2.2	325.0	322.8	soil sampling	Grouted
HA-6	3/27/2003	MACTEC	Hand auger	2	325.0	323.0	soil sampling	Grouted
HA-7	3/27/2003	MACTEC	Hand auger	5	325.0	320.0	soil sampling	Grouted
HA-8	3/27/2003	MACTEC	Hand auger	0.5	325.0	324.5	soil sampling	Grouted
Kd-1	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-2	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-3	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-4	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-5	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-6	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	322	310	soil sampling	Grouted
Kd-7	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-8	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	16.0	325	309	soil sampling	Grouted
Kd-9	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-10	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	20.0	325	305	soil sampling	Grouted
Kd-11	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-12	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted

Notes:

NAVD North American Vertical Datum 1988
bgs below ground surface
ft feet
ESC Environmental Strategies Corporation
ESN Environmental Systems Network
LAW Law Engineering and Environmental Services
GW Ground water
Borings GW E-1 through GW AOC10-1 were surveyed using 1983 Georgia DOT datum
Borings Kd-1 through Kd-12 were not surveyed and their elevations are estimated from site topographic map.

PREPARED BY/DATE: JCB 1/18/07
CHECKED BY/DATE: RNO 2/13/07

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-1	SB-1	Soil	10-11	02/03/00	30.0	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-2	SB-2	Soil	1.5-3.5	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-3	SB-3	Soil	5-6	02/03/00	0.0	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-4	SB-4	Soil	8-9	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-5	SB-5	Soil	8-9	02/03/00	84.0	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-6	SB-6	Soil	0-10	02/03/00	NA	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-7	SB-7	Soil	7-8	02/03/00	54.0	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-8	SB-8	Soil	7-8	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-9	SB-9	Soil	8-9	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-10	SB-10	Soil	5-6	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
GW-E-1	SO-E-1	Soil	0-4	09/25/00	0	NA	NA	NA	NA	VOCs	SO-E-1 (0-2 ft) DPT
	SO-E-1	Soil	4-8	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	8-12	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	12-16	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	16-20	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	20-24	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	24-28	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	28-32	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	32-36	09/25/00	4	NA	NA	NA	NA	VOCs	Wet Soil at 34Ft, SO-E-1 (32-34) DPT
	SO-E-1	Soil	36-40	09/25/00	5	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	40-44	09/25/00	12	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	44-48	09/25/00	4	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	48-52	09/25/00	0	NA	NA	NA	NA	None	DPT
	GW-E-1	Groundwater	34	09/25/00	NA	6.36	0.260	20.6	5.5	VOCs	GW-E-1 (34) DPT
	GW-E-1	Groundwater	48	09/25/00	NA	NM	NM	NM	NM	VOCs	GW-E-1 (48) DPT, Boring terminated 55 ft
GW-E-2	GW-E-2	Soil	55	09/26/00	1	NA	NA	NA	NA	None	DPT, Boring terminated 56 ft
	GW-E-2	Groundwater	55	09/26/00	NA	6.36	0.172	25.1	67.5	VOCs	GW-E-2 (55) DPT
GW-E-3	GW-E-3	Soil	0-4	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	4-8	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	8-12	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	12-16	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	16-20	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	20-24	09/29/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	24-28	09/30/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	28-32	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	32-36	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	36-40	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	40-44	09/28/00	NM	NA	NA	NA	NA	None	DPT, Wet soil at 44 ft.
	GW-E-3	Soil	44-48	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	48-52	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	52-56	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	56-60	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Groundwater	44-48	10/02/00	NA	6.43	0.439	31.8	72	VOCs	GW-E-3 (44-48) DPT
	GW-E-3	Groundwater	52-56	10/02/00	NA	7.07	0.369	29.9	999	VOCs	GW-E-3 (52-55) DPT
	GW-E-3	Groundwater	56-60	10/02/00	NA	7.07	0.285	28.2	118	VOCs	GW-E-3 (56-60) DPT, Boring terminated 60 ft
GW-E-4	SO-E-4	Soil	0-4	09/27/00	3	NA	NA	NA	NA	VOCs	SO-E-4 (0-2) DPT
	SO-E-4	Soil	4-8	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	8-12	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	12-16	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	16-20	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	20-24	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	24-28	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	28-32	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	32-36	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	36-40	09/27/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	40-44	09/27/00	NM	NA	NA	NA	NA	VOCs	SO-E-4 (40-42) DPT
	SO-E-4	Soil	44-48	09/27/00	NM	NA	NA	NA	NA	None	Wet Soil at 44Ft. DPT
	SO-E-4	Soil	48-52	09/27/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	52-56	09/27/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	56-61	09/27/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-4	Groundwater	44-48	09/27/00	NA	4.51	0.076	17.5	989	VOCs	GW-E-4 (44-48) DPT
	GW-E-4	Groundwater	48-52	09/27/00	NA	4.67	0.085	17.9	999	VOCs	GW-E-4 (48-52) DPT
	GW-E-4	Groundwater	60-61	09/27/00	NA	6.54	0.219	21.6	32	VOCs	GW-E-4 (60-61) DPT, Boring terminated 61 ft
GW-E-5	GW-E-5	Soil	0-4	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	4-8	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	8-12	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	12-16	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	16-20	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	20-24	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	24-28	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	28-32	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	32-36	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	36-40	09/28/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	40-44	09/27/00	NM	NA	NA	NA	NA	None	Wet Soil at 42 Ft. DPT
	GW-E-5	Soil	44-48	09/27/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-5	Groundwater	40-44	09/28/00	NA	5.00	0.089	17.5	100	VOCs	GW-E-5 (40-44) DPT
	GW-E-5	Groundwater	44-48	09/28/00	NA	4.58	0.063	19.1	98	VOCs	GW-E-5 (44-48) DPT
	GW-E-5	Groundwater	54-58	10/10/00	NA	4.86	0.136	13.6	752	VOCs	GW-E-5 (54-58) DPT, Boring terminated 58 ft
GW-E-6	GW-E-6	Soil	0-6	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	6-10	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	10-15	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	15-20	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	20-22	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	22-24	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	24-26	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	26-40	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	40-44	10/03/00	NM	NA	NA	NA	NA	None	Wet Soil at 40 Ft. DPT
	GW-E-6	Soil	44-48	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	48-52	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	52-56	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	56-60	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	60-64	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Groundwater	40-44	10/03/00	NA	6.86	0.476	27.8	999	VOCs	GW-E-6 (40-44) DPT
	GW-E-6	Groundwater	52-56	10/03/00	NA	5.84	0.097	26.4	23.4	VOCs	GW-E-6 (52-56) DPT
	GW-E-6	Groundwater	56-60	10/03/00	NA	6.77	0.386	16.6	115	VOCs	GW-E-6 (56-60) DPT, Boring terminated 64 ft
GW-E-7	GW-E-7	Groundwater	31-35	10/03/00	NA	6.57	0.490	18.9	368	VOCs	GW-E-7 (31-35) DPT
	GW-E-7	Groundwater	35-39	10/03/00	NA	6.13	0.220	19.5	750	VOCs	GW-E-7 (35-39) DPT
	GW-E-7	Groundwater	48-52	10/03/00	NA	6.90	0.223	19.3	102	VOCs	GW-E-7 (48-52) DPT, Boring terminated 56 ft
GW-E-8	GW-E-8	Groundwater	40-44	10/04/00	NA	5.30	0.109	23.4	650	VOCs	GW-E-8 (40-44) DPT
	GW-E-8	Groundwater	44-48	10/04/00	NA	5.77	0.132	25.4	243	VOCs	GW-E-8 (44-48) DPT
	GW-E-8	Groundwater	50-54	10/04/00	NA	6.92	0.313	27.6	107	VOCs	GW-E-8 (50-54) DPT, Boring terminated 54 ft

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
GW-E-9	GW-E-9	Groundwater	38-42	10/04/00	NA	6.42	0.283	31.7	107	VOCs	GW-E-9 (38-42) DPT
	GW-E-9	Groundwater	44-48	10/04/00	NA	5.45	0.112	31.5	1140	VOCs	GW-E-9 (44-48) DPT
	GW-E-9	Groundwater	50-54	10/04/00	NA	6.90	0.283	29.0	500	VOCs	GW-E-9 (50-54) DPT, Boring terminated 54 ft
GW-E-10	GW-E-10	Groundwater	44-48	10/04/00	NA	5.27	0.143	26.0	999	VOCs	GW-E-10 (44-48) DPT
	GW-E-10	Groundwater	48-52	10/04/00	NA	5.85	0.144	25.4	80	VOCs	GW-E-10 (48-52) DPT, Boring terminated 53 ft
GW-E-11	GW-E-11	Groundwater	44-48	10/05/00	NA	5.11	0.226	24.1	83	VOCs	GW-E-11 (44-48) DPT
	GW-E-11	Groundwater	50-54	10/05/00	NA	6.34	0.179	25.8	79	VOCs	GW-E-11 (50-54) DPT
	GW-E-11	Groundwater	54-58	10/05/00	NA	6.93	0.241	24.7	112	VOCs	GW-E-11 (54-58) DPT, Boring terminated 59 ft
GW-E-12	GW-E-12	Soil	0-4	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	4-8	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	8-12	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	12-16	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	16-20	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	20-24	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	24-28	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	28-32	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	32-36	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	36-40	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	40-44	10/05/00	NM	NA	NA	NA	NA	None	Wet Soil at 40 Ft. DPT
	GW-E-12	Soil	44-48	10/05/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	48-54	10/05/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-12	Groundwater	40-44	10/05/00	NA	5.34	0.094	31.3	999	VOCs	GW-E-12 (40-44) DPT
	GW-E-12	Groundwater	44-48	10/05/00	NA	4.88	0.093	28.1	139	VOCs	GW-E-12 (44-48) DPT
	GW-E-12	Groundwater	50-54	10/06/00	NA	5.47	0.323	19.6	220	VOCs	GW-E-12 (50-54) DPT, Boring terminated 54 ft
GW-E-13	SO-E-13	Soil	0-4	10/09/00	<0.5	NA	NA	NA	NA	VOCs	SO-E-13 (0-4 Ft.) DPT
	SO-E-13	Soil	4-8	10/09/00	<0.5	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	8-12	10/09/00	5.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	12-14	10/09/00	7.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	14-16	10/09/00	7.0	NA	NA	NA	NA	VOCs	SO-E-13 (14-16 Ft.) DPT
	SO-E-13	Soil	16-18	10/09/00	7.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	18-20	10/09/00	2.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	20-22	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	22-24	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	24-28	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	28-32	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	32-36	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	36-40	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	38-40	10/09/00	<0.5	NA	NA	NA	NA	VOCs	SO-E-13 (38-40) DPT
	SO-E-13	Soil	40-44	10/09/00	NM	NA	NA	NA	NA	None	DPT, Soil wet at 44 ft
	SO-E-13	Soil	44-48	10/09/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	48-52	10/09/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	52-56	10/09/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	56-60	10/09/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-13	Groundwater	44-48	10/09/00	NA	4.51	0.102	17.2	794	VOCs	GW-E-13 (44-48) DPT
	GW-E-13	Groundwater	48-52	10/09/00	NA	4.63	0.091	18.6	313	VOCs	GW-E-13 (48-50) DPT
	GW-E-13	Groundwater	56-60	10/09/00	NA	6.71	0.258	20.8	362	VOCs	GW-E-13 (56-60) DPT, Boring terminated 64 ft
GW-E-14	GW-E-14	Groundwater	48-52	10/06/00	NA	6.15	0.186	28.4	216	VOCs	GW-E-14 (48-52) DPT
	GW-E-14	Groundwater	52-56	10/06/00	NA	5.63	0.104	27.4	210	VOCs	GW-E-14 (52-56) DPT
	GW-E-14	Groundwater	56-60	10/06/00	NA	5.66	0.121	28.3	552	VOCs	GW-E-14 (56-60) DPT, Boring terminated 60 ft
GW-E-15	GW-E-15	Groundwater	48-52	10/11/00	NA	5.76	0.130	17.6	960	VOCs	GW-E-15 (48-52) DPT
	GW-E-15	Groundwater	54-58	10/11/00	NA	5.04	0.092	17.5	425	VOCs	GW-E-15 (54-58) DPT
	GW-E-15	Groundwater	61-65	10/11/00	NA	6.88	0.240	19.5	966	VOCs	GW-E-15 (61-65) DPT, Boring terminated 65 ft
GW-E-16	GW-E-16	Groundwater	40-44	10/23/00	NA	4.47	0.106	21.2	118	VOCs	GW-E-16 (40-44) DPT
	GW-E-16	Groundwater	50-54	10/23/00	NA	6.44	0.118	23.1	345	VOCs	GW-E-16 (50-54) DPT
	GW-E-16	Groundwater	57-61	10/23/00	NA	NM	NM	NM	NM	VOCs	GW-E-16 (57-61) DPT, Boring terminated 61 ft
GW-E-17	GW-E-17	Groundwater	48-52	10/26/00	NA	6.07	0.075	16.4	30	VOCs	GW-E-17 (48-52) DPT
	GW-E-17	Groundwater	55-59	10/26/00	NA	5.00	0.060	25.3	278	VOCs	GW-E-17 (55-59) DPT
	GW-E-17	Groundwater	62-66	10/26/00	NA	6.33	0.261	24.3	999	VOCs	GW-E-17 (62-66) DPT, Boring terminated 79 ft
GW-E-18	GW-E-18	Groundwater	51-55	10/25/00	NA	6.37	0.158	27.8	123	VOCs	GW-E-18 (51-55) DPT
	GW-E-18	Groundwater	60-64	10/25/00	NA	6.09	0.146	27.1	91	VOCs	GW-E-18 (60-64) DPT
	GW-E-18	Groundwater	68-72	10/25/00	NA	6.31	0.186	22.6	154	VOCs	GW-E-18 (68-72) DPT, Boring terminated 74 ft
GW-E-19	GW-E-19	Groundwater	51-55	10/25/00	NA	5.07	0.048	19.9	999	VOCs	GW-E-19 (51-53) DPT
	GW-E-19	Groundwater	59-63	10/25/00	NA	5.07	0.049	21.9	999	VOCs	GW-E-19 (59-63) DPT
	GW-E-19	Groundwater	70-74	10/25/00	NA	6.84	0.304	24.5	843	VOCs	GW-E-19 (70-74) DPT, Boring terminated 78.5 ft
GW-AOC-1-1	SO-AOC-1-1	Soil	0-2	10/31/00	31.0	NA	NA	NA	NA	VOCs	SO-AOC-1-1 (0-2) DPT
	SO-AOC-1-1	Soil	4-6	10/31/00	42.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	8-10	10/31/00	44.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	14-16	10/31/00	310.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	18-20	10/31/00	71.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	24-26	10/31/00	180.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	29-31	10/31/00	>1000	NA	NA	NA	NA	VOCs	SO-AOC-1-1 (29-31) DPT
	SO-AOC-1-1	Soil	34-36	10/31/00	770.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	38-40	10/31/00	>1000	NA	NA	NA	NA	VOCs	Wet Soil at 40 Ft. SO-AOC-1-1 (38-40) DPT
	SO-AOC-1-1	Soil	44-48	10/31/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	48-52	10/31/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	52-56	10/31/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	56-60	10/31/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	60-62	10/31/00	NM	NA	NA	NA	NA	None	DPT
	GW-AOC-1-1	Groundwater	40-44	10/31/00	NA	6.15	0.176	25.0	999	VOCs	GW-AOC-1-1 (40-44) DPT
	GW-AOC-1-1	Groundwater	52-56	10/31/00	NA	5.93	0.130	26.5	47	VOCs	GW-AOC-1-1 (52-56) DPT
	GW-AOC-1-1	Groundwater	59-63	10/31/00	NA	6.81	0.276	25.6	77	VOCs	GW-AOC-1-1 (59-63) DPT, Boring terminated 62.5 ft
GW-AOC-2-1	SO-AOC-2-1	Soil	0-2	10/17/00	16.0	NA	NA	NA	NA	VOCs	SO-AOC-2-1 (0-2) DPT
	SO-AOC-2-1	Soil	4-6	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	8-10	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	14-16	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	18-20	10/17/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-2-1 (18-20) DPT
	SO-AOC-2-1	Soil	24-26	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	28-31	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	34-36	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	38-40	10/17/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-2-1 (38-40) DPT, Soil wet at 42 ft
	GW-AOC-2-1	Groundwater	42-46	10/17/00	NA	6.19	0.235	23.8	999	VOCs	GW-AOC-2-1 (42-46) DPT
	GW-AOC-2-1	Groundwater	52-56	10/17/00	NA	5.02	0.149	27.4	51	VOCs	GW-AOC-2-1 (52-56) DPT
	GW-AOC-2-1	Groundwater	62-66	10/17/00	NA	6.58	0.311	26.3	10	VOCs	GW-AOC-2-1 (62-66) DPT, Boring terminated 67 ft
GW-AOC-3-1	SO-AOC-3-1	Soil	0-2	10/30/00	8.0	NA	NA	NA	NA	VOCs	SO-AOC-3-1 (0-2) DPT
	SO-AOC-3-1	Soil	4-6	11/01/00	25.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	8-10	11/01/00	30.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	14-16	11/01/00	45.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	18-20	11/01/00	33.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	24-26	11/01/00	18.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	29-31	11/01/00	54.0	NA	NA	NA	NA	VOCs	SO-AOC-3-1 (29-31) DPT
	SO-AOC-3-1	Soil	34-36	11/01/00	14.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	38-40	11/01/00	11.0	NA	NA	NA	NA	VOCs	SO-AOC-3-1 (38-40) DPT, Soil wet at 40 ft
	GW-AOC-3-1	Groundwater	40-44	11/01/00	NA	5.26	0.130	27.3	55	VOCs	GW-AOC-3-1 (40-44) DPT
	GW-AOC-3-1	Groundwater	50-54	11/01/00	NA	5.91	0.137	28.6	243	VOCs	GW-AOC-3-1 (50-54) DPT
	GW-AOC-3-1	Groundwater	55-59	11/01/00	NA	6.19	0.156	28.4	35	VOCs	GW-AOC-3-1 (55-59) DPT, Boring terminated 59 ft

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
GW-AOC-3-2	SO-AOC-3-2	Soil	0-2	10/30/00	50	NA	NA	NA	NA	VOCs	SO-AOC-3-2 (0-2) DPT
	SO-AOC-3-2	Soil	4-6	10/30/00	40	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	8-10	10/30/00	>100	NA	NA	NA	NA	VOCs	SO-AOC-3-2 (8-10) DPT
	SO-AOC-3-2	Soil	14-16	10/30/00	54	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	18-20	10/30/00	33	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	24-26	10/30/00	25	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	29-31	10/30/00	48	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	34-36	10/30/00	45	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	38-40	10/30/00	50	NA	NA	NA	NA	VOCs	SO-AOC-3-2 (38-40) DPT
	SO-AOC-3-2	Soil	40-44	10/30/00	NM	NA	NA	NA	NA	None	Wet Soil at 42 Ft. DPT
	GW-AOC-3-2	Groundwater	40-44	10/30/00	NA	5.17	0.124	27.8	175	VOCs	GW-AOC-3-2 (40-44) DPT
	GW-AOC-3-2	Groundwater	48-52	10/30/00	NA	4.54	0.120	28.0	588	VOCs	GW-AOC-3-2 (48-52) DPT
	GW-AOC-3-2	Groundwater	60-64	10/30/00	NA	6.75	0.249	26.0	137	VOCs	GW-AOC-3-2 (60-64) DPT, Boring terminated 63.5 ft
GW-AOC-8-1	SO-AOC-8-1	Soil	0-2	10/11/00	11.0	NA	NA	NA	NA	VOCs	SO-AOC-8-1 (0-2) DPT
	SO-AOC-8-1	Soil	4-6	10/11/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	8-10	10/11/00	20.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	14-16	10/11/00	40.0	NA	NA	NA	NA	VOCs	SO-AOC-8-1 (14-16) DPT
	SO-AOC-8-1	Soil	18-20	10/11/00	29.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	24-26	10/11/00	33.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	29-31	10/11/00	13.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	34-36	10/11/00	25.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	38-40	10/11/00	47.0	NA	NA	NA	NA	VOCs	SO-AOC-8-1 (38-40) DPT, Soil wet at 41 ft
	GW-AOC-8-1	Groundwater	40-44	10/18/00	NA	5.40	0.065	29.2	10	VOCs	GW-AOC-8-1 (40-44) DPT
	GW-AOC-8-1	Groundwater	49-53	10/18/00	NA	5.48	0.135	21.9	175	VOCs	GW-AOC-8-1 (49-53) DPT
	GW-AOC-8-1	Groundwater	58-62	10/18/00	NA	NM	0.262	22.7	87	VOCs	GW-AOC-8-1 (58-62) DPT, Boring terminated 62 ft
GW-AOC-8-2	SO-AOC-8-2	Soil	0-2	10/12/00	6.0	NA	NA	NA	NA	VOCs	SO-AOC-8-2 (0-2) DPT
	SO-AOC-8-2	Soil	4-6	10/12/00	10.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	8-10	10/12/00	12.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	14-16	10/12/00	22.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	18-20	10/12/00	62.0	NA	NA	NA	NA	VOCs	SO-AOC-8-2 (18-20) DPT
	SO-AOC-8-2	Soil	24-26	10/12/00	18.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	29-31	10/12/00	5.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	34-36	10/12/00	8.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	38-40	10/12/00	14.0	NA	NA	NA	NA	VOCs	SO-AOC-8-2 (38-40) DPT, Soil wet at 42 ft
	GW-AOC-8-2	Groundwater	42-46	10/19/00	NA	6.03	0.108	27.8	86	VOCs	GW-AOC-8-2 (42-46) DPT
	GW-AOC-8-2	Groundwater	50-54	10/19/00	NA	NM	NM	NM	NM	VOCs	GW-AOC-8-2 (50-54) DPT
	GW-AOC-8-2	Groundwater	56-60	10/19/00	NA	NM	NM	NM	NM	VOCs	GW-AOC-8-2 (56-60) DPT, Boring terminated 60 ft
GW-AOC-9-1	SO-AOC-9-1	Soil	0-2	10/19/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-9-1 (0-2) DPT
	SO-AOC-9-1	Soil	4-6	10/19/00	40.0	NA	NA	NA	NA	VOCs	SO-AOC-9-2 (4-6) DPT
	SO-AOC-9-1	Soil	8-10	10/19/00	39.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	14-16	10/19/00	16.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	18-20	10/19/00	4.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	24-26	10/19/00	3.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	29-31	10/19/00	3.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	34-36	10/19/00	6.0	NA	NA	NA	NA	VOCs	SO-AOC-9-1 (34-36) DPT
	SO-AOC-9-1	Soil	38-40	10/19/00	4.0	NA	NA	NA	NA	None	Soil Wet at 40 Ft. DPT
	GW-AOC-9-1	Groundwater	40-44	10/19/00	NA	5.76	0.054	26.5	496	VOCs	GW-AOC-9-1 (40-44) DPT
	GW-AOC-9-1	Groundwater	50-54	10/20/00	NA	NM	NM	NM	NM	VOCs	GW-AOC-9-1 (50-54) DPT
	GW-AOC-9-1	Groundwater	58-62	10/20/00	NA	NM	NM	NM	NM	VOCs	GW-AOC-9-1 (58-62) DPT, Boring terminated 62 ft
GW-AOC-9-2	SO-AOC-9-2	Soil	0-4	10/20/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-9-2 (0-2) DPT
	SO-AOC-9-2	Soil	4-8	10/20/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-9-2 (4-6) DPT
	SO-AOC-9-2	Soil	8-12	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	12-16	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	17-20	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	20-24	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	24-28	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	28-32	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	32-36	10/20/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-9-2 (32-34) DPT
	SO-AOC-9-2	Soil	36-40	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	40-44	10/20/00	0.0	NA	NA	NA	NA	None	DPT, Soil wet at 44 ft
	GW-AOC-9-2	Groundwater	44-48	10/20/00	NA	4.93	0.110	25.5	209	VOCs	GW-AOC-9-2 (44-48) DPT
	GW-AOC-9-2	Groundwater	50-54	10/20/00	NA	5.92	0.077	26.0	532	VOCs	GW-AOC-9-2 (50-54) DPT
	GW-AOC-9-2	Groundwater	58-62	10/20/00	NA	6.27	0.148	26.3	389	VOCs	GW-AOC-9-2 (58-62) DPT, Boring terminated 64 ft
GW-AOC-10-1	SO-AOC-10-1	Soil	0-2	10/12/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-10-1 (0-2) DPT
	SO-AOC-10-1	Soil	4-6	10/12/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	8-10	10/12/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	14-16	10/12/00	8.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	18-20	10/12/00	12.0	NA	NA	NA	NA	VOCs	SO-AOC-10-1 (18-20) DPT
	SO-AOC-10-1	Soil	24-26	10/12/00	11.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	29-31	10/12/00	6.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	34-36	10/12/00	8.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	38-40	10/12/00	24.0	NA	NA	NA	NA	VOCs	Wet soil at 40 Ft. SO-AOC-10-1 (38-40) DPT
	GW-AOC-10-1	Groundwater	44-48	10/18/00	NA	6.26	0.194	21.7	10	VOCs	GW-AOC-10-1 (44-48) DPT
	GW-AOC-10-1	Groundwater	52-56	10/18/00	NA	4.74	0.152	29.0	103	VOCs	GW-AOC-10-1 (52-56) DPT
	GW-AOC-10-1	Groundwater	60-64	10/18/00	NA	6.59	0.194	28.8	999	VOCs	GW-AOC-10-1 (60-64) DPT, Boring terminated 64 ft
STB-1	STB-1	Soil	60-60.5	11/27/00	NM	NA	NA	NA	NA	pH, TOC	Sand, Rotosonic soil coring
	STB-1	Soil	67-69.5	11/27/00	NM	NA	NA	NA	NA	Water Retention, Permeability, Grain Size, and Specific Gravity	Rotosonic soil coring
	STB-1	Soil	72	11/27/00	NM	NA	NA	NA	NA	pH, TOC	Clay, Rotosonic soil coring
	STB-1	Soil	72-73	11/27/00	NM	NA	NA	NA	NA	Water Retention, Permeability, Grain Size, and Specific Gravity	Clay, Rotosonic soil coring
STB-2	STB-2	Soil	0-12	03/27/03	NM	NA	NA	NA	NA	None	DPT
STB-3	STB-3	Soil	0-12.5	03/14/03	NM	NA	NA	NA	NA	None	DPT

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-101/ MW-7	0-2	Soil	0-2	02/06/03	1.1	NA	NA	NA	NA	VOCs	SB-101 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	02/06/03	2.4	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	02/06/03	18.3	NA	NA	NA	NA	None	Rotosonic soil coring
	6-8	Soil	6-8	02/06/03	5.0	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	02/06/03	11.8	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	02/06/03	21.5	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	02/06/03	2617.0	NA	NA	NA	NA	VOCs	SB-101 (12-14 ft), Rotosonic soil coring
	14-16	Soil	14-16	02/06/03	41.7	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	02/06/03	68.5	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	02/06/03	828.0	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	02/06/03	77.2	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	02/06/03	24.8	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	02/06/03	21.1	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	02/06/03	17.8	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	02/06/03	10.9	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	02/06/03	9.0	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	02/06/03	18.1	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	02/06/03	17.6	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	02/06/03	16.4	NA	NA	NA	NA	VOCs	SB-101 (36-38 ft), Rotosonic soil coring
	38-40	Soil	38-40	02/06/03	NM	NA	NA	NA	NA	None	Wet Soil at 40 ft, Rotosonic soil coring
	40-42	Soil	40-42	02/06/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	42-44	Soil	42-44	02/06/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	44-46	Soil	44-46	02/06/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	46-48	Soil	46-48	02/06/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring, Boring terminated 58 ft
SB-102	1.0	Soil	1.0	1/21/2003	0.0	NA	NA	NA	NA	VOCs	SB-102 (0-2 ft), DPT
	2.0	Soil	2.0	1/21/2003	0.0	NA	NA	NA	NA		
	3.0	Soil	3.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	4.0	Soil	4.0	1/21/2003	0.1	NA	NA	NA	NA	None	DPT
	5.0	Soil	5.0	1/21/2003	80.2	NA	NA	NA	NA	VOCs	SB-102 (5-6 ft), DPT
	6..0	Soil	6.0	1/21/2003	5.0	NA	NA	NA	NA		
	7.0	Soil	7.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	9.0	Soil	9.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/21/2003	75.7	NA	NA	NA	NA	None	DPT
	12.0	Soil	12.0	1/21/2003	16.1	NA	NA	NA	NA	None	DPT
	13.0	Soil	13.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	1/21/2003	1.8	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	1/21/2003	77.6	NA	NA	NA	NA	None	DPT
	16.0	Soil	16.0	1/21/2003	15.7	NA	NA	NA	NA	None	DPT
	17.0	Soil	17.0	1/21/2003	66.3	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	1/21/2003	15.2	NA	NA	NA	NA	None	DPT
	19.0	Soil	19.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	20.0	Soil	20.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	1/21/2003	22.7	NA	NA	NA	NA	None	DPT
	22.0	Soil	22.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	23.0	Soil	23.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	24.0	Soil	24.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	25.0	Soil	25.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	27.0	Soil	27.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	28.0	Soil	28.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	30.0	Soil	30.0	1/21/2003	NM	NA	NA	NA	NA	None	DPT
	31.0	Soil	31.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	32.0	Soil	32.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	33.0	Soil	33.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	34.0	Soil	34.0	1/21/2003	NM	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	1/21/2003	0.0	NA	NA	NA	NA	VOCs	SB-102 (35-36 ft), DPT
	36.0	Soil	36.0	1/21/2003	0.0	NA	NA	NA	NA		
	37.0	Soil	37.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	38.0	Soil	38.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT, Soil wet at 38.5 ft
	39.0	Soil	39.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT, Boring terminated 41 ft
SB-103/MW-8	0-2	Soil	0-2	2/6/2003	1.8	NA	NA	NA	NA	VOCs	SB-103 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	2/6/2003	13.0	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	2/6/2003	164.0	NA	NA	NA	NA	None	Rotosonic soil coring
	6-8	Soil	6-8	2/6/2003	502.0	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	2/6/2003	32.6	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	2/6/2003	23.7	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	2/6/2003	10.3	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	2/6/2003	5.3	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	2/6/2003	9.1	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	2/6/2003	60.3	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	2/6/2003	66.2	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	2/6/2003	441.0	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	2/6/2003	45.0	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	2/6/2003	579.0	NA	NA	NA	NA	VOCs	SB-103 (26-28 ft), Rotosonic soil coring
	28-30	Soil	28-30	2/6/2003	402.0	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	2/6/2003	394.0	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	2/6/2003	379.0	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	2/6/2003	369.0	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	2/6/2003	361.0	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	2/6/2003	412.0	NA	NA	NA	NA	None	Rotosonic soil coring
	40-42	Soil	40-42	2/6/2003	362.0	NA	NA	NA	NA	None	Rotosonic soil coring
	42-44	Soil	42-44	2/6/2003	389.0	NA	NA	NA	NA	None	Rotosonic soil coring
	44-46	Soil	44-46	2/6/2003	388.0	NA	NA	NA	NA	None	Rotosonic soil coring, Soil wet at 46 ft
	46-48	Soil	46-48	2/6/2003	NM	NA	NA	NA	NA	VOCs	SB-103 (46-48 ft), Rotosonic soil coring, Boring terminated 72 ft

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-104	1.0	Soil	1.0	1/21/2003	0.0	NA	NA	NA	NA	VOCs	SB-104 (0-2 ft), Rotosonic soil coring
	3.0	Soil	3.0	1/21/2003	0.0	NA	NA	NA	NA	None	Rotosonic soil coring
	5.0	Soil	5.0	1/21/2003	2.0	NA	NA	NA	NA	None	Rotosonic soil coring
	7.0	Soil	7.0	1/21/2003	0.4	NA	NA	NA	NA	None	Rotosonic soil coring
	8.0	Soil	8.0	1/21/2003	7.1	NA	NA	NA	NA	None	Rotosonic soil coring
	10.0	Soil	10.0	1/21/2003	0.2	NA	NA	NA	NA	None	Rotosonic soil coring
	11.0	Soil	11.0	1/21/2003	12.3	NA	NA	NA	NA	None	Rotosonic soil coring
	13.0	Soil	13.0	1/21/2003	0.2	NA	NA	NA	NA	None	Rotosonic soil coring
	14.0	Soil	14.0	1/21/2003	18.6	NA	NA	NA	NA	None	Rotosonic soil coring
	16.0	Soil	16.0	1/21/2003	20.0	NA	NA	NA	NA	None	Rotosonic soil coring
	17.0	Soil	17.0	1/21/2003	31.2	NA	NA	NA	NA	None	Rotosonic soil coring
	19.0	Soil	19.0	1/21/2003	0.8	NA	NA	NA	NA	None	Rotosonic soil coring
	20.0	Soil	20.0	1/21/2003	49.0	NA	NA	NA	NA	None	Rotosonic soil coring
	22.0	Soil	22.0	1/21/2003	144.0	NA	NA	NA	NA	VOCs	SB-104 (21-22 ft), Rotosonic soil coring
	24.0	Soil	24.0	1/21/2003	23.0	NA	NA	NA	NA	None	Rotosonic soil coring
	26.0	Soil	26.0	1/21/2003	58.4	NA	NA	NA	NA	None	Rotosonic soil coring
	28.0	Soil	28.0	1/21/2003	53.0	NA	NA	NA	NA	None	Rotosonic soil coring
	30.0	Soil	30.0	1/21/2003	67.1	NA	NA	NA	NA	None	Rotosonic soil coring
	32.0	Soil	32.0	1/21/2003	19.5	NA	NA	NA	NA	None	Rotosonic soil coring
	34.0	Soil	34.0	1/21/2003	0.3	NA	NA	NA	NA	None	Rotosonic soil coring
	36.0	Soil	36.0	1/21/2003	22.5	NA	NA	NA	NA	None	Rotosonic soil coring
	38.0	Soil	38.0	1/21/2003	131.0	NA	NA	NA	NA	None	Rotosonic soil coring
	40.0	Soil	40.0	1/21/2003	2.6	NA	NA	NA	NA	VOCs	SB-104 (40-42 ft), Rotosonic soil coring
	42.0	Soil	42.0	1/21/2003	44.0	NA	NA	NA	NA		
	42-45	Soil	42-45	1/21/2003	0.0	NA	NA	NA	NA	None	Rotosonic soil coring
	45-46	Soil	45-46	1/21/2003	0.0	NA	NA	NA	NA	None	Rotosonic soil coring, Soil wet at 47 ft
	46-47	Soil	46-47	1/21/2003	0.0	NA	NA	NA	NA	None	Rotosonic soil coring, Boring terminated 48 ft
SB-105	1.0	Soil	1.0	1/22/2003	1.8	NA	NA	NA	NA	VOCs	SB-105 (0-2 ft), DPT
	3.0	Soil	3.0	1/22/2003	0.2	NA	NA	NA	NA	None	DPT
	5.0	Soil	5.0	1/22/2003	4.3	NA	NA	NA	NA	None	DPT
	7.0	Soil	7.0	1/22/2003	0.0	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/22/2003	4.6	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	1/22/2003	0.0	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/22/2003	27.1	NA	NA	NA	NA	VOCs	SB-105 (11-12 ft), DPT
	13.0	Soil	13.0	1/22/2003	23.8	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	1/22/2003	14.2	NA	NA	NA	NA	None	DPT
	16.0	Soil	16.0	1/22/2003	9.9	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	1/22/2003	7.9	NA	NA	NA	NA	None	DPT
	20.0	Soil	20.0	1/22/2003	10.3	NA	NA	NA	NA	None	DPT
	22.0	Soil	22.0	1/22/2003	7.8	NA	NA	NA	NA	None	DPT
	24.0	Soil	24.0	1/22/2003	2.3	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	1/22/2003	3.6	NA	NA	NA	NA	None	DPT
	28.0	Soil	28.0	1/22/2003	3.7	NA	NA	NA	NA	None	DPT
	30.0	Soil	30.0	1/22/2003	0.1	NA	NA	NA	NA	None	DPT
	32.0	Soil	32.0	1/22/2003	0.4	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	1/22/2003	64.8	NA	NA	NA	NA	None	DPT
	37.0	Soil	37.0	1/22/2003	82.0	NA	NA	NA	NA	VOCs	SB-105 (37-38 ft), DPT
	39.0	Soil	39.0	1/22/2003	21.2	NA	NA	NA	NA	None	DPT, Soil wet at 40.6 ft, Boring terminated 42 ft
SB-106	2.0	Soil	2.0	1/23/2003	0.8	NA	NA	NA	NA	VOCs	SB-106 (0-2 ft), DPT
	4.0	Soil	4.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	5.0	Soil	5.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	7.0	Soil	7.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/23/2003	0.4	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	13.0	Soil	13.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	1/23/2003	0.5	NA	NA	NA	NA	None	DPT
	16.0	Soil	16.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	20.0	Soil	20.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	22.0	Soil	22.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	24.0	Soil	24.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	1/23/2003	0.3	NA	NA	NA	NA	None	DPT
	28.0	Soil	28.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	1/23/2003	0.8	NA	NA	NA	NA	VOCs	SB-106 (29-30 ft), DPT
	31.0	Soil	31.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	32.0	Soil	32.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	34.0	Soil	34.0	1/23/2003	0.5	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	1/23/2003	0.4	NA	NA	NA	NA	None	DPT
	37.0	Soil	37.0	1/23/2003	0.6	NA	NA	NA	NA	None	DPT
	38.0	Soil	38.0	1/23/2003	0.3	NA	NA	NA	NA	None	DPT
	40.0	Soil	40.0	1/23/2003	0.4	NA	NA	NA	NA	None	DPT
	41.0	Soil	41.0	1/23/2003	1.0	NA	NA	NA	NA	None	DPT
	43.0	Soil	43.0	1/23/2003	1.1	NA	NA	NA	NA	VOCs	SB-106 (42-43 ft), DPT
	44-45	Soil	44-45	1/23/2003	0.2	NA	NA	NA	NA	None	DPT, Soil wet at 45.8 ft
	45-46	Soil	45-46	1/23/2003	0.2	NA	NA	NA	NA	None	DPT, Boring terminated 46 ft
SB-107/MW-9	0-2	Soil	0-2	2/7/2003	197.0	NA	NA	NA	NA	VOCs	SB-107 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	2/7/2003	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	2/7/2003	180.0	NA	NA	NA	NA	None	Rotosonic soil coring
	6-8	Soil	6-8	2/7/2003	160.0	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	2/7/2003	152.0	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	2/7/2003	285.0	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	2/7/2003	134.0	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	2/7/2003	642.0	NA	NA	NA	NA	VOCs	SB-107 (14-16 ft), Rotosonic soil coring
	16-18	Soil	16-18	2/7/2003	85.8	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	2/7/2003	96.1	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	2/7/2003	76.2	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	2/7/2003	35.4	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	2/7/2003	23.2	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	2/7/2003	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	2/7/2003	91.2	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	2/7/2003	204.0	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	2/7/2003	514.0	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	2/7/2003	258.0	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	2/7/2003	154.0	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	2/10/2003	184.0	NA	NA	NA	NA	VOCs	SB-107 (38-40 ft), Rotosonic soil coring, Soil wet at 41.5 ft, Boring terminated at 69 ft

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-108	2.0	Soil	2.0	1/24/2003	0.1	NA	NA	NA	NA	VOCs	SB-108 (0-2 ft), DPT
	4.0	Soil	4.0	1/24/2003	0.2	NA	NA	NA	NA	None	DPT
	6.0	Soil	6.0	1/24/2003	0.0	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/24/2003	0.3	NA	NA	NA	NA	None	DPT
	9.0	Soil	9.0	1/24/2003	1.1	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/24/2003	0.3	NA	NA	NA	NA	None	DPT
	12.0	Soil	12.0	1/24/2003	1.4	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	1/24/2003	0.6	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	1/24/2003	0.6	NA	NA	NA	NA	None	DPT
	17.0	Soil	17.0	1/24/2003	0.0	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	1/24/2003	1.9	NA	NA	NA	NA	None	DPT
	20.0	Soil	20.0	1/24/2003	0.2	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	1/24/2003	0.4	NA	NA	NA	NA	None	DPT
	23.0	Soil	23.0	1/24/2003	0.3	NA	NA	NA	NA	None	DPT
	24.0	Soil	24.0	1/24/2003	8.7	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	1/24/2003	0.3	NA	NA	NA	NA	None	DPT
	27.0	Soil	27.0	1/24/2003	14.5	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	1/24/2003	10.6	NA	NA	NA	NA	VOCs	SB-108 (29-30 ft), DPT
	30.0	Soil	30.0	1/24/2003	31.4	NA	NA	NA	NA		
	32.0	Soil	32.0	1/24/2003	4.8	NA	NA	NA	NA	None	DPT
	33.0	Soil	33.0	1/24/2003	7.9	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	1/24/2003	4.7	NA	NA	NA	NA	None	DPT
	36.0	Soil	36.0	1/24/2003	28.5	NA	NA	NA	NA	None	DPT
	38.0	Soil	38.0	1/24/2003	5.3	NA	NA	NA	NA	None	DPT
	39.0	Soil	39.0	1/24/2003	2.1	NA	NA	NA	NA	None	DPT
	41.0	Soil	41.0	1/24/2003	3.7	NA	NA	NA	NA	None	DPT
	42.0	Soil	42.0	1/24/2003	0.9	NA	NA	NA	NA	None	DPT
	44.0	Soil	44.0	1/24/2003	3.2	NA	NA	NA	NA	None	DPT
	45.0	Soil	45.0	1/24/2003	0.6	NA	NA	NA	NA	VOCs	SB-108 (45-46 ft), DPT
	47.0	Soil	47.0	1/24/2003	8.3	NA	NA	NA	NA	None	Wet soil 47 ft, DPT, Boring terminated 50 ft.
SB-109	2.0	Soil	2.0	1/23/2003	1.1	NA	NA	NA	NA	VOCs	SB-109 (0-2 ft), DPT
	4.0	Soil	4.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	5.0	Soil	5.0	1/23/2003	1.0	NA	NA	NA	NA	None	DPT
	7.0	Soil	7.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/23/2003	1.6	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	1/23/2003	0.3	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/23/2003	21.6	NA	NA	NA	NA	VOCs	SB-109 (11-12 ft), DPT
	13.0	Soil	13.0	1/23/2003	20.4	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	1/23/2003	6.6	NA	NA	NA	NA	None	DPT
	17.0	Soil	17.0	1/23/2003	3.5	NA	NA	NA	NA	None	DPT
	19.0	Soil	19.0	1/23/2003	4.2	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	1/23/2003	5.3	NA	NA	NA	NA	None	DPT
	23.0	Soil	23.0	1/23/2003	7.0	NA	NA	NA	NA	None	DPT
	25.0	Soil	25.0	1/23/2003	5.8	NA	NA	NA	NA	None	DPT
	27.0	Soil	27.0	1/23/2003	4.1	NA	NA	NA	NA	VOCs	SB-109 (27-28 ft), DPT
	29.0	Soil	29.0	1/23/2003	1.3	NA	NA	NA	NA	None	DPT, Soil wet at 28 ft
	31.0	Soil	31.0	1/23/2003	3.2	NA	NA	NA	NA	None	DPT, Boring terminated 33 ft
SB-110/MW-10	0-2	Soil	0-2	02/10/03	270.0	NA	NA	NA	NA	VOCs	SB-110 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	02/10/03	182.0	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	02/10/03	184.0	NA	NA	NA	NA	VOCs	SB-110 (4-6 ft), Rotosonic soil coring
	6-8	Soil	6-8	02/10/03	134.0	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	02/10/03	57.4	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	02/10/03	96.2	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	02/10/03	41.7	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	02/10/03	29.3	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	02/10/03	22.3	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	02/10/03	10.0	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	02/10/03	17.3	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	02/10/03	15.3	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	02/10/03	13.3	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	02/10/03	14.7	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	02/10/03	11.0	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	02/10/03	18.4	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	02/10/03	11.3	NA	NA	NA	NA	VOCs	SB-110 (32-34 ft), Rotosonic soil coring
	34-36	Soil	34-36	02/10/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	02/10/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	02/10/03	NM	NA	NA	NA	NA	None	Wet soil 40 ft, Rotosonic soil coring, Boring terminated 49.5 ft.
SB-111	2.0	Soil	2.0	01/22/03	0.5	NA	NA	NA	NA	VOCs	SB-111 (0-2 ft), DPT
	4.0	Soil	4.0	01/22/03	0.0	NA	NA	NA	NA	None	DPT
	6.0	Soil	6.0	01/22/03	2.2	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	01/22/03	2.4	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	01/22/03	0.0	NA	NA	NA	NA	None	DPT
	12.0	Soil	12.0	01/22/03	0.0	NA	NA	NA	NA	None	DPT
	13.0	Soil	13.0	01/22/03	5.4	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	01/22/03	3.8	NA	NA	NA	NA	None	DPT
	16.0	Soil	16.0	01/22/03	1.5	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	01/22/03	0.0	NA	NA	NA	NA	None	DPT
	19.0	Soil	19.0	01/22/03	17.1	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	01/22/03	10.6	NA	NA	NA	NA	VOCs	SB-111 (21-22 ft), DPT
	22.0	Soil	22.0	01/22/03	22.0	NA	NA	NA	NA		
	24.0	Soil	24.0	01/22/03	1.3	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	01/22/03	8.6	NA	NA	NA	NA	None	DPT
	28.0	Soil	28.0	01/22/03	4.0	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	01/22/03	7.2	NA	NA	NA	NA	None	DPT
	31.0	Soil	31.0	01/22/03	6.4	NA	NA	NA	NA	None	DPT
	33.0	Soil	33.0	01/22/03	18.8	NA	NA	NA	NA	VOCs	SB-111 (32-33 ft), DPT
	35.0	Soil	35.0	01/22/03	1.8	NA	NA	NA	NA	None	DPT, Soil wet at 34.3 ft, Boring terminated 37 ft

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-112	2.0	Soil	2.0	01/23/03	0.5	NA	NA	NA	NA	VOCs	SB-112 (0-2 ft), DPT
	4.0	Soil	4.0	01/23/03	0.1	NA	NA	NA	NA	None	DPT
	6.0	Soil	6.0	01/23/03	0.1	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	01/23/03	0.2	NA	NA	NA	NA	None	DPT
	9.0	Soil	9.0	01/23/03	0.6	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	01/23/03	0.4	NA	NA	NA	NA	None	DPT
	12.0	Soil	12.0	01/23/03	2.4	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	01/23/03	0.6	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	01/23/03	12.7	NA	NA	NA	NA	None	DPT
	17.0	Soil	17.0	01/23/03	8.6	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	01/23/03	57.9	NA	NA	NA	NA	VOCs	SB-112 (18-19 ft) / SB-200 (10-11), DPT
	20.0	Soil	20.0	01/23/03	40.3	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	01/23/03	20.4	NA	NA	NA	NA	None	DPT
	23.0	Soil	23.0	01/23/03	2.1	NA	NA	NA	NA	None	DPT
	25.0	Soil	25.0	01/23/03	45.7	NA	NA	NA	NA	None	DPT
	27.0	Soil	27.0	01/23/03	32.1	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	01/23/03	25.8	NA	NA	NA	NA	None	DPT
	31.0	Soil	31.0	01/23/03	20.6	NA	NA	NA	NA	None	DPT
	33.0	Soil	33.0	01/23/03	15.9	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	01/23/03	20.1	NA	NA	NA	NA	None	DPT
	36.0	Soil	36.0	01/23/03	1.1	NA	NA	NA	NA	None	DPT
	38.0	Soil	38.0	01/23/03	5.1	NA	NA	NA	NA	VOCs	SB-112 (38-39 ft), DPT, Soil wet at 40.2 ft
	39.0	Soil	39.0	01/23/03	7.5	NA	NA	NA	NA		
	41.0	Soil	41.0	01/23/03	31.1	NA	NA	NA	NA	None	DPT, Boring terminated 41 ft
SB-113	0.2	Soil	0-2	2/3-5/03	141.0	NA	NA	NA	NA	VOC/SPLP VOC	SB-113 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	2/3-5/03	87.2	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	2/3-5/03	57.0	NA	NA	NA	NA	VOCs	SB-113 (4-6 ft), Rotosonic soil coring
	6-8	Soil	6-8	2/3-5/03	52.2	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	2/3-5/03	7.9	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	2/3-5/03	21.1	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	2/3-5/03	41.3	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	2/3-5/03	24.8	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	2/3-5/03	27.6	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	2/3-5/03	35.4	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	2/3-5/03	39.6	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	2/3-5/03	54.1	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	2/3-5/03	52.6	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	2/3-5/03	28.2	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	2/3-5/03	31.8	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	2/3-5/03	51.8	NA	NA	NA	NA	None	Rotosonic soil coring
	40-42	Soil	40-42	2/3-5/03	36.1	NA	NA	NA	NA	VOCs	SB-113 (40-42 ft), Rotosonic soil coring,
	42-44	Soil	42-44	2/3-5/03	NM	NA	NA	NA	NA	specific gravity, grain size, falling head perm, water retentior	SB-113 (43-45 ft), Rotosonic soil coring, Soil wet at 42 ft
	44-46	Soil	44-46	2/3-5/03	NM	NA	NA	NA	NA		
	46-48	Soil	46-48	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	48-50	Soil	48-50	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	43.5-47.5	Groundwater	43.5-47.5	02/05/03	NA	NM	NM	NM	NM	VOCs	SB-113 (43.5-47.5) Uppermost, Rotosonic Isoflow system
	57-62	Groundwater	57-62	02/05/03	NA	NM	NM	NM	NM	VOCs	SB-113 (57-62) Twiggs, Rotosonic Isoflow system, Boring terminated 78.5 ft
SB-114	0-2	Soil	0-2	02/05/03	27.7	NA	NA	NA	NA	VOCs	SB-114 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	02/05/03	25.3	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	02/05/03	28.3	NA	NA	NA	NA	None	Rotosonic soil coring
	6-8	Soil	6-8	02/05/03	32.6	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	02/05/03	39.4	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	02/05/03	45.7	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	02/05/03	44.0	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	02/05/03	47.9	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	02/05/03	72.5	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	02/05/03	69.3	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	02/05/03	55.8	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	02/05/03	86.1	NA	NA	NA	NA	VOCs / SPLP VOCs	SB-114 (22-24 ft), Rotosonic soil coring
	24-26	Soil	24-26	02/05/03	41.1	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	02/05/03	43.1	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	02/05/03	17.8	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	02/05/03	40.9	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	02/05/03	39.6	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	02/05/03	28.3	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	02/05/03	34.1	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	02/05/03	24.5	NA	NA	NA	NA	None	Rotosonic soil coring
	40-42	Soil	40-42	02/05/03	45.0	NA	NA	NA	NA	None	Rotosonic soil coring
	42-44	Soil	42-44	02/05/03	39.0	NA	NA	NA	NA	VOCs	SB-114 (42-44 ft), Rotosonic soil coring
	45.0	Soil	45.0	02/05/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring, Soil wet at 45 ft
	45-48	Groundwater	45-48	02/05/03	NA	NM	NM	NM	NM	VOCs	SB-114 (45-48 ft) Uppermost, Rotosonic Isoflow system
	60-65	Groundwater	60-65	02/05/03	NA	NM	NM	NM	NM	VOCs	SB-114 (60-65 ft) Twiggs, Rotosonic Isoflow system, Boring terminated 78.5 ft
SB-115	0-2	Soil	0-2	03/13/03	29.4	NA	NA	NA	NA	VOCs	SB-115 (0 -2), DPT
	4-8	Soil	4-8	03/13/03	9.6/1.1	NA	NA	NA	NA	None	DPT
	8-11.5	Soil	8-11.5	03/13/03	9.7/3.4	NA	NA	NA	NA	None	DPT
	11.5-15	Soil	11.5-15	03/13/03	3.4/71.2	NA	NA	NA	NA	VOCs	SB-115 (11-13), DPT
	15-18.5	Soil	15-18.5	03/13/03	359/242	NA	NA	NA	NA	None	DPT
	18.5-22	Soil	18.5-22	03/13/03	1050/550	NA	NA	NA	NA	VOCs	SB-115 (18-20), DPT
	22-25.5	Soil	22-25.5	03/13/03	100	NA	NA	NA	NA	None	DPT
	25.5-27	Soil	25.5-27	03/13/03	NM	NA	NA	NA	NA	None	DPT
	27-30	Soil	27-30	03/13/03	NM	NA	NA	NA	NA	None	DPT
	30-33.5	Soil	30-33.5	03/13/03	NM	NA	NA	NA	NA	None	DPT
	33.5-37	Soil	33.5-37	03/13/03	NM	NA	NA	NA	NA	None	DPT
	24-27	Groundwater	24-27	03/13/03	NA	NM	NM	NM	NM	VOCs	SB-115 (24-27) Uppermost, DPT
	35-37	Groundwater	25-37	03/13/03	NA	NM	NM	NM	NM	VOCs	SB-115 (35-37) Twiggs, DPT, Soil wet at 33 ft, Boring terminated 37 ft
SB-116	0-4	Soil	0-4	03/12/03	2.3/0.8	NA	NA	NA	NA	VOCs	SB-116 (0-2), DPT
	4-8	Soil	4-8	03/12/03	0.9/0.8	NA	NA	NA	NA	None	DPT
	8-12	Soil	8-12	03/12/03	0.0	NA	NA	NA	NA	None	DPT
	12-15.5	Soil	12-15.5	03/12/03	1.7/0.3	NA	NA	NA	NA	None	DPT
	15.5-19	Soil	15.5-19	03/12/03	0.0	NA	NA	NA	NA	None	DPT
	19-22.5	Soil	19-22.5	03/12/03	73.5	NA	NA	NA	NA	None	DPT
	22.5-26	Soil	22.5-26	03/12/03	44.9/12.9	NA	NA	NA	NA	None	DPT
	26-29.5	Soil	26-29.5	03/12/03	0.0/92.3	NA	NA	NA	NA	None	DPT
	29.5-33	Soil	29.5-33	03/12/03	11.9	NA	NA	NA	NA	None	DPT
	33-36.5	Soil	33-36.5	03/12/03	124.0	NA	NA	NA	NA	None	DPT
	36.5-40.0	Soil	36.5-40.0	03/12/03	NM	NA	NA	NA	NA	None	DPT
	40.0-43.5	Soil	40.0-43.5	03/12/03	NM	NA	NA	NA	NA	None	DPT, Boring terminated 43.5 ft

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-117	0.0-4.0	Soil	0.0-4.0	03/12/03	0.0	NA	NA	NA	NA	VOCs	SB-117 (0-2), DPT
	4.0-8.0	Soil	4.0-8.0	03/12/03	2.4/1.3	NA	NA	NA	NA	None	DPT
	8.0-11.5	Soil	8.0-11.5	03/12/03	0.0	NA	NA	NA	NA	None	DPT
	11.5-15.0	Soil	11.5-15.0	03/12/03	17.3	NA	NA	NA	NA	VOCs	SB-117 (12-14), DPT
	15.0-18.5	Soil	15.0-18.5	03/12/03	2.1/0.0	NA	NA	NA	NA	None	DPT
	18.5-22.0	Soil	18.5-22.0	03/12/03	0.8/0.0	NA	NA	NA	NA	None	DPT
	22.0-25.5	Soil	22.0-25.5	03/12/03	2.1/1.3	NA	NA	NA	NA	None	DPT
	25.5-29.0	Soil	25.5-29.0	03/12/03	1.8	NA	NA	NA	NA	None	DPT
	29.0-32.5	Soil	29.0-32.5	03/12/03	0.0/0.8	NA	NA	NA	NA	None	DPT
	32.5-36.0	Soil	32.5-36.0	03/12/03	2.1/2.4	NA	NA	NA	NA	None	DPT
	36.0-39.5	Soil	36.0-39.5	03/12/03	2.1/5.0	NA	NA	NA	NA	None	DPT
	39.5-43.0	Soil	39.5-43.0	03/12/03	0.0	NA	NA	NA	NA	None	DPT
	43.0-46.5	Soil	43.0-46.5	03/12/03	0.0/4.9	NA	NA	NA	NA	VOCs	SB-117 (44-46), DPT
	46.5-50.0	Soil	46.5-50.0	03/12/03	NM	NA	NA	NA	NA	None	DPT, Soil wet at 48 ft, Boring terminated 50 ft
SB-118	0.0-4.0	Soil	0.0-4.0	03/26/03	0.8/3.7	NA	NA	NA	NA	VOCs	SB-118 (0-2), DPT
	4.0-8.0	Soil	4.0-8.0	03/26/03	1.5	NA	NA	NA	NA	VOCs	SB-118 (4-5), DPT, Soil wet at 6 ft
	8.0-10.0	Soil	8.0-10.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	10.0-14.0	Soil	10.0-14.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	14.0-17.0	Soil	14.0-17.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	17.0-19.0	Soil	17.0-19.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	19.0-21.0	Soil	19.0-21.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	6-10	Groundwater	6-10	03/26/03	NA	NM	NM	NM	NM	VOCs	SB-118 (6-10) Uppermost, DPT
	17-21	Groundwater	17-21	03/26/03	NA	NM	NM	NM	NM	VOCs	SB-118 (17-21) Twiggs, DPT, Boring terminated 21 ft
HA-1	0.4-2.1	Soil	0.4-2.1	03/27/03	5.8	NA	NA	NA	NA	VOCs	HA-1 0.4-2.1, Handauger
HA-2	0.35-2.1	Soil	0.35-2.1	03/27/03	80.1	NA	NA	NA	NA	VOCs	HA-2 0.35-2.1, Handauger
HA-3	0.35-2.1	Soil	0.35-2.1	03/27/03	1.4	NA	NA	NA	NA	VOCs	HA-3 0.35-2.05, Handauger
HA-4	0.42-1.9	Soil	0.42-1.9	03/27/03	4.9	NA	NA	NA	NA	VOCs	HA-4 0.42-1.95, Handauger
HA-5	0.4-2.2	Soil	0.4-2.2	03/27/03	12.7	NA	NA	NA	NA	VOCs	HA-5 0.4-2.2, Handauger
HA-6	1.2-2	Soil	1.2-2	03/27/03	NM	NA	NA	NA	NA	VOCs	HA-6 1.2-2, Handauger
HA-7	3-5	Soil	3-5	03/27/03	3.0/5.1	NA	NA	NA	NA	VOCs	HA-7 3-5, Handauger
HA-8	0-0.5	Soil	0-0.5	03/27/03	255.0	NA	NA	NA	NA	VOCs	HA-8 0-0.5, Handauger
SPLP AOC-1 HA-2	0.35-2.1	Soil	0.4-2.1	03/27/03	NM	NA	NA	NA	NA	SPLP VOCs	SPLP AOC-1 HA-2, Handauger
SPLP AOC-3 HA-6	1.2-2	Soil	1.2-2	03/27/03	NM	NA	NA	NA	NA	SPLP VOCs	SPLP AOC-3 HA-6, Handauger
Kd-1	0-1	Soil	0-1	04/12/05	134	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	385	NA	NA	NA	NA	VOCs	Kd-1 (2 ft), DPT
	3	Soil	3	04/12/05	72.5	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/12/05	147	NA	NA	NA	NA	VOCs	Kd-1 (4 ft), DPT
	5	Soil	5	04/12/05	NM	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	35.8	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	31.2	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	24.3	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/12/05	8.8	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	7.2	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	6.1	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/12/05	11	NA	NA	NA	NA	None	DPT
Kd-2	0-1	Soil	0-1	04/12/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	25.6	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/12/05	5.4	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/12/05	31.2	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/12/05	11.6	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	13.7	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	9.6	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	50.6	NA	NA	NA	NA	VOCs	Kd-2 (8 ft), DPT
	9	Soil	9	04/12/05	3.3	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	4.9	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	2.8	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/12/05	0.3	NA	NA	NA	NA	None	DPT
Kd-3	0-1	Soil	0-1	04/12/05	34.8	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	70.2	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/12/05	94.2	NA	NA	NA	NA	VOCs	Kd-3 (3 ft), DPT
	4	Soil	4	04/12/05	146	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-3 (4 ft), DPT
	5	Soil	5	04/12/05	5.7	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	22.5	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	7.9	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	3.8	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/12/05	2.5	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	6.3	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	3.5	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/12/05	0.1	NA	NA	NA	NA	None	DPT
Kd-4	0-1	Soil	0-1	04/12/05	355	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	487	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-4 (2 ft), DPT
	3	Soil	3	04/12/05	322	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/12/05	13.4	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/12/05	3.3	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	1.3	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	1.6	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	6	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/12/05	4.3	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	2	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	100	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-4 (11 ft), DPT
	12	Soil	12	04/12/05	6.1	NA	NA	NA	NA	None	DPT
Kd-5	0-1	Soil	0-1	04/12/05	8.4	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	30.6	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/12/05	60.5	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-5 (3 ft), DPT
	4	Soil	4	04/12/05	6.7	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/12/05	0.9	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	3	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	9.3	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	2.8	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/12/05	9.3	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	16	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	17.5	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/12/05	13.6	NA	NA	NA	NA	None	DPT
Kd-6	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	0	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	0.3	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	0	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	0	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	0.3	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	0	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	NR	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	NR	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/13/05	NR	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	NR	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	NR	NA	NA	NA	NA	None	DPT

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
Kd-7	0	Soil	0	04/13/05	68.1	NA	NA	NA	NA	None	DPT
	1	Soil	1	04/13/05	210	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	57	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	16.6	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-7 (3 ft), DPT
	4	Soil	4	04/13/05	9.8	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	20.9	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	3.8	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	1.7	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	1.6	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	1.9	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/13/05	6.3	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	0.7	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	3.4	NA	NA	NA	NA	None	DPT
Kd-8	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	260	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	10.1	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	0.3	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	2.6	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	2.5	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	1.9	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	1.7	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	363	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-8 (9 ft), DPT
	10	Soil	10	04/13/05	8.3	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	6.8	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	20.2	NA	NA	NA	NA	None	DPT
	13	Soil	13	04/13/05	NR	NA	NA	NA	NA	None	DPT
	14	Soil	14	04/13/05	41.9	NA	NA	NA	NA	None	DPT
	15	Soil	15	04/13/05	11.8	NA	NA	NA	NA	None	DPT
	16	Soil	16	04/13/05	17.9	NA	NA	NA	NA	None	DPT
Kd-9	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	NR	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	33.3	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	8.4	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	15.9	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	18.6	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	69.2	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-9 (7 ft), DPT
	8	Soil	8	04/13/05	27.2	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	420	NA	NA	NA	NA	VOCs	Kd-9 (9 ft), DPT
	10	Soil	10	04/13/05	46.9	NA	NA	NA	NA	VOCs	Kd-9 (10 ft), DPT
	11	Soil	11	04/13/05	39.6	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	13.8	NA	NA	NA	NA	None	DPT
Kd-10	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	NR	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	438	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-10 (3 ft), DPT
	4	Soil	4	04/13/05	245	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	193	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	96.1	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	40	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	23.7	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	711	NA	NA	NA	NA	VOCs	Kd-10 (9 ft), DPT
	10	Soil	10	04/13/05	474	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	97.6	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	16	NA	NA	NA	NA	None	DPT
	13	Soil	13	04/13/05	863	NA	NA	NA	NA	VOCs	Kd-10 (13 ft), DPT
	14	Soil	14	04/13/05	243	NA	NA	NA	NA	None	DPT
	15	Soil	15	04/13/05	3006	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-10 (15 ft), DPT
	16	Soil	16	04/13/05	119	NA	NA	NA	NA	None	DPT
	17	Soil	17	04/13/05	2012	NA	NA	NA	NA	VOCs	Kd-10 (17 ft), DPT
	18	Soil	18	04/13/05	1375	NA	NA	NA	NA	None	DPT
	19	Soil	19	04/13/05	511	NA	NA	NA	NA	None	DPT
	20	Soil	20	04/13/05	126	NA	NA	NA	NA	None	DPT
Kd-11	0-1	Soil	0-1	04/13/05	0	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	2.7	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	25.7	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	60.1	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-11 (4 ft), DPT
	5	Soil	5	04/13/05	19.3	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	54.8	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-11 (6 ft), DPT
	7	Soil	7	04/13/05	25.4	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	38.3	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	NR	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/13/05	2334	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	29.4	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	20.8	NA	NA	NA	NA	None	DPT
Kd-12	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	NR	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	17.1	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	15.9	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	6.5	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	30.9	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	9.7	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	18.5	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	667	NA	NA	NA	NA	VOCs	Kd-12 (9 ft), DPT
	10	Soil	10	04/13/05	466	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-12 (10 ft), DPT
	11	Soil	11	04/13/05	NR	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	NR	NA	NA	NA	NA	None	DPT
MW-1	MW-1	Groundwater	69.4-74.4	02/25/00	NA	6.99	0.482	15.8	10	VOCs	Purged and sampled with bailer
	MW-1	Groundwater	69.4-74.4	10/02/00	NA	6.72	0.231	18.4	10	VOCs	Purged and sampled with bailer
	MW-1	Groundwater	69.4-74.4	02/19/03	NA	6.28	0.127	20.1	NM	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-1(MW-1A)	Groundwater	72.2-73.7*	5/5/2004	NA	6.10	0.124	21.3	4.72	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-1(MW-1A)	Groundwater	72.2-73.7*	10/12-13/2004	NA	5.68	0.110	22.5	9.6	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
MW-2	MW-2	Groundwater	53-58	02/25/00	NA	NM	NM	NM	NM	VOCs	Purged and sampled with bailer
	MW-2	Groundwater	53-58	10/03/00	NA	7.12	0.219	22.3	100	VOCs	Purged and sampled with bailer
	MW-2	Groundwater	53-58	02/19/03	NA	7.20	0.210	21.1	1	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-2(MW-2A)	Groundwater	55.4-56.9*	5/5/2004	NA	NM	NM	NM	0.05	VOCs	VOCs sampled with PDB.
	MW-2(MW-2A)	Groundwater	55.4-56.9*	10/12/2004	NA	5.10	0.010	24.4	0.28	VOCs	VOCs sampled with PDB.
MW-3	MW-3	Groundwater	55-60	02/25/00	NA	NM	NM	NM	NM	VOCs	Purged and sampled with bailer
	MW-3	Groundwater	55-60	10/03/00	NA	6.15	0.155	25.9	6	VOCs	Purged and sampled with bailer
	MW-3	Groundwater	55-60	02/18/03	NA	5.42	0.103	24.6	4	VOCs	Purged with submersible pump, sampled with bailer
	MW-3(MW-3A)	Groundwater	57.5-59*	5/6/2004	NA	5.70	0.122	25.1	1.79	VOCs, Site Total and Dissolved metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-3(MW-3A)	Groundwater	57.5-59*	10/12-13/2004	NA	5.50	0.100	27.0	0.5	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
MW-4	MW-4	Groundwater	53-58	02/25/00	NA	NM	NM	NM	NM	VOCs	Purged and sampled with bailer
	MW-4	Groundwater	53-58	10/03/00	NA	7.31	0.306	25.9	102	VOCs	Purged and sampled with bailer
	MW-4	Groundwater	53-58	02/18/03	NA	7.03	0.262	25.2	3	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-4(MW-4A)	Groundwater	'55.5-57*	5/6/2004	NA	7.05	0.273	26.8	2.93	VOCs, Site Total and Dissolved metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-4(MW-4A)	Groundwater	'55.5-57*	10/12-13/2004	NA	7.15	0.260	26.1	11.1	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
MW-5	MW-5	Groundwater	49-54	02/25/00	NA	7.44	0.285	18.1	10	VOCs	Purged and sampled with bailer
	MW-5	Groundwater	49-54	10/03/00	NA	6.68	0.227	23.7	13	VOCs	Purged and sampled with bailer
	MW-5	Groundwater	49-54	02/18/03	NA	6.33	0.161	22.2	0	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-5	Groundwater	49-54	06/12/03	NA	7.10	0.161	23.1	329	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-5	Groundwater	49-54	07/08/03	NA	7.18	0.457	22.7	13	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-5(MW-5A)	Groundwater	51.4-52.9	5/7/2004	NA	6.17	0.155	22	1.9	VOCs, Site Total and Dissolved metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-5(MW-5A)	Groundwater	51.4-52.9	10/12-13/2004	NA	5.78	0.120	24.6	0	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
MW-6	MW-6	Groundwater	43-48	02/25/00	NA	NM	NM	NM	NM	VOCs	Purged and sampled with bailer
	MW-6	Groundwater	43-48	10/03/00	NA	6.70	0.214	21.4	13	VOCs	Purged and sampled with bailer
	MW-6	Groundwater	43-48	02/18/03	NA	6.79	0.253	24.9	2	VOCs	Purged with submersible pump LFLS, sampled with bailer
MW-7	MW-7	Groundwater	46-56	02/25/03	NA	6.65	0.353	23.1	2	VOCs	Purged with submersible pump LFLS, sampled with bailer
MW-8	MW-8	Groundwater	60-70	02/24/03	NA	7.25	0.249	23.4	4	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-8 (MW-8A)	Groundwater	'60.6-62.1	5/7/2004	NA	4.73	0.045	22.2	0.18	VOCs	PDBs
	MW-8 (MW-8B)	Groundwater	65.6-67.1	5/7/2004	NA	5.04	0.018	21.3	0.01	VOCs	PDBs
	MW-8 (MW-8A)	Groundwater	'60.6-62.1	10/12/2004	NA	4.86	0.000	23.9	0.29	VOCs	PDBs
MW-9	MW-9	Groundwater	55-65	02/24/03	NA	7.23	0.264	23.8	1	VOCs	Purged with submersible pump LFLS, sampled with bailer
MW-10	MW-10	Groundwater	35-45	02/25/03	NA	6.98	0.254	24.5	3	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-10 (MW-10A)	Groundwater	38.6-40.1	5/6/2004	NA	6.50	0.089	25.0	0.25	VOCs, Total and Dissolved Metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-10 (MW-10B)	Groundwater	43.6-45.1	5/6/2004	NA	5.59	0.018	23.1	0.56	VOCs	PDBs
	MW-10 (MW-10A)	Groundwater	38.6-40.1	10/12-13/04	NA	6.26	0.130	24.3	0	VOCs, Total and Dissolved Metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
MW-11	MW-11	Groundwater	66-76	02/25/03	NA	7.34	0.212	23.4	4	VOCs	Purged with submersible pump LFLS, sampled with bailer
MW-12	MW-12	Groundwater	60.5-70.5	02/25/03	NA	7.62	0.184	21.8	1	VOCs	Purged with submersible pump LFLS, sampled with bailer
MW-13	MW-13	Groundwater	12-22	02/26/03	NA	5.93	0.123	16.7	1	VOCs	Purged with submersible pump LFLS, sampled with bailer
MW-14	MW-14	Groundwater	71.2-81.2	04/03/03	NA	6.91	0.343	22.3	721	VOCs	Purged with submersible pump LFLS, sampled with bailer
	DUP-400/MW-14	Groundwater	71.2-81.2	04/03/03	NA	6.91	0.343	22.3	721	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 PRE	Groundwater	71.2-81.2	04/21/03	NA	6.29	0.334	20.4	7	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 POST	Groundwater	71.2-81.2	04/21/03	NA	7.57	0.339	22.2	156	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 LONG	Groundwater	71.2-81.2	04/21/03	NA	7.59	0.359	21.5	5	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 7:10	Groundwater	71.2-81.2	06/13/03	NA	7.42	0.298	21.3	71	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 9:30	Groundwater	71.2-81.2	06/13/03	NA	7.56	0.291	21.0	12	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 12:15	Groundwater	71.2-81.2	06/13/03	NA	7.39	0.290	21.8	17	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14	Groundwater	71.2-81.2	07/08/03	NA	7.23	0.408	20.6	168	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-14 (MW-14A)	Groundwater	74.5-76	5/5/2004	NA	NM	NM	NM	7.35	VOCs	PDBs
	MW-14 (MW-14B)	Groundwater	79.5-81	5/5/2004	NA	NM	NM	NM	0.43	VOCs	PDBs
	MW-14 (MW-14C)	Groundwater	84.5-86	5/5/2004	NA	7.40	0.034	21.1	0.54	VOCs	PDBs
	MW-14 (MW-14A)	Groundwater	74.5-76	10/12/2004	NA	4.55	0.000	26.2	0	VOCs	PDBs
MW-15	MW-15	Groundwater	6.7-11.7	04/03/03	NA	6.46	0.390	17.3	2	VOCs	Purged with submersible pump LFLS, sampled with bailer
MW-16	MW-16	Groundwater	6.7-11.7	04/04/03	NA	5.50	0.062	16.8	0	VOCs	Purged with submersible pump LFLS, sampled with bailer
MW-17	MW-17	Groundwater	33-47.5	05/14/03	NA	6.99	4.550	69.1	2.06	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-17	Groundwater	33-47.5	07/08/03	NA	7.00	0.537	18.8	36	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-17 (MW-17A)	Groundwater	36.4-37.9	5/4/2004	NA	4.67	0.046	19.7	1.1	VOCs	PDBs
	MW-17 (MW-17B)	Groundwater	41.4-42.9	5/4/2004	NA	4.66	0.250	20.3	1.4	VOCs	PDBs
	MW-17 (MW-17C)	Groundwater	46.4-47.9	05/04/04	NA	4.57	0.080	19.2	0.65	VOCs	PDBs
	MW-17 (MW-17A)	Groundwater	36.4-37.9	10/12/2004	NA	4.46	0.000	23.4	0	VOCs	PDBs
MW-18	MW-18	Groundwater	27-42	05/14/03	NA	6.99	396.0	64.3	8.83	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-18	Groundwater	27-42	07/08/03	NA	6.62	0.497	17.3	45	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-18 (MW-18A)	Groundwater	31.1-32.6	5/4/2004	NA	4.65	0.004	18.1	1.1	VOCs	PDBs
	MW-18 (MW-18B)	Groundwater	36.1-37.6	5/4/2004	NA	4.68	0.002	19.0	0.06	VOCs	PDBs
	MW-18 (MW-18C)	Groundwater	41.1-42.6	5/4/2004	NA	NM	NM	NM	0.5	VOCs	PDBs
	MW-18 (MW-18A)	Groundwater	31.1-32.6	10/12/2004	NA	4.53	0.000	24.1	0	VOCs	PDBs

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Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
MW-19	MW-19	Groundwater	36.2-46.2	05/28/03	NA	7.81	4.910	28.2	0.43	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-19	Groundwater	36.2-46.2	06/13/03	NA	8.44	0.159	20.7	999	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-19	Groundwater	36.2-46.2	07/08/03	NA	7.29	0.243	20.8	207	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-19 (MW-19A)	Groundwater	39.9-41.4	5/5/2004	NA	7.10	0.240	21.4	3.55	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer. No dissolved metals; preserved in field prior to filtering
	MW-19 (MW-19B)	Groundwater	44.9-46.4	5/5/2004	NA	7.10	0.240	21.4	3.55	VOCs	PDBs
	MW-19 (MW-19A)	Groundwater	39.9-41.4	10/13/2004	NA	6.90	0.240	26.1	1.3	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
MW-20	MW-20	Groundwater	91.7-106.7	05/28/03	NA	7.41	7.560	25.2	29.1	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-20 12:10	Groundwater	91.7-106.7	06/12/03	NA	6.77	0.331	24.3	13	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-20 15:00	Groundwater	91.7-106.7	06/12/03	NA	7.16	0.316	23.8	31	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-20 17:30	Groundwater	91.7-106.7	06/12/03	NA	7.09	0.320	23.2	14	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-20	Groundwater	91.7-106.7	07/08/03	NA	7.18	0.457	22.7	13	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-20 (MW-20A)	Groundwater	92.6-94.1	05/06/04	NA	4.74	0.063	20.5	0.04	VOCs	PDBs
	MW-20 (MW-20B)	Groundwater	97.6-99.1	05/06/04	NA	4.60	0.041	20.1	0.04	VOCs	PDBs
	MW-20 (MW-20C)	Groundwater	102.6-104.1	05/06/04	NA	4.82	0.023	20.0	0.23	VOCs	PDBs
	MW-20 (MW-20A)	Groundwater	92.6-94.1	10/28/04	NA	7.12	0.330	23.7	1.8	VOCs	Purged with submersible pump LFLS, sampled with bailer (PDB punctured on removal and could not be sampled)
MW-21	MW-21	Groundwater	89.7-104.7	09/10/03	NA	7.15	0.356	23.4	3.4	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-21 (MW-21A)	Groundwater	90.7-92.2	5/7/2004	NA	5.15	0.039	20.9	0	VOCs	PDBs
	MW-21 (MW-21B)	Groundwater	95.7-97.2	5/7/2004	NA	4.49	0.034	20.7	0	VOCs	PDBs
	MW-21 (MW-21C)	Groundwater	100.7-102.2	5/7/2004	NA	4.65	0.022	20.5	0	VOCs	PDBs
	MW-21 (MW-21A)	Groundwater	90.7-92.2	10/12/2004	NA	4.30	0.000	24.9	0.87	VOCs	PDBs
MW-22	MW-22	Groundwater	98.9-113.9	09/10/03	NA	7.23	0.346	21.2	8.5	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-22 (MW-22A)	Groundwater	100-101.5	5/5/2004	NA	NM	NM	NM	0.32	VOCs	PDBs
	MW-22 (MW-22B)	Groundwater	105-106.5	5/5/2004	NA	7.90	0.012	20.9	0.21	VOCs	PDBs
	MW-22 (MW-22C)	Groundwater	110-111.5	5/5/2004	NA	6.32	0.012	21.6	0.14	VOCs	PDBs
	MW-22 (MW-22A)	Groundwater	100-101.5	10/12/2004	NA	5.43	0.010	23.5	0.1	VOCs	PDBs
MW-23	MW-23	Groundwater	90-106	09/11/03	NA	6.95	0.379	20.8	6.8	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-23(MW-23A)	Groundwater	92.1-93.6	5/5/2004	NA	NM	NM	NM	0.36	VOCs	PDBs
	MW-23(MW-23B)	Groundwater	97.1-98.6	5/5/2004	NA	6.70	0.042	25.0	0.36	VOCs	PDBs
	MW-23(MW-23C)	Groundwater	102-103.5	5/5/2004	NA	NM	NM	NM	0	VOCs	PDBs
	MW-23(MW-23A)	Groundwater	92.1-93.6	10/12/2004	NA	6.18	0.010	23.7	0.22	VOCs	PDBs
MW-24	MW-24	Groundwater	136.9-146.7	10/12/2004	NA	NM	NM	NM	NM	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-24	Groundwater	136.9-146.7	10/28/2004	NA	7.12	0.300	22.8	0.25	VOCs	Purged with submersible pump LFLS, sampled with bailer
Manson Branch	Manson Branch #1	Surface Water	surface	05/03/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Seep	Manson Branch #2	Surface Water	surface	05/03/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	11/03/03	NA	4.36	0.089	17.4	3	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	01/15/03	NA	5.40	0.082	10.2	0	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	03/24/04	NA	5.51	0.030	15.2	4.6	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	06/23/04	NA	4.96	0.043	20.2	161	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	08/31/04	NA	3.52	0.060	21.4	12.6	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	11/17/04	NA	4.29	0.040	16.9	3.14	VOCs	Direct filling of container
Manson Branch	Manson Branch #3	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #4	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #5	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #6	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #7	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #8	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #9	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #10	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #11	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #12	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Seep	Seep West #1	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Seep	Seep #2	Surface Water	surface	06/07/00	NA	5.70	0.070	17.0	NM	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	11/03/00	NA	5.46	0.055	15.2	0	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	01/15/03	NA	3.89	0.247	7.4	720	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	03/24/04	NA	7.72	0.000	17.7	39	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	06/23/04	NA	5.76	0.061	24.0	102	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	08/30/04	NA	4.82	0.060	27.3	160	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	11/17/04	NA	5.33	0.010	7.6	199	VOCs	Direct filling of container
Seep	Seep West #3	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Seep	Seep A	Surface Water	surface	01/15/03	NA	4.71	0.076	7.9	52	VOCs	Direct filling of container
	Seep A	Surface Water	surface	03/24/04	NA	NA	NA	NA	NA	NA	Not sampled-seep was dry
	Seep A	Surface Water	surface	06/23/04	NA	6.15	0.030	24.0	170	VOCs	Direct filling of container
	Seep A	Surface Water	surface	08/31/04	NA	4.02	0.010	25.6	31.4	VOCs	Direct filling of container
	Seep A	Surface Water	surface	11/17/04	NA	NA	NA	NA	NA	NA	Not sampled-seep was dry
Seep	Seep B	Surface Water	surface	01/15/03	NA	5.43	0.083	7.1	67	VOCs	Direct filling of container
	Seep B	Surface Water	surface	03/24/04	NA	7.73	0.070	14.9	NM	VOCs	Direct filling of container
	Seep B	Surface Water	surface	06/23/04	NA	5.08	0.085	24.3	107	VOCs	Direct filling of container
	Seep B	Surface Water	surface	08/30/04	NA	4.30	0.070	26.6	12	VOCs	Direct filling of container
	Seep B	Surface Water	surface	11/17/04	NA	5.84	0.040	11.8	5.61	VOCs	Direct filling of container
Seep	Seep C	Surface Water	surface	01/15/03	NA	5.01	0.076	15.8	286	VOCs	Direct filling of container
	Seep C	Surface Water	surface	03/24/04	NA	7.74	0.020	15.6	0.87	VOCs	Direct filling of container
	Seep C	Surface Water	surface	06/23/04	NA	5.31	0.020	23.9	169	VOCs	Direct filling of container
	Seep C	Surface Water	surface	08/31/04	NA	3.35	0.050	20.9	1.13	VOCs	Direct filling of container
	Seep C	Surface Water	surface	11/17/04	NA	4.62	0.040	16.7	0	VOCs	Direct filling of container
Seep	Seep D	Surface Water	surface	01/15/03	NA	5.35	0.047	8.2	41	VOCs	Direct filling of container
	Seep D	Surface Water	surface	03/24/04	NA	6.42	0.020	15.2	66.4	VOCs	Direct filling of container
	Seep D	Surface Water	surface	06/23/04	NA	5.76	0.038	23.6	5	VOCs	Direct filling of container
	Seep D	Surface Water	surface	08/31/04	NA	4.91	0.040	25.3	21.4	VOCs	Direct filling of container
	Seep D	Surface Water	surface	11/17/04	NA	4.64	0.020	10.6	38.3	VOCs	Direct filling of container
Seep	Seep E	Surface Water	surface	01/15/03	NA	5.54	0.043	9.8	6	VOCs	Direct filling of container
Seep	Seep F	Surface Water	surface	01/15/03	NA	3.89	0.165	8.0	600	VOCs	Direct filling of container
Seep	Seep G	Surface Water	surface	01/15/03	NA	5.25	0.063	8.1	999	VOCs	Direct filling of container
	Seep G	Surface Water	surface	03/24/04	NA	7.74	0.000	11.6	63.1	VOCs	Direct filling of container
	Seep G	Surface Water	surface	06/23/04	NA	5.08	0.072	24.6	835	VOCs	Direct filling of container
	Seep G	Surface Water	surface	08/31/04	NA	4.19	0.090	25.8	>999	VOCs	Direct filling of container
	Seep G	Surface Water	surface	11/17/04	NA	3.97	0.110	10.1	>999	VOCs	Direct filling of container

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
Seep	Seep H	Surface Water	surface	01/15/03	NA	4.18	0.149	8.8	168	VOCs	Direct filling of container
	Seep H	Surface Water	surface	03/24/04	NA	7.75	0.020	11.6	>999	VOCs	Direct filling of container
	Seep H	Surface Water	surface	06/23/04	NA	5.67	0.041	25.0	15	VOCs	Direct filling of container
	Seep H	Surface Water	surface	08/31/04	NA	4.78	0.040	28.9	90.7	VOCs	Direct filling of container
	Seep H	Surface Water	surface	11/17/04	NA	4.50	0.040	10.8	0.4	VOCs	Direct filling of container
Seep	Seep I	Surface Water	surface	01/15/03	NA	4.87	0.085	7.8	26	VOCs	Direct filling of container
	Seep I	Surface Water	surface	03/24/04	NA	5.10	0.020	12.9	NM	VOCs	Direct filling of container
	Seep I	Surface Water	surface	06/23/04	NA	3.60	0.178	25.3	4	VOCs	Direct filling of container
	Seep I	Surface Water	surface	08/31/04	NA	NA	NA	NA	NA	NA	Not sampled-seep was dry
	Seep I	Surface Water	surface	11/17/04	NA	3.34	0.080	7.3	92.5	VOCs	Direct filling of container
Seep	Seep J	Surface Water	surface	05/14/03	NA	NM	NM	NM	NM	VOCs	Direct filling of container
	Seep J	Surface Water	surface	03/24/04	NA	4.83	0.110	18.1	NM	VOCs	Direct filling of container
	Seep J	Surface Water	surface	06/23/04	NA	5.85	0.048	24.6	128	VOCs	Direct filling of container
	Seep J	Surface Water	surface	08/31/04	NA	3.98	0.110	25.9	519	VOCs	Direct filling of container
	Seep J	Surface Water	surface	11/17/04	NA	5.88	0.067	13.5	0	VOCs	Direct filling of container
Seep	Seep K	Surface Water	surface	03/24/04	NA	5.90	0.040	15.9	NM	VOCs	Direct filling of container
	Seep K	Surface Water	surface	06/24/04	NA	4.66	0.080	21.6	10	VOCs	Direct filling of container
	Seep K	Surface Water	surface	08/31/04	NA	4.63	0.090	25.8	694	VOCs	Direct filling of container
	Seep K	Surface Water	surface	11/17/04	NA	3.92	0.130	11.8	179	VOCs	Direct filling of container
Seep	Seep L	Surface Water	surface	03/24/04	NA	7.73	0.050	17.9	31.5	VOCs	Direct filling of container
	Seep L	Surface Water	surface	06/24/04	NA	4.65	0.009	21.4	10	VOCs	Direct filling of container
	Seep L	Surface Water	surface	08/31/04	NA	4.52	0.110	25.5	2.44	VOCs	Direct filling of container
	Seep L	Surface Water	surface	11/17/04	NA	5.20	0.090	11.9	0	VOCs	Direct filling of container
Manson Branch	MB#14	Surface Water	surface	01/15/03	NA	5.33	0.199	6.9	111	VOCs	Direct filling of container
Manson Branch	MB#15	Surface Water	surface	01/15/03	NA	5.55	0.099	7.3	11	VOCs	Direct filling of container
Manson Branch	MB#16	Surface Water	surface	01/15/03	NA	5.44	0.116	8.9	96	VOCs	Direct filling of container
Manson Branch	Manson Br Geochem	Surface Water	surface	07/08/03	NA	6.46	0.076	26.6	26	Ca Mg Na K Chloride Sulfate and Alkalinity	Direct filling of container
QA/QC Samples											
Trip Blank		water	NA	10/17/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank		water	NA	10/09/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank		water	NA	10/11/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank		water	NA	10/12/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0I270200-004	water	NA	09/25/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J040215-007	water	NA	10/03/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0I280163-016	water	NA	09/27/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0I290294-005	water	NA	09/28/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J050260 015	water	NA	10/04/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J050260 016	water	NA	10/04/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J060184 009	water	NA	10/05/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J070191 007	water	NA	10/06/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J0110227 007	water	NA	10/09/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	AJ0130152 007	water	NA	10/11/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J140112 007	water	NA	10/12/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J250216 004	water	NA	10/24/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J270167 007	water	NA	10/26/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0K030150 003	water	NA	11/02/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J260183 005	water	NA	10/25/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0K010157	water	NA	10/31/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J180228 005	water	NA	10/17/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J200244 010	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J310185 006	water	NA	10/30/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0K020282 008	water	NA	11/01/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J210135 014	water	NA	10/20/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J210135 018	water	NA	10/20/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0K030150 003	water	NA	11/02/00	NA	NA	NA	NA	NA	VOCs	
Rinsate Blank Screen	A0I280163-007	water	NA	09/27/00	NA	NA	NA	NA	NA	VOCs	
Rinsate Blank Soil Sample	A0I280163-008	water	NA	09/27/00	NA	NA	NA	NA	NA	VOCs	
EQB		water	NA	10/18/00	NA	NA	NA	NA	NA	VOCs	
EQB	A0K020282-003	water	NA	11/01/00	NA	NA	NA	NA	NA	VOCs	
EQB	A0J050260-007	water	NA	10/03/00	NA	NA	NA	NA	NA	VOCs	
EQB	A0J260183-004	water	NA	10/25/00	NA	NA	NA	NA	NA	VOCs	
EQB	A0J200233-003	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD		water	NA	10/11/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J050260-001	water	NA	10/02/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J050260-012	water	NA	10/02/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J070191 006	water	NA	10/06/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J130152 001	water	NA	10/11/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J200233 001	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J200233 009	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0K020282 007	water	NA	11/01/00	NA	NA	NA	NA	NA	VOCs	
TB 22403	A3B260186-005	water	NA	02/25/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3A170214-016	water	NA	01/15/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3A230159-006	water	NA	01/22/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3A250143-007	water	NA	01/24/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank No. 4	A3B080116-004	water	NA	02/07/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank No. 5	A3B110124-002	water	NA	02/10/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank No. 6	A3B120151-004	water	NA	02/11/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3A240219-006	water	NA	01/23/03	NA	NA	NA	NA	NA	VOCs	
TB-21903	A3B200235-005	water	NA	02/19/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank-1	A3B200235-008	water	NA	02/18/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank-2	A3B200235-012	water	NA	02/18/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank No. 3	A3B070115-006	water	NA	02/06/03	NA	NA	NA	NA	NA	VOCs	
TB-22503	A3B270170-004	water	NA	02/25/03	NA	NA	NA	NA	NA	VOCs	
TB No. 2	A3B060250-006	water	NA	02/05/03	NA	NA	NA	NA	NA	VOCs	
TB No. 1	A3B050153-002	water	NA	02/04/03	NA	NA	NA	NA	NA	VOCs	
TB-22503	A3B270170-004	water	NA	02/25/03	NA	NA	NA	NA	NA	VOCs	
TB-21903	A3B200235-005	water	NA	02/19/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3D220129-004	water	NA	04/21/03	NA	NA	NA	NA	NA	VOCs	
TB-1	A3D050147-006	water	NA	04/03/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	174523-4	water	NA	04/21/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3C290136-011	water	NA	03/28/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3E300288-003	water	NA	05/28/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3F170168-009	water	NA	06/12/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3I110165-003	water	NA	09/10/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3I120160-002	water	NA	09/11/03	NA	NA	NA	NA	NA	VOCs	
EQB-1	A3B200235-003	water	NA	02/19/03	NA	NA	NA	NA	NA	VOCs	
EQB-2	A3B200235-004	water	NA	02/19/03	NA	NA	NA	NA	NA	VOCs	
Rinsate No. 1	A3A240219-004	water	NA	01/22/03	NA	NA	NA	NA	NA	VOCs	
Rinsate Blank	A3B050153-003	water	NA	02/04/03	NA	NA	NA	NA	NA	VOCs	
Rinsate	A3C140142-007	water	NA	03/13/03	NA	NA	NA	NA	NA	VOCs	
EQB-1	A3D050147-005	water	NA	04/04/03	NA	NA	NA	NA	NA		
EQ Blank	A3290136	water	NA	03/28/03	NA	NA	NA	NA	NA	VOCs	

Table 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
Trip Blank	A4E070331 009	water	NA	05/06/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4F250401 009	water	NA	06/23/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4I01 0168 013	water	NA	08/31/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4J130147-3	water	NA	10/12/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4J140208 016	water	NA	10/12/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4J290161 002	water	NA	10/28/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A5D140167-003	water	NA	04/12/05	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A5D150281-015	water	NA	04/13/05	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A170214-012	water	NA	01/15/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A220184-001	soil	NA	01/18/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A230159-002	soil	NA	01/21/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A250149-001	water	NA	01/24/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B080119-004	water	NA	02/07/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B100180-005	water	NA	02/08/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B110157-002	water	NA	02/10/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A24019-004	water	NA	01/23/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B200235-007	water	NA	02/18/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B070135-004	water	NA	02/06/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B250228-012	water	NA	02/24/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B060250-004	water	NA	02/05/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B050157-001	water	NA	02/04/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3C150104-005	soil	NA	03/14/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B260106-001	water	NA	02/25/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3C120208-003	water	NA	03/11/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A220106-007	water	NA	01/13/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A290102-011	soil	NA	01/27/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B070115-001	soil	NA	02/05/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A240132-004	water	NA	01/23/03	NA	NA	NA	NA	NA	VOCs	
MW-3DUP/MW-100	A0J050260-006	water	NA	10/03/00	NA	NA	NA	NA	NA	VOCs	
DUPE	A0K030150 003	water	NA	11/02/00	NA	NA	NA	NA	NA	VOCs	
DUPLICATE	A0J210135 013	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
DUPE	A0K030150 003	water	NA	11/02/00	NA	NA	NA	NA	NA	VOCs	
SO-DUPE	A0K020282-006	Soil	NA	11/01/00	NA	NA	NA	NA	NA	VOCs	
DUP		water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
Potable Water	A3A240219-005	water	NA	01/22/03	NA	NA	NA	NA	NA	VOCs	Sample of pot water used for decon
Seep ZZ	Duplicate of Seep A	water	NA	01/15/03	NA	NA	NA	NA	NA	VOCs	
Seep Z04	Duplicate of Seep C	water	NA	03/24/04	NA	NA	NA	NA	NA	VOCs	
Seep Z604	Duplicate of Seep C	water	NA	06/24/04	NA	NA	NA	NA	NA	VOCs	
Seep Z804	Duplicate of Seep C	water	NA	08/31/04	NA	NA	NA	NA	NA	VOCs	
SB-200	Duplicate of SB-112 (18-20)	soil	NA	01/23/03	NA	NA	NA	NA	NA	VOCs	SB-200 (10-11)
MW-300	Duplicate of MW-3	Groundwater	55'-60'	02/18/03	NA	NA	NA	NA	NA	VOCs	
MW-400	Duplicate of MW-14	Groundwater	71.2'-86.2'	04/03/03	NA	NA	NA	NA	NA		
DUP-300	Duplicate of MW-3	Groundwater	55-60	02/18/03	NA	5.42	0.103	24.6	4	VOCs	Purged with submersible pump LFLS, sampled with bailer
DUP-1	Duplicate of MW-22	Groundwater	98.9-113.9	09/10/03	NA	7.23	0.346	21.2	8.5	VOCs	Purged with submersible pump LFLS, sampled with bailer
MT-504	Duplicate of MW-5	Groundwater	49-54	05/07/04	NA					Site Total and Dissolved Metals	Purged with submersible pump LFLS, sampled with bailer
DUP-V504-A	Duplicate of MW-5	Groundwater	51.4-52.9	05/05/04	NA					VOCs	PDBs
DUP-V504-B	Duplicate of MW-5	Groundwater	51.4-52.9	05/05/04	NA					VOCs	PDBs
Dup 1012	Duplicate of MW-24	Groundwater	136.9-146.7	10/12/04	NA					VOCs	Purged with submersible pump LFLS, sampled with bailer
DUPGW1004	Duplicate of MW-5	Groundwater	51.4-52.9	10/13/04	NA					VOCs and Site Total Metals	Purged with submersible pump LFLW, sampled with bailer

Notes:

°C= Degrees Celcius
Ca= Calcium analyzed by USEPA Method 6010B
Chloride and Sulfate analyzed by MCAWW 300.0A
K = Potassium analyzed by USEPA Method 6010B
NA = Not Applicable
Mg = Magnesium analyzed by USEPA Method 6010B
Na = Sodium analyzed by USEPA Method 6010B
NM = Not Measured
NTU - Nephelometric Turbidity Units
SC = Specific Conductance in MilliSiemens per Centimeter
LFLS = purge method low flow/low stress
PDB = passive diffusion bag sampler
NR = No soil recovery
Site Metals = Cadmium, Chromium, Copper, Nickel, Lead, Silver, and Zinc analyzed by USEPA method 6010B
* sample interval for passive diffusion bags are given in feet below top of well casing

SU = Standard Units
OVA = Organic Vapor Analyzer
ppm = parts per million
TOC = Total Organic Carbon Analyzed by Walker-Blaken Method
Total Alkalinity Analyzed by MCAWW 310.1
VOCs = Volatile Organic Compounds Analyzed by USEPA Method 8260B
Grain Size Analysis by ASTM D422
Water Retention Analysis by ASTM D2325
Permeability Analysis by COE EM 1110-2-1906
Specific Gravity Analysis by ASTM D 854

PREPARED BY/DATE: JCB 1/16/07
CHECKED BY/DATE: RNQ 2/13/07

Table 3.1: SUMMARY OF SOIL BORING DATA

Boring Number	Date Drilled	Installed By	Drilling Method	Total Depth (ft, bgs)	Ground Surface Elevation (ft NAVD)	Bottom of Boring Elevation (ft NAVD)	Purpose	Completion
SB-1	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	322.3	311.3	soil sampling	Grouted
SB-2	2/3/2000	Alliance Drilling/ ESC	Rotosonic	10	321.8	311.8	soil sampling	Grouted
SB-3	2/3/2000	Alliance Drilling/ ESC	Rotosonic	10	322.6	312.6	soil sampling	Grouted
SB-4	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	322.9	311.9	soil sampling	Grouted
SB-5	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	325.0	314.0	soil sampling	Grouted
SB-6	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	325	314.0	soil sampling	Grouted
SB-7	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	316.4	305.4	soil sampling	Grouted
SB-8	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	315.6	304.6	soil sampling	Grouted
SB-9	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	315.6	304.6	soil sampling	Grouted
SB-10	2/3/2000	Alliance Drilling/ ESC	Rotosonic	11	313.2	302.2	soil sampling	Grouted
GW E-1	9/26/2000	ESN/LAW	Direct push	55	331.5	276.5	soil & GW sampling	Grouted
GW E-2	9/26/2000	ESN/LAW	Direct push	56	337.6	281.6	GW sampling	Grouted
GW E-3	9/28/2000	ESN/LAW	Direct push	60	341.7	281.7	GW sampling	Grouted
GW-E-4	9/27/2000	ESN/LAW	Direct push	61	340.0	279.0	soil & GW sampling	Grouted
GW E-5	9/27/2000	ESN/LAW	Direct push	58	338.9	280.9	GW sampling	Grouted
GW E-6	10/3/2000	ESN/LAW	Direct push	64	338.7	274.7	GW sampling	Grouted
GW E-7	10/3/2000	ESN/LAW	Direct push	56	330.6	274.6	GW sampling	Grouted
GW E-8	10/4/2000	ESN/LAW	Direct push	54	331.6	277.6	GW sampling	Grouted
GW E-9	10/4/2000	ESN/LAW	Direct push	54	333.4	279.4	GW sampling	Grouted
GW E-10	10/5/2000	ESN/LAW	Direct push	53	332.8	279.8	GW sampling	Grouted
GW E-11	10/5/2000	ESN/LAW	Direct push	59	335.0	276.0	GW sampling	Grouted
GW E-12	10/5/2000	ESN/LAW	Direct push	54	336.4	282.4	GW sampling	Grouted
GW E-13	10/9/2000	ESN/LAW	Direct push	64	336.8	272.8	soil & GW sampling	Grouted
GW E-14	10/6/2000	ESN/LAW	Direct push	60	342.0	282.0	GW sampling	Grouted
GW E-15	10/11/2000	ESN/LAW	Direct push	65	344.3	279.3	GW sampling	Grouted
GW E-16	10/23/2000	ESN/LAW	Direct push	61	331.1	270.1	GW sampling	Grouted
GW E-17	10/26/2000	ESN/LAW	Direct push	79	343.2	264.2	GW sampling	Grouted
GW E-18	10/25/2000	ESN/LAW	Direct push	74	345.5	271.5	GW sampling	Grouted
GW E-19	10/25/2000	ESN/LAW	Direct push	78.5	346.4	267.9	GW sampling	Grouted
GW AOC1-1	10/31/2000	ESN/LAW	Direct push	62.5	341.1	278.6	soil & GW sampling	Grouted
GW AOC2-1	10/17/2000	ESN/LAW	Direct push	67	348.8	281.8	soil & GW sampling	Grouted
GW AOC3-1	10/30/2000	ESN/LAW	Direct push	59	341.2	282.2	soil & GW sampling	Grouted
GW AOC3-2	10/30/2000	ESN/LAW	Direct push	63.5	341.2	277.7	soil & GW sampling	Grouted
GW AOC8-1	10/10/2000	ESN/LAW	Direct push	62	340.5	278.5	soil & GW sampling	Grouted
GW AOC8-2	10/12/2000	ESN/LAW	Direct push	60	340.9	280.9	soil & GW sampling	Grouted
GW AOC9-1	10/19/2000	ESN/LAW	Direct push	62	340.0	278.0	soil & GW sampling	Grouted
GW AOC9-2	10/20/2000	ESN/LAW	Direct push	64	339.7	275.7	soil & GW sampling	Grouted
GW AOC10-1	10/12/2000	ESN/LAW	Direct push	64	332.8	268.8	soil & GW sampling	Grouted
STB-1	11/28/2000	Prosonic/LAW	Rotosonic	177	330.5	153.5	stratigraphy	Grouted
STB-2	3/14/2003	Prosonic/MACTEC	Direct push	12	257.2	245.2	stratigraphy	Grouted
STB-3	3/14/2003	Prosonic/MACTEC	Direct push	12.5	251.5	239.0	stratigraphy	Grouted
SB-101/MW-7	2/6/2003	Prosonic/MACTEC	Rotosonic	58	320.6	262.6	soil sampling and monitoring well	Completed as Monitoring Well MW-7
SB-102	1/21/2003	MACTEC	Direct push	41	323.2	282.2	soil sampling	Grouted
SB-103/MW-8	2/6/2003	Prosonic/MACTEC	Rotosonic	72	330.1	258.1	soil sampling and monitoring well	Completed as Monitoring Well MW-8
SB-104	1/21/2003	MACTEC	Direct push	48	331.1	283.1	soil sampling	Grouted
SB-105	1/22/2003	MACTEC	Direct push	42	324.3	282.3	soil sampling	Grouted
SB-106	1/23/2003	MACTEC	Direct push	46	331.5	285.5	soil sampling	Grouted
SB-107/MW-9	2/10/2003	Prosonic/MACTEC	Rotosonic	69	323.5	254.5	soil sampling and monitoring well	Completed as Monitoring Well MW-9
SB-108	1/24/2003	MACTEC	Direct push	50	328.5	278.5	soil sampling	Grouted
SB-109	1/23/2003	MACTEC	Direct push	33	307.0	274.0	soil sampling	Grouted
SB-110/MW-10	2/10/2003	Prosonic/MACTEC	Rotosonic	49.5	307.7	258.2	soil sampling and monitoring well	Completed as Monitoring Well MW-10
SB-111	1/22/2003	MACTEC	Direct push	37	315.4	278.4	soil sampling	Grouted
SB-112	1/23/2003	MACTEC	Direct push	41	322.8	281.8	soil sampling	Grouted
SB-113	2/3/2003	Prosonic/MACTEC	Rotosonic	78.5	321.6	243.1	soil & GW sampling	Grouted
SB-114	2/5/2003	Prosonic/MACTEC	Rotosonic	78.5	324.7	246.2	soil & GW sampling	Grouted
SB-115	3/13/2003	Prosonic/MACTEC	Direct push	37	300.5	263.5	soil & GW sampling	Grouted
SB-116	3/12/2003	Prosonic/MACTEC	Direct push	43.5	325.7	282.2	soil sampling	Grouted
SB-117	3/12/2003	Prosonic/MACTEC	Direct push	50	326.6	276.6	soil sampling	Grouted
SB-118	3/26/2003	Prosonic/MACTEC	Direct push	21	284.1	263.1	soil & GW sampling	Grouted

Table 3.1: SUMMARY OF SOIL BORING DATA

Boring Number	Date Drilled	Installed By	Drilling Method	Total Depth (ft, bgs)	Ground Surface Elevation (ft NAVD)	Bottom of Boring Elevation (ft NAVD)	Purpose	Completion
HA-1	3/27/2003	MACTEC	Hand auger	2.1	325.0	322.9	soil sampling	Grouted
HA-2	3/27/2003	MACTEC	Hand auger	2.1	325.0	322.9	soil sampling	Grouted
HA-3	3/27/2003	MACTEC	Hand auger	2.1	325.0	322.9	soil sampling	Grouted
HA-4	3/27/2003	MACTEC	Hand auger	1.9	325.0	323.1	soil sampling	Grouted
HA-5	3/27/2003	MACTEC	Hand auger	2.2	325.0	322.8	soil sampling	Grouted
HA-6	3/27/2003	MACTEC	Hand auger	2	325.0	323.0	soil sampling	Grouted
HA-7	3/27/2003	MACTEC	Hand auger	5	325.0	320.0	soil sampling	Grouted
HA-8	3/27/2003	MACTEC	Hand auger	0.5	325.0	324.5	soil sampling	Grouted
Kd-1	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-2	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-3	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-4	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-5	4/12/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-6	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	322	310	soil sampling	Grouted
Kd-7	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-8	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	16.0	325	309	soil sampling	Grouted
Kd-9	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-10	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	20.0	325	305	soil sampling	Grouted
Kd-11	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted
Kd-12	4/13/2005	Atlas GeoSampling/MACTEC	Direct push	12.0	325	313	soil sampling	Grouted

Notes:

NAVD North American Vertical Datum 1988
bgs below ground surface
ft feet
ESC Environmental Strategies Corporation
ESN Environmental Systems Network
LAW Law Engineering and Environmental Services
GW Ground water
Borings GW E-1 through GW AOC10-1 were surveyed using 1983 Georgia DOT datum
Borings Kd-1 through Kd-12 were not surveyed and their elevations are estimated from site topographic map.

PREPARED BY/DATE: JCB 1/18/07
CHECKED BY/DATE: RNO 2/13/07

Table 3.3: SUMMARY OF SOIL PHYSICAL TESTING DATA

Parameter	Sample Location, Depth of Sample		
	STB-1 67-69.5 ft, bgs (263-260.5 ft, NAVD)	**STB-1 72-73 ft, bgs (263-260.5 ft, NAVD)**	**SB-113 43-45 ft, bgs (279-277 ft, NAVD)**
Grain Size (ASTM D422) Percent (grain size in mm)			
Coarse Sand (>2.00 - 4.75 mm)	0	2.1	0
Medium Sand (>0.425-2.00 mm)	31.8	1.1	16.1
Fine Sand (>0.074-0.425 mm)	62.7	3.6	48.3
Silt (>0.005-0.074 mm)	0.5	29.0	6.8
Clay (<0.005 mm)	5.0	64.2	28.8
Unified Soil (ASTM D422) Classification System	Light Gray Silty Sand	Light Gray Sandy Silty Clay	Light Gray to Light Tan Silty Fine to Medium Sand
Falling Head Permeability (cm/sec @ 20° C) (ASTM D5084/D2434)	9.4×10^{-5}	2.1×10^{-7}	8.5×10^{-4}
Specific Gravity (ASTM D854-92)	2.66	2.68	2.70
Initial Moisture % by Volume (ASTM D2325/D2216)	36.8	63.1	26.6
Retained Water (percent by volume) (ASTM 2325) Applied Pressure (bars)			
0 bars	42.0	71.0	Not Tested
0.03 bars	39.7	70.0	Not Tested
0.1 bars	34.6	69.0	Not Tested
0.3 bars	27.7	65.7	Not Tested
1 bars	22.6	63.8	Not Tested
3.1 bars	22.2	62.6	Not Tested
10 bars	13.93	56.32	Not Tested
Estimated Effective Drainage Porosity (%)			
0.03 bars	2.3	1.0	Not Tested
0.1 bars	7.4	2.0	Not Tested
0.3 bars	14.3	5.3	Not Tested
1 bars	19.4	7.2	Not Tested
3.1 bars	19.8	8.4	Not Tested
10 bars	28.1	14.7	Not Tested
Porosity % (ASTM 2937+D854)	Not Tested	Not Tested	49.69
pH (Standard Units)	7.6	8.8	Not Tested
TOC (mg/kg)	Not detected above detection limit	250	Not Tested

Notes:

NAVD	North American Vertical Datum 1988
mm	Millimeter
cm/sec	Centimeters per second
°C	degrees Celsius
ASTM	American Society of Testing Materials
TOC	Total organic carbon
mg/kg	milligrams per kilograms

All samples were collected with a Shelby Tube (undisturbed samples)
Effective drainage porosity is calculated for an applied pressure by subtracting the retained percent by volume from the saturation percent water.

PREPARED BY/DATE: JCB 1/18/07
CHECKED BY/DATE: RNQ 2/22/07

Table 4.0: SUMMARY OF GROUND-WATER ELEVATIONS

Monitoring Well	Water-Bearing Zone Screened	Top of Casing Elevation (ft, NAVD)	Depth to Water from Top of Casing (ft) April 4, 2003	Ground-Water Elevation (ft, NAVD) April 4, 2003	Depth to Water from Top of Casing (ft) September 11, 2003	Ground-Water Elevation (ft, NAVD) September 11, 2003	Depth to Water from Top of Casing (ft) June 24, 2004	Ground-Water Elevation (ft, NAVD) June 24, 2004	Depth to Water from Top of Casing (ft) October 12, 2004	Ground-Water Elevation (ft, NAVD) October 12, 2004
MW-1	Uppermost	333.69	50.33	283.36	46.79	286.90	47.33	286.36	47.88	285.81
MW-2	Uppermost	322.38	40.73	281.65	37.80	284.58	38.41	283.97	38.77	283.61
MW-3	Uppermost	325.45	43.31	282.14	40.86	284.59	41.42	284.03	41.82	283.63
MW-4	Uppermost	323.78	41.52	282.26	39.52	284.26	40.12	283.66	40.17	283.61
MW-5	Uppermost	321.10	40.50	280.60	39.45	281.65	39.96	281.14	40.06	281.04
MW-6	Uppermost	314.37	32.15	282.22	31.36	283.01	31.02	283.35	31.53	282.84
MW-7	Uppermost	320.23	36.15	284.08	34.33	285.90	35.04	285.19	35.32	284.91
MW-8	Uppermost	329.70	44.45	285.25	42.00	287.70	42.60	287.10	42.97	286.73
MW-9	Uppermost	323.09	40.59	282.50	36.71	286.38	37.78	285.31	38.47	284.62
MW-10	Uppermost	310.05	29.26	280.79	28.30	281.75	27.99	282.06	29.04	281.01
MW-11	Uppermost	333.77	53.26	280.51	51.08	282.69	50.55	283.22	50.98	282.79
MW-12	Uppermost	328.34	50.21	278.13	47.31	281.03	48.18	280.16	48.67	279.67
MW-13	Uppermost	283.71	8.32	275.39	5.40	278.31	5.66	278.05	9.42	274.29
MW-14	Intermediate	311.62	63.98	247.64	64.64	246.98	64.42	247.20	64.17	247.45
MW-15	Alluvium	260.18	4.13	256.05	5.36	254.82	4.69	255.49	5.05	255.13
MW-16	Alluvium	253.81	3.68	250.13	4.55	249.26	3.99	249.82	4.40	249.41
MW-17	Intermediate	260.48	not installed		11.70	248.78	11.51	248.97	11.81	248.67
MW-18	Intermediate	254.18	not installed		5.61	248.57	5.45	248.73	5.70	248.48
MW-19	Uppermost	311.89	not installed		31.90	279.99	32.11	279.78	32.34	279.55
MW-20	Intermediate	325.75	not installed		79.79	245.96	79.89	245.86	79.67	246.08
MW-21	Intermediate	320.49	not installed		75.05	245.44	75.12	245.37	75.19	245.30
MW-22	Intermediate	334.05	not installed		89.16	244.89	89.23	244.82	89.33	244.72
MW-23	Intermediate	323.77	not installed		78.69	245.08	78.77	245.00	78.80	244.97
MW-24	Lower	321.23	not installed		not installed		not installed		86.67	234.56
Staff Gauge near MW-16	Surface Water	249.80	0.92	248.88	0.60	249.20	0.88	248.92	0.60	249.20
Hwy 24 Bridge over Manson Branch	Surface Water	257.08	5.70	251.38	8.80	248.28	5.79	251.29	5.80	251.28

Notes:

ft, NAVD Feet above North American Vertical Datum of 1988

* Water level re-measured on October 28, 2004.

Monitoring wells MW-1 to MW-13, MW-15, MW-16 and MW-19 screened above the uppermost tan and blue-gray clays of the Twiggs Clay (Uppermost Water-bearing Zone)

Monitoring wells MW-14, MW-17, MW-18, and MW-20 to MW-23 screened below the uppermost tan and blue-gray clays of the Twiggs Clay (Intermediate Water-bearing Zone)

PREPARED BY/DATE: JCB 1/12/07
CHECKED BY/DATE: RNQ 2/9/07

Table 4.1: SUMMARY OF HYDRAULIC CONDUCTIVITY TESTING

Well Number	Date of Test	Screened Interval (ft, NAVD)	Lithology Screened	Hydraulic Conductivity		Average Hydraulic Conductivity	
				Slug In (ft/min)	Slug Out (ft/min)	(ft/min)	(cm/sec)
MW-1	10/4/2000	264.5 - 259.5	Brown coarse grained Sand, some clay [Uppermost zone]	0.0011	0.0012	0.0012	0.0006
MW-4	10/4/2000	270.9 - 265.9	Brown medium to coarse grained Sand, some clay [Uppermost zone]	0.00067	0.00073	0.0007	0.0004
MW-10	4/3/2003	272.7 - 262.7	Orange and gray slightly clayey silty fine to medium Sand [Uppermost zone]	0.00057	0.00046	0.0005	0.0003
MW-14	4/3/2003	238.2 - 223.2	Blue-gray clayey silty fine to medium Sand [Intermediate zone]	0.021	0.021	0.021	0.011
MW-15	4/3/2003	250.9 - 245.9	Blue-gray sandy, silty Clay [Alluvium Deposits]	0.0066	0.0071	0.0069	0.003

Notes:

NAVD North American Vertical Datum 1988
cm/sec centimeters per second
ft/day feet per day

PREPARED BY/DATE: JCB 1/17/07
CHECKED BY/DATE: RNQ 2/13/07

Table 4.2: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SURFACE SOIL

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	GW-E-1 SO-E-1 0'-2' 9/25/2000	GW-E-4 SO-E-4 0'-2' 9/27/2000	GW-E-13 SO-E-13 0'-4' 10/9/2000	GW-AOC 1-1 SO-AOC 1-1 0'-2' 10/31/2000	GW-AOC 2-1 SO-AOC 2-1 0'-2' 10/17/2000	GW-AOC 3-1 SO-AOC 3-1 0'-2' 10/30/2000	GW-AOC 3-2 SO-AOC 3-2 0'-2' 10/30/2000	GW-AOC 8-1 SO-AOC-8-1 0'-2' 10/11/2000	GW-AOC 8-2 SO-AOC 8-2 0'-2' 10/12/2000	GW-AOC 9-1 SO-AOC 9-1 0'-2' 10/19/2000
Volatile Organic Compounds SW8260B - (µg/kg)															
1,1,2-Trichloroethane		*500*	*120*	*500*	*200*	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8
1,1,1-Trichloroethane		*20,000*	*49,000*	*20,000*	*440,000*	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8
1,4-Dioxane		*25,000*	*2700*	*25,000*	*2,800*	<240	<210	<340	250,000	<230	12,000	<11000	<230	<200	<290
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<2.4	<2.1	<3.4	<100	<2.3	<120	600	<2.3	<2.0	<2.9
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8
Isopropylbenzene		*22,000*	*1,500,000*	*22,000*	*8,600,000*	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8
Tetrachloroethene		*500*	*340*	*500*	*340*	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8
Trichloroethene		*500*	*790*	*500*	*1800*	<4.9	<4.2	<6.8	<210	<4.6	<230	4100	49	12	<5.8
Total Xylenes		*1,000,000*	*210,000*	*1,000,000*	*1,050,000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds SW8260B - (µg/L)															
1,4-Dioxane - SPLP						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene - SPLP						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4.2: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SURFACE SOIL

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	GW-AOC 9-2 SO-AOC 9-2 0'-2' 10/20/2000	GW-AOC 10-1 SO-AOC 10-1 0'-2' 10/12/2000	HA-1 HA-1 0.4'-2.1' 3/27/2003	HA-2 HA-2 0.35'-2.1' 3/27/2003	HA-3 HA-3 0.35'-2.05' 3/27/2003	HA-4 HA-4 0.42'-1.95' 3/27/2003	HA-5 HA-5 0.4'-2.2' 3/27/2003	HA-6 HA-6 1.2'-2.0' 3/27/2003	HA-7 HA-7 3.0'-5.0' 3/27/2003	HA-8 HA-8 0.0'-0.5' 3/27/2003
Volatile Organic Compounds SW8260B - (µg/kg)															
1,1,2-Trichloroethane		*500*	*120*	*500*	*200*	<4.6	<4.6	<5.9	<1800	26	<5.2	<4.0	<230	<290	<5.9
1,1,1-Trichloroethane		*20,000*	*49,000*	*20,000*	*440,000*	<4.6	<4.6	24	<1800	180	46	<4.0	<230	<290	<5.9
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<4.6	<4.6	<5.9	<1800	23	<5.2	<4.0	<230	<290	<5.9
1,4-Dioxane		*25,000*	*2700*	*25,000*	*2,800*	<230	<230	<290	1,500,000	14,000 E	1900	<200	<11000	<14000	<290
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<2.3	<2.3	<5.9	<1800	<6.8	<5.2	6	<230	<290	<5.9
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<4.6	<4.6	<5.9	<1800	<6.8	<5.2	<4.0	<230	<290	<5.9
Isopropylbenzene		*22,000*	*1,500,000*	*22,000*	*8,600,000*	<4.6	<4.6	<5.9	<1800	<6.8	<5.2	<4.0	<230	<290	<5.9
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<4.6	<4.6	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene		*500*	*340*	*500*	*340*	<4.6	<4.6	<5.9	<1800	<6.8	<5.2	<4.0	<230	<290	<5.9
Trichloroethene		*500*	*790*	*500*	*1800*	<4.6	<4.6	22	<1800	120	47	110	660	800	<5.9
Total Xylenes		*1,000,000*	*210,000*	*1,000,000*	*1,050,000*	NA	NA	<5.9	<1800	<6.8	<5.2	<4.0	<230	<290	<5.9
Volatile Organic Compounds SW8260B - (µg/L)															
1,4-Dioxane - SPLP						NA	NA	NA	120000	NA	NA	NA	<200	NA	NA
Methylene Chloride - SPLP						NA	NA	NA	<1.0	NA	NA	NA	7.1 B	NA	NA
Tetrachloroethene - SPLP						NA	NA	NA	<1.0	NA	NA	NA	1.5	NA	NA

Table 4.2: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SURFACE SOIL

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	SB-2 SB-2 1.5'-3.5' 2/3/2000	SB-101 SB-101 0'-2' 2/6/2003	SB-102 SB-102 0'-2' 1/21/2003	SB-103 SB-103 0'-2' 2/6/2003	SB-104 SB-104 0'-2' 1/21/2003	SB-105 SB-105 0'-2' 1/22/2003	SB-106 SB-106 0'-2' 1/23/2003	SB-107 SB-107 0'-2' 2/7/2003	SB-108 SB-108 0'-2' 1/24/2003
Volatile Organic Compounds SW8260B - (µg/kg)														
1,1,2-Trichloroethane		*500*	*120*	*500*	*200*	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8	<4.3	<4.8
1,1,1-Trichloroethane		*20,000*	*49,000*	*20,000*	*440,000*	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8	<4.3	<4.8
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<5.7	<4.8	<4.7	<4.8	<4.5	9.4	<4.8	<4.3	<4.8
1,4-Dioxane		*25,000*	*2700*	*25,000*	*2,800*	NA	<240	<240	<240	<220	<260	<240	<220	<240
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8	<4.3	<4.8
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8	<4.3	<4.8
Isopropylbenzene		*22,000*	*1,500,000*	*22,000*	*8,600,000*	<5.7	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8	<4.3	<4.8
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<5.7	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene		*500*	*340*	*500*	*340*	13	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8	<4.3	<4.8
Trichloroethene		*500*	*790*	*500*	*1800*	15	<4.8	<4.7	<4.8	<4.5	10	<4.8	<4.3	<4.8
Total Xylenes		*1,000,000*	*210,000*	*1,000,000*	*1,050,000*	NA	<4.8	<4.7	<4.8	<4.5	<5.2	<4.8	<4.3	<4.8
Volatile Organic Compounds SW8260B - (µg/L)														
1,4-Dioxane - SPLP						NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene - SPLP						NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4.2: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SURFACE SOIL

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	SB-109 SB-109 0'-2' 1/23/2003	SB-110 SB-110 0'-2' 2/10/2003	SB-111 SB-111 0'-2' 1/22/2003	SB-112 SB-112 0'-2' 1/23/2003	SB-113 SB-113 0'-2' 2/3/2003	SB-113 SPLP SB-11 0'-2' 2/5/2003 µg/L	SB-114 SB-114 0'-2' 2/5/2003	SB-115 SB-115 0'-2' 3/13/2003	SB-116 SB-116 0'-2' 3/12/2003	SB-117 SB-117 0'-2' 3/12/2003	SB-118 SB-118 0'-2' 3/26/2003
Volatile Organic Compounds SW8260B - (µg/kg)																
1,1,2-Trichloroethane		*500*	*120*	*500*	*200*	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
1,1,1-Trichloroethane		*20,000*	*49,000*	*20,000*	*440,000*	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
1,4-Dioxane		*25,000*	*2700*	*25,000*	*2,800*	<260	<230	<450	<260	<240	NA	<240	<260	<220	<220	<260
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
Isopropylbenzene		*22,000*	*1,500,000*	*22,000*	*8,600,000*	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	16	<4.4	<4.4	<5.1
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene		*500*	*340*	*500*	*340*	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
Trichloroethene		*500*	*790*	*500*	*1800*	<5.1	<4.6	<4.5	23	<4.8	NA	130	<5.2	<4.4	<4.4	<5.1
Total Xylenes		*1,000,000*	*210,000*	*1,000,000*	*1,050,000*	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
Volatile Organic Compounds SW8260B - (µg/L)																
1,4-Dioxane - SPLP						NA	NA	NA	NA	NA	<400	NA	NA	NA	NA	NA
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	6.6 B	NA	NA	NA	NA	NA
Tetrachloroethene - SPLP						NA	NA	NA	NA	NA	<2.0	NA	NA	NA	NA	NA

Notes:

AOC	Area of Concern
B	Constituent was detected in QA/QC blank
E	Estimated Concentration; result exceeds the calibration range
GW	Ground Water
NA	Not analyzed for this constituent.
µg/kg	micrograms per kilogram
µg/L	microgram per liter
ft. bgs	feet below ground surface
SPLP	Synthetic Precipitation Leaching Procedure US EPA Method 1312
a)	Borings GW-E-1 to GW-AOC 10-1 (9/25/00 to 11/01/00) sampled by LAW and analyzed by STL North Canton using USEPA method 5035/8260B
b)	Borings SB-1 to SB-10 (02/03/00) sampled by ESC
c)	Borings SB-101 to SB-118, HA-1 to HA-8 sampled by MACTEC and analyzed by STL North Canton using USEPA method 5035/8260B
RRS	Risk Reduction Standards
	Concentration exceeds Types 1-4 RRSs

PREPARED BY/DATE: RNQ 2/22/07
CHECKED BY/DATE: JAH 2/23/07

Table 4.3: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	SB-1 SB-1 10'-11' 2/3/2000	SB-3 SB-3 5'-6' 2/3/2000	SB-4 SB-4 8'-9' 2/3/2000	SB-5 SB-5 8'-9' 2/3/2000	SB-6 SB-6 0'-10' 2/3/2000	SB-7 SB-7 7'-8' 2/3/2000	SB-8 SB-8 7'-8' 2/3/2000	SB-9 SB-9 8'-9' 2/3/2000	SB-10 SB-10 5'-6' 2/3/2000	GW-E-1 SO-E-1 32'-34' 9/25/2000	GW-E-4 SO-E-4 40'-42' 9/27/2000
Volatile Organic Compounds - SW8260B (µg/kg)																
1,1,1-Trichloroethane		*20,000*	*49,000*	*500*	*440,000*	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<2.0	<4.8
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<5.9	360	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<5.9	1400	9.6	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6
Tetrachloroethene		*500*	*340*	*500*	*340*	11	<300	<6.2	10	8.4	10	8.2	9.3	9.4	<4.0	<9.6
Trichloroethene		*500*	*790*	*500*	*1,800*	160 E	<300	<6.2	12	9.7	14	9.3	11	11	<4.0	<9.6
Volatile Organic Compounds - SW8260B (µg/L)																
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4.3: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	GW-E-13		GW-AOC 1-1		GW-AOC 2-1		GW-AOC 3-1	
						SO-E-13 14'-16' 10/9/2000	SO-E-13 38'-40' 10/9/2000	SO-AOC 1-1 29'-31' 10/31/2000	SO-AOC 1-1 38'-40' 10/31/2000	SO-AOC 2-1 18'-20' 10/17/2000	SO-AOC 2-1 38'-40' 10/17/2000	SO-AOC 3-1 29'-31' 11/1/2000	SO-AOC 3-1 38'-40' 11/1/2000
Volatile Organic Compounds - SW8260B (µg/kg)													
1,1,1-Trichloroethane		*20,000*	*49,000*	*500*	*440,000*	<5.1	<9.2	86	85	<4.4	<5.5	<5.3	<5.2
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<2.6	<4.6	<3.6	<2.6	<2.2	<2.8	<2.6	<2.6
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2
Tetrachloroethene		*500*	*340*	*500*	*340*	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2
Trichloroethene		*500*	*790*	*500*	*1,800*	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2
Volatile Organic Compounds - SW8260B (µg/L)													
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	NA	NA	NA

Table 4.3: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	GW-AOC 3-2		GW-AOC 8-1		GW-AOC 8-2	
						SO-AOC 3-2 8'-10' 10/30/2000	SO-AOC 3-2 38'-40' 10/30/2000	SO-AOC-8-1 14'-16' 10/11/2000	SO-AOC-8-1 38'-40' 10/11/2000	SO-AOC 8-2 18'-20' 10/12/2000	SO-AOC 8-2 38'-40' 10/12/2000
Volatile Organic Compounds - SW8260B - (µg/kg)											
1,1,1-Trichloroethane		*20,000*	*49,000*	*500*	*440,000*	<200	<5.2	5.4	<6.6	<4.4	<5.7
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<200	<5.2	<4.8	<6.6	<4.4	<5.7
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	190	<2.6	5.6	<3.3	4	<2.8
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<200	<5.2	<4.8	<6.6	<4.4	<5.7
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<200	<5.2	<4.8	<6.6	<4.4	<5.7
Tetrachloroethene		*500*	*340*	*500*	*340*	<200	<5.2	<4.8	<6.6	<4.4	<5.7
Trichloroethene		*500*	*790*	*500*	*1,800*	980	<5.2	78	<6.6	31	<5.7
Volatile Organic Compounds - SW8260B - (µg/L)											
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	NA

Table 4.3: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	GW-AOC 9-1		GW-AOC 9-2		GW-AOC 10-1	
						SO-AOC 9-1 4'-6' 10/19/2000	SO-AOC 9-1 34'-36' 10/19/2000	SO-AOC 9-2 4'-6' 10/20/2000	SO-AOC 9-2 32'-34' 10/20/2000	SO-AOC 10-1 18'-20' 10/12/2000	SO-AOC 10-1 38'-40' 10/12/2000
Volatile Organic Compounds - SW8260B (µg/kg)											
1,1,1-Trichloroethane		*20,000*	*49,000*	*500*	*440,000*	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<3.3	<2.4	<3.4	<2.6	<2.2	<3.9
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8
Tetrachloroethene		*500*	*340*	*500*	*340*	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8
Trichloroethene		*500*	*790*	*500*	*1,800*	<6.6	<4.8	<6.7	<5.1	<4.4	<7.8
Volatile Organic Compounds - SW8260B (µg/L)											
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	NA

Table 4.3: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	SB-101		SB-102		SB-103		SB-104	
						SB-101 12'-14' 2/6/2003	SB-101 36'-38' 2/6/2003	SB-102 5'-6' 1/21/2003	SB-102 35'-36 1/21/2003	SB-103 26'-28' 2/6/2003	SB-103 46'-48' 2/6/2003	SB-104 21'-22' 1/21/2003	SB-104 40'-42' 1/21/2003
Volatile Organic Compounds - SW8260B - (µg/kg)													
1,1,1-Trichloroethane		*20,000*	*49,000*	*500*	*440,000*	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene		*500*	*340*	*500*	*340*	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
Trichloroethene		*500*	*790*	*500*	*1,800*	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
Volatile Organic Compounds - SW8260B - (µg/L)													
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	NA	NA	NA

Table 4.3: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	SB-105		SB-106		SB-107		SB-108	
						SB-105 11'-12' 1/22/2003	SB-105 37'-38' 1/22/2003	SB-106 29'-30' 1/23/2003	SB-106 42'-43' 1/23/2003	SB-107 14'-16' 2/7/2003	SB-107 38'-40' 2/10/2003	SB-108 29'-30' 1/24/2003	SB-108 45'-46' 1/24/2003
Volatile Organic Compounds - SW8260B (µg/kg)													
1,1,1-Trichloroethane		*20,000*	*49,000*	*500*	*440,000*	43	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	31	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene		*500*	*340*	*500*	*340*	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
Trichloroethene		*500*	*790*	*500*	*1,800*	53	<5.8	<4.6	<5.4	<4.7	<4.7	9.0	7.0
Volatile Organic Compounds - SW8260B (µg/L)													
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	NA	NA	NA

Table 4.3: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	SB-109		SB-110		SB-111		SB-112	
						SB-109 11'-12' 1/23/2003	SB-109 27'-28' 1/23/2003	SB-110 4'-6' 2/10/2003	SB-110 32'-34' 2/10/2003	SB-111 21'-22' 1/22/2003	SB-111 32'-33' 1/22/2003	SB-112 18'-19' 1/23/2003	SB-112 38'-39' 1/23/2003
Volatile Organic Compounds - SW8260B (µg/kg)													
1,1,1-Trichloroethane		*20,000*	*49,000*	*500*	*440,000*	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene		*500*	*340*	*500*	*340*	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
Trichloroethene		*500*	*790*	*500*	*1,800*	19	<4.8	<4.8	<5.2	<5.0	<5.3	560	17
Volatile Organic Compounds - SW8260B (µg/L)													
Methylene Chloride - SPLP						NA	NA	NA	NA	NA	NA	NA	NA

Table 4.3: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	SB-113		SB-114		SB-115	
						SB-113 4'-6' 2/5/2003	SB-113 40'-42' 2/5/2003	SB-114 22'-24' 2/5/2003	SB-114 42'-44' 2/5/2003	SB-115 11'-13' 3/13/2003	SB-115 18'-20' 3/13/2003
Volatile Organic Compounds - SW8260B - (µg/kg)											
1,1,1-Trichloroethane		*20,000*	*49,000*	*500*	*440,000*	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	NA	NA	NA	NA	NA	NA
Tetrachloroethene		*500*	*340*	*500*	*340*	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
Trichloroethene		*500*	*790*	*500*	*1,800*	9.4	<5.7	<4.9	<5.2	<4.9	<5.5
Volatile Organic Compounds - SW8260B - (µg/L)											
Methylene Chloride - SPLP						NA	NA	3.4 B	NA	NA	NA

Table 4.3: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	SB-117		SB-118
						SB-117 12'-14' 3/12/2003	SB-117 44'-46' 3/12/2003	SB-118 4'-5' 3/26/2003
Volatile Organic Compounds - SW8260B - (µg/kg)								
1,1,1-Trichloroethane		*20,000*	*49,000*	*500*	*440,000*	<4.7	<5.9	<5.1
1,1-Dichloroethene		*700*	*2900*	*700*	*28,000*	<4.7	<5.9	<5.1
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<4.7	<5.9	<5.1
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<4.7	<5.9	<5.1
m+p-Xylene		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	NA	NA	NA
Tetrachloroethene		*500*	*340*	*500*	*340*	<4.7	<5.9	<5.1
Trichloroethene		*500*	*790*	*500*	*1,800*	<4.7	<5.9	<5.1
Volatile Organic Compounds - SW8260B - (µg/L)								
Methylene Chloride - SPLP						NA	NA	NA

Notes:

AOC	Area of Concern
B	Constituent was detected in QA/QC blank
E	Estimated concentration; result exceeds the calibration range
GW	Ground Water
NA	Not analyzed for this constituent
µg/kg	micrograms per kilogram
ft. bgs	feet below ground surface
SPLP	Synthetic Precipitation Leaching Procedure USEPA Method 1312
RRS	Risk Reduction Standard (2003 CSR values)
a)	Borings SO-E-1 to GW-AOC 10-1 (9/25/00 to 11/01/00) sampled by LAW and analyzed by STL North Canton using USEPA method 5035/8360B
b)	Borings SB-1 to SB-10 (02/03/00) sampled by ESC
c)	Boring SB-101 to SB-118 sampled by MACTEC (1/2/03 to 3/26/03) and analyzed by STL North Canton using USEPA method 5035/8260B
	Concentration exceeds Types 1-4 RRSs

PREPARED BY/DATE: RNQ 2/22/07
CHECKED BY/DATE: JAH 2/23/07

Table 4.4: SUMMARY OF ANALYTICAL RESULTS FROM THE SOIL-WATER PARTITION (Kd) STUDY

Constituent	Boring Number					Kd-1	Kd-1	Kd-2	Kd-3	Kd-3	Kd-4	Kd-4
	Sample Depth (ft, bgs)	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	2 ft	4 ft	8 ft	3 ft	4 ft	2 ft	11 ft
	Date Sampled					4/12/2005	4/12/2005	4/12/2005	4/12/2005	4/12/2005	4/12/2005	4/12/2005
	PID Reading (ppm)					385	147	50.6	94.2	146	487	100
Volatile Organic Compounds SW8260B - (µg/kg)												
1,4-Dioxane		*25,000*	*2,700*	*25,000*	*2,800*	3,600,000	2,800,000	270,000	290,000	220,000	650	<240
Trichloroethene		*500*	*790*	*500*	*1800*	<2600	<2600	2600	280	890	140	240 E
1,1,1-Trichloroethane		*20,000*	*49,000*	*20,000*	*440,000*	<2600	<2600	2300	320	1100	130	410 E
1,1,2-Trichloroethane		*500*	*120*	*500*	*200*	<2600	<2600	<250	<280	<260	6.0	15
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<2600	<2600	<250	<280	<260	<5.5	8.1
1,1-Dichloroethene		*700*	*2,900*	*700*	*28,000*	<2600	<2600	<250	<280	<260	19	50
Napthalene		*100,000*	*16,000*	*100,000*	*16,000*	<2600	<2600	310	<280	<260	<5.5	<4.8
Chloroform		*10,000*	*2,000*	*10,000*	*2,000*	<2600	<2600	<250	<280	<260	<5.5	<4.8
Toluene		*100,000*	*77,000*	*100,000*	*490,000*	<2600	<2600	<250	<280	<260	<5.5	<4.8
Methylene Chloride		*500*	*480*	*500*	*1100*	<2600	<2600	<250	<280	<260	<5.5	<4.8
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<2600	<2600	<250	<280	<260	<5.5	<4.8
Xylenes, Total		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<2600	<2600	<250	<280	<260	<5.5	<4.8
SPLP Volatile Organic Compounds SW8260B - (µg/L)												
1,4-Dioxane										13000	<200	<200
Trichloroethene										3.2	<1	2.5
1,1,1-Trichloroethane										3.6	<1	1.3
1,1,2-Trichloroethane						NA	NA	NA	NA	<1	<1	<1
cis-1,2-Dichloroethene										<1	<1	<1
1,1-Dichloroethene										<1	<1	<1
Napthalene										1.5 B	1.1 B	<1
Chloroform										2.2 B	2.4 B	2.5 B
Toluene										<1	4.8	<1
Methylene Chloride										1.6 B	1.7 B	1.2 B
Ethylbenzene										<1	<1	<1
Xylenes, Total										<2	<2	<2

Table 4.4: SUMMARY OF ANALYTICAL RESULTS FROM THE SOIL-WATER PARTITION (Kd) STUDY

Constituent	Boring Number					Kd-5	Kd-7	Kd-8	Kd-9	Kd-9	Kd-9
	Sample Depth (ft, bgs)	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	3 ft	3 ft	9 ft	7 ft	9 ft	10 ft
	Date Sampled					4/12/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005
	PID Reading (ppm)					60.5	16.6	363	69.2	420	46.9
Volatile Organic Compounds SW8260B - (µg/kg)											
1,4-Dioxane		*25,000*	*2,700*	*25,000*	*2,800*	8,600	<260	<13000	<13000	<13000	<15000
Trichloroethene		*500*	*790*	*500*	*1800*	200	56	460	780	1000	650
1,1,1-Trichloroethane		*20,000*	*49,000*	*20,000*	*440,000*	250 E	<5.3	<260	<260	<260	<300
1,1,2-Trichloroethane		*500*	*120*	*500*	*200*	6.4	<5.3	<260	<260	<260	<300
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	<6.1	8.3	<260	<260	<260	<300
1,1-Dichloroethene		*700*	*2,900*	*700*	*28,000*	51	<5.3	<260	<260	<260	<300
Napthalene		*100,000*	*16,000*	*100,000*	*16,000*	<6.1	<5.3	<260	<260	<260	<300
Chloroform		*10,000*	*2,000*	*10,000*	*2,000*	<6.1	<5.3	<260	<260	<260	<300
Toluene		*100,000*	*77,000*	*100,000*	*490,000*	<6.1	<5.3	<260	<260	<260	<300
Methylene Chloride		*500*	*480*	*500*	*1100*	<6.1	<5.3	<260	<260	<260	<300
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<6.1	<5.3	<260	<260	<260	<300
Xylenes, Total		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<6.1	<5.3	<260	<260	<260	<300
SPLP Volatile Organic Compounds SW8260B - (µg/L)											
1,4-Dioxane						520	<200	<200	<200		
Trichloroethene						1.1	<1	<1	3.6		
1,1,1-Trichloroethane						<1	<1	<1	<1		
1,1,2-Trichloroethane						<1	<1	<1	<1	NA	NA
cis-1,2-Dichloroethene						<1	<1	<1	<1		
1,1-Dichloroethene						<1	<1	<1	<1		
Napthalene						1.4 B	1.8 B	52 B	4.7 B		
Chloroform						2.2 B	2.3 B	2.3 B	2.4 B		
Toluene						<1	<1	<1	<1		
Methylene Chloride						1.5 B	1.5 B	1.4 B	<1		
Ethylbenzene						<1	<1	<1	<1		
Xylenes, Total						<2	<2	<2	<2		

Table 4.4: SUMMARY OF ANALYTICAL RESULTS FROM THE SOIL-WATER PARTITION (Kd) STUDY

Constituent	Boring Number					Kd-10	Kd-10	Kd-10	Kd-10	Kd-10	Kd-11	Kd-11	Kd-12	Kd-12
	Sample Depth (ft, bgs)	*Type 1 RRSs (µg/kg)*	*Type 2 RRSs (µg/kg)*	*Type 3 RRSs (µg/kg)*	*Type 4 RRSs (µg/kg)*	3 ft	9 ft	13 ft	15 ft	17 ft	4 ft	6 ft	9 ft	10 ft
	Date Sampled					4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005
	PID Reading (ppm)					438	711	863	3006	2012	60.1	54.8	667	466
Volatile Organic Compounds SW8260B - (µg/kg)														
1,4-Dioxane		*25,000*	*2,700*	*25,000*	*2,800*	<14000	<15000	<300	<13000	<270	<14000	<18000	<250	<290
Trichloroethene		*500*	*790*	*500*	*1800*	1800	1800	810 E	830	340 E	1700	730	380 E	170
1,1,1-Trichloroethane		*20,000*	*49,000*	*20,000*	*440,000*	<290	<290	14	<260	13	<280	<360	6.1	<5.9
1,1,2-Trichloroethane		*500*	*120*	*500*	*200*	<290	<290	<5.9	<260	<5.3	<280	<360	<5	<5.9
cis-1,2-Dichloroethene		*7000*	*13,000*	*7000*	*18,000*	380	300	150	<260	41	<280	<360	18	7.7
1,1-Dichloroethene		*700*	*2,900*	*700*	*28,000*	<290	<290	11	<260	6.1	<280	<360	<5	<5.9
Napthalene		*100,000*	*16,000*	*100,000*	*16,000*	<290	<290	<5.9	<260	<5.3	<280	<360	<5	<5.9
Chloroform		*10,000*	*2,000*	*10,000*	*2,000*	<290	<290	11	<260	<5.3	<280	<360	<5	<5.9
Toluene		*100,000*	*77,000*	*100,000*	*490,000*	<290	<290	<5.9	<260	<5.3	<280	<360	<5	<5.9
Methylene Chloride		*500*	*480*	*500*	*1100*	<290	<290	<5.9	<260	<5.3	<280	<360	<5	<5.9
Ethylbenzene		*70,000*	*100,000*	*70,000*	*550,000*	<290	<290	<5.9	<260	<5.3	<280	<360	<5	<5.9
Xylenes, Total		*1,000,000*	*210,000*	*1,000,000*	*1,100,000*	<290	<290	<5.9	<260	<5.3	<280	<360	<5	<5.9
SPLP Volatile Organic Compounds SW8260B - (µg/L)														
1,4-Dioxane						<200			<200		<200	<200		<200
Trichloroethene						7.2			28		6.6	3.3		6.2
1,1,1-Trichloroethane						<1			<1		<1	<1		<1
1,1,2-Trichloroethane						<1	NA	NA	<1	NA	<1	<1	NA	<1
cis-1,2-Dichloroethene						<1			2.6		<1	<1		<1
1,1-Dichloroethene						<1			<1		<1	<1		<1
Napthalene						81 B			3.5 B		8.7 B	1.9 B		1.9 B
Chloroform						2.8 B			3.2 B		2.8 B	3.2 B		2.9 B
Toluene						<1			<1		1.2	430		<1
Methylene Chloride						4.3 B			5.3 B		3.8 B	3.4 B		2.7 B
Ethylbenzene						<1			<1		<1	1.9		<1
Xylenes, Total						<2			<2		<2	8.7		<2

Notes:

ppm	parts per million
PID	Photoionization detector
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
VOCs	Analyzed using USEPA Method 5035/8260B
SPLP	Synthetic Precipitate Leaching Procedure USEPA Method 1312
NA	Constituent not analyzed
B	Blank contamination.Constituents detected in laboratory method blank.
E	Result concentration exceeds the calibration range.
	Concentration exceeds Types 1through 4 RRSs

PREPARED BY/DATE: RNO 2/8/07
CHECKED BY/DATE: JAH 2/26/07

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				MW-1					MW-2				
Sample ID				MW-1	MW-1	MW-1	MW-1	MW-1	MW-2	MW-2	MW-2	MW-2	MW-2
Sample Depth (well screen interval) (ft. bgs)				69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'
Sample Depth (well screen interval) (ft. btoc)	*Types 1*						69.2-74.2	69.2-74.2				52.8-57.8	52.8-57.8
Passive Diffusion Bag Sample Depth (ft. btoc)	*and 3*	*Type 2*	*Type 4*				72.2-73.7	72.2-73.7				55.4-56.9	55.4-56.9
Date Sampled	*RRS*	*RRS*	*RRS*	2/25/2000	10/2/2000	2/19/2003	5/5/2004	10/12-13/2004	2/25/2000	10/3/2000	2/19/2003	5/5/2004	10/12/2004
Laboratory	*(µg/L)*	*(µg/L)*	*(µg/L)*	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge/Sample Method				Bailer/Bailer	Bailer/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer/ PDB	PumpLFLS/Bailer/ PDB	Bailer/Bailer	Bailer/Bailer	PumpLFLS/ Bailer	na/PDB	na/PDB
Constituent													
Volatile Organic Compounds - SW8260B - (µg/L)													
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	1.7	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<1.0	<2.5	<2.5	<5.0	<5.0	<1.0	<2.5	<2.5	<5.0	<5.0
Methylene chloride	*5*	*54*	*180*	<2.0	<5.0	<5.0	<5.0	<5.0	<2.0	<5.0	<5.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	1.3	<5.0	<5.0	<5.0	<5.0	5	<5.0	<5.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	<1.0	<5.0	<5.0	<5.0	<5.0	240	<5.0	<5.0	<5.0	<5.0
Site-Specific Metals - SW6010B - (mg/L)													
Total Silver							<0.1	<0.1					
Dissolved Silver							na	na					
Total Cadmium							<0.005	<0.005					
Dissolved Cadmium							na	na					
Total Chromium							<0.1	<0.1					
Dissolved Chromium							na	na					
Total Lead				Metals were not sampled and analyzed			<0.015	<0.015	Metals were not sampled and analyzed				
Dissolved Lead							na	na					
Total Copper							<1.0	<1.0					
Dissolved Copper							na	na					
Total Nickel							<0.1	<0.1					
Dissolved Nickel							na	na					
Total Zinc							<2.0	<2.0					
Dissolved Zinc							na	na					

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				MW-3					MW-4				
Sample ID				MW-3	MW-3	MW-3	MW-3	MW-3	MW-4	MW-4	MW-4	MW-4	MW-4
Sample Depth (well screen interval) (ft. bgs)				55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'
Sample Depth (well screen interval) (ft. btoc)							54.8-59.8	54.8-59.8				52.9-57.9	52.9-57.9
Passive Diffusion Bag Sample Depth (ft. btoc)							57.5-59	57.5-59				'55.5-57	'55.5-57
Date Sampled	*Types 1 and 3 RRS (µg/L)*	*Type 2 RRS (µg/L)*	*Type 4 RRS (µg/L)*	2/25/2000	10/3/2000	2/18/2003	5/6/2004	10/12-13/2004	2/25/2000	10/3/2000	2/18/2003	5/6/2004	10/12-13/2004
Laboratory				STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge/Sample Method				Bailer/Bailer	Bailer/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer/ PDB	PumpLFLS/Bailer/ PDB	Bailer/Bailer	Bailer/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer/ PDB	PumpLFLS/Bailer/ PDB
Constituent													
Volatile Organic Compounds - SW8260B - (µg/L)													
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<150	<5.0	57	6.7	13	<1.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<150	<5.0	13	5.1	12	<1.0	<5.0	<5.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<150	<5.0	<10	7.3	7.7	<1.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<150	<2.5	<5.0	<5.0	<5.0	<1.0	<2.5	<2.5	<5.0	<5.0
Methylene chloride	*5*	*54*	*180*	<300	<5.0	<10	<5.0	<5.0	<2.0	<5.0	<5.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<150	<5.0	<10	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	2900	<5.0	69	8.1	15	16	<5.0	<5.0	<5.0	<5.0
Site-Specific Metals - SW6010B - (mg/L)													
Total Silver							<0.1	<0.1				<0.1	<0.1
Dissolved Silver							<0.1	na				<0.1	na
Total Cadmium							<0.005	<0.005				<0.005	<0.005
Dissolved Cadmium							<0.005	na				<0.005	na
Total Chromium							<0.1	<0.1				<0.1	<0.1
Dissolved Chromium							<0.1	na				<0.1	na
Total Lead				Metals were not sampled and analyzed			<0.015	<0.015	Metals were not sampled and analyzed			<0.015	<0.015
Dissolved Lead							<0.015	na				<0.015	na
Total Copper							<1.0	<1.0				<1.0	<1.0
Dissolved Copper							<1.0	na				<1.0	na
Total Nickel							<0.1	<0.1				<0.1	<0.1
Dissolved Nickel							<0.1	na				<0.1	na
Total Zinc							<2.0	<2.0				<2.0	<2.0
Dissolved Zinc							<2.0	na				<2.0	na

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				MW-5				MW-5		MW-6		
Sample ID				MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-6	MW-6	MW-6
Sample Depth (well screen interval) (ft. bgs)				49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	43'-48'	43'-48'	43'-48'
Sample Depth (well screen interval) (ft. btoc)	*Types 1*							48.8-53.8	48.8-53.8			
Passive Diffusion Bag Sample Depth (ft. btoc)	*and 3*	*Type 2*	*Type 4*					51.4-52.9	51.4-52.9			
Date Sampled	*RRS*	*RRS*	*RRS*	2/25/2000	10/3/2000	2/18/2003	6/12/2003	5/7/2004	10/12-13/2004	2/25/2000	10/3/2000	2/18/2003
Laboratory	*(µg/L)*	*(µg/L)*	*(µg/L)*	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL Tampa	STL North Canton	STL North Canton
Purge/Sample Method				Bailer/Bailer	Bailer/Bailer	PumpLFLS/ Bailer	PumpLFLS/Bailer	PumpLFSL/Bailer/ PDB	PumpLFSL/Bailer/ PDB	Bailer/Bailer	Bailer/Bailer	PumpLFLS/Bailer
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<400	<500	45	53	<45	<42	<1.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<400	<500	44	65	<45	<42	<1.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<400	<500	<25	<33	<45	<42	<1.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<400	<250	15	19	<45	<42	<1.0	<2.5	<2.5
Methylene chloride	*5*	*54*	*180*	<800	<500	<25	<33	<45	<42	<2.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<400	<500	<25	<33	<45	<42	<1.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	7400	15000	730	1200	310	320	9.6	<5.0	<5.0
Site-Specific Metals - SW6010B - (mg/L)												
Total Silver								<0.1	<0.1			
Dissolved Silver								<0.1	na			
Total Cadmium								<0.005	<0.005			
Dissolved Cadmium								<0.005	na			
Total Chromium								<0.1	<0.1			
Dissolved Chromium								<0.1	na			
Total Lead								<0.015	<0.015			
Dissolved Lead				Metals were not sampled and analyzed				<0.015	na	Metals were not sampled and analyzed		
Total Copper								<1.0	<1.0			
Dissolved Copper								<1.0	na			
Total Nickel								<0.1	<0.1			
Dissolved Nickel								<0.1	na			
Total Zinc								<2.0	<2.0			
Dissolved Zinc								<2.0	na			

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				MW-7	MW-8				MW-9	MW-10			
Sample ID				MW-7	MW-8	MW-8A	MW-8B	MW-8A	MW-9	MW-10	MW-10A	MW-10B	MW-10A
Sample Depth (well screen interval) (ft. bgs)				46'-56'	60'-70'	60'-70'	60'-70'	60'-70'	55'-65'	35'-45'	35'-45'	35'-45'	35'-45'
Sample Depth (well screen interval) (ft. btoc)	*Types 1*					59.6-69.6	59.6-69.6	59.6-69.6			37.4-47.4	37.4-47.4	37.4-47.4
Passive Diffusion Bag Sample Depth (ft. btoc)	*and 3*	*Type 2*	*Type 4*			'60.6-62.1	65.6-67.1	'60.6-62.1			38.6-40.1	43.6-45.1	38.6-40.1
Date Sampled	*RRS*	*RRS*	*RRS*	2/25/2003	2/24/2003	5/7/2004	5/7/2004	10/12/2004	2/24/2003	2/25/2003	5/6/2004	5/6/2004	10/12-13/04
Laboratory	*(µg/L)*	*(µg/L)*	*(µg/L)*	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge/Sample Method				PumpLFLS/Bailer	PumpLFLS/Bailer	na/PDB	na/PDB	na/PDB	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFSL/Bailer/ PDB	PumpLFSL/Bailer/ PDB	PumpLFSL/Bailer/ PDB
Constituent													
Volatile Organic Compounds - SW8260B - (µg/L)													
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<2.5	<2.5	<5.0	<5.0	<5.0	<2.5	<2.5	<5.0	<5.0	<5.0
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	8.5	5.8	6.1
Site-Specific Metals - SW6010B - (mg/L)													
Total Silver											<0.1		<0.1
Dissolved Silver											<0.1		na
Total Cadmium											<0.005		<0.005
Dissolved Cadmium											<0.005		na
Total Chromium											<0.1		<0.1
Dissolved Chromium											<0.1		na
Total Lead				Metals were not sampled and analyzed	Metals were not sampled and analyzed				Metals were not sampled and analyzed	Metals were not sampled and analyzed	<0.015		<0.015
Dissolved Lead											<0.015		na
Total Copper											<1.0		<1.0
Dissolved Copper											<1.0		na
Total Nickel											<0.1		<0.1
Dissolved Nickel											<0.1		na
Total Zinc											<2.0		<2.0
Dissolved Zinc											<2.0		na

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				MW-11	MW-12	MW-13			MW-14					
Sample ID				MW-11	MW-12	MW-13	MW-14	MW-14 PRE	MW-14 POST	MW-14 LONG	MW-14 PRE	MW-14 POST	MW-14 LONG	MW-14 (7:10)
Sample Depth (well screen interval) (ft. bgs)				66'-76'	60.5'-70.5'	12'-22'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'
Sample Depth (well screen interval) (ft. btoc)	*Types 1 and 3*	*Type 2*	*Type 4*											
Passive Diffusion Bag Sample Depth (ft. btoc)	*RRS*	*RRS*	*RRS*											
Date Sampled	*(µg/L)*	*(µg/L)*	*(µg/L)*	2/25/2003	2/25/2003	2/26/2003	4/3/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	6/13/2003
Laboratory				STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	ASI	ASI	ASI	STL North Canton
Purge/Sample Method				PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer
Constituent														
Volatile Organic Compounds - SW8260B - (µg/L)														
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<100	<6.2	<25	<25	<25	<100	<100	<250
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<100	<6.2	<25	<25	<25	<100	<100	<250
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<100	<6.2	<25	<25	<25	<100	<100	<250
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<2.5	<2.5	<2.5	230	180	350	440	190	410	510	470
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	<5.0	<100	<6.2	<25	<25	<25	<100	<100	<250
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	<5.0	<100	<6.2	<25	<25	29	<100	<100	<250
Trichloroethene	*5*	*0.35*	*1.2*	<5.0	<5.0	<5.0	3000	2200	6300	8200	2400	8200	8800	7000
Site-Specific Metals - SW6010B - (mg/L)														
Total Silver														
Dissolved Silver														
Total Cadmium														
Dissolved Cadmium														
Total Chromium														
Dissolved Chromium														
Total Lead				Metals were not sampled and analyzed	Metals were not sampled and analyzed	Metals were not sampled and analyzed	Metals were not sampled and analyzed		Metals were not sampled and analyzed					
Dissolved Lead														
Total Copper														
Dissolved Copper														
Total Nickel														
Dissolved Nickel														
Total Zinc														
Dissolved Zinc														

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number					MW-14					MW-15	MW-16	MW-17		
Sample ID				MW-14 (9:30)	MW-14 (12:15)	MW-14A	MW-14B	MW-14C	MW-14A	MW-15	MW-16	MW-17	MW-17A	MW-17B
Sample Depth (well screen interval) (ft. bgs)				71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	6.7'-11.7'	6.7'-11.7'	33'-47.5'	33'-47.5'	33'-47.5'
Sample Depth (well screen interval) (ft. btoc)	*Types 1*					73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4				35.5-50	35.5-50
Passive Diffusion Bag Sample Depth (ft. btoc)	*and 3*	*Type 2*	*Type 4*			74.5-76	79.5-81	84.5-86	74.5-76				36.4-37.9	41.4-42.9
Date Sampled	*RRS*	*RRS*	*RRS*	6/13/2003	6/13/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004	4/3/2003	4/4/2003	5/14/2003	5/4/2004	5/4/2004
Laboratory	*(µg/L)*	*(µg/L)*	*(µg/L)*	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge/Sample Method				PumpLFLS/Bailer	PumpLFLS/Bailer	na/PDB	na/PDB	na/PDB	na/PDB	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	na/PDB	na/PDB
Constituent														
Volatile Organic Compounds - SW8260B - (µg/L)														
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<250	<250	<200	<250	<200	<310	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<250	<250	<200	<250	<200	<310	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<250	<250	<200	<250	<200	<310	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	530	520	500	450	450	<310	<2.5	<2.5	<2.5	<5.0	<5.0
Methylene chloride	*5*	*54*	*180*	<250	<250	<200	<250	<200	<310	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<250	<250	<200	<250	<200	<310	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	7700	7300	6800	6600	6100	1900	<5.0	<5.0	<5.0	<5.0	<5.0
Site-Specific Metals - SW6010B - (mg/L)														
Total Silver														
Dissolved Silver										Metals were not sampled and analyzed	Metals were not sampled and analyzed			
Total Cadmium														
Dissolved Cadmium														
Total Chromium														
Dissolved Chromium					Metals were not sampled and analyzed.							Metals were not sampled and analyzed		
Total Lead														
Dissolved Lead														
Total Copper														
Dissolved Copper														
Total Nickel														
Dissolved Nickel														
Total Zinc														
Dissolved Zinc														

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				MW-17		MW-18					MW-19				MW-19
Sample ID				MW-17C	MW-17A	MW-18	MW-18A	MW-18B	MW-18C	MW-18A	MW-19	MW-19	MW-19A	MW-19B	MW-19A
Sample Depth (well screen interval) (ft. bgs)				33'-47.5'	33'-47.5'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'
Sample Depth (well screen interval) (ft. btoc)	*Types 1*			35.5-50	35.5-50		29.7'-44.7'	29.7'-44.7'	29.7'-44.7'	29.6-44.6		38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7
Passive Diffusion Bag Sample Depth (ft. btoc)	*and 3*	*Type 2*	*Type 4*	46.4-47.9	36.4-37.9		31.1-32.6	36.1-37.6	41.1-42.6	31.1-32.6			39.9-41.4	44.9-46.4	39.9-41.4
Date Sampled	*RRS*	*RRS*	*RRS*	5/4/2004	10/12/2004	5/14/2003	5/4/2004	5/4/2004	5/4/2004	10/12/2004	5/28/2003	6/13/2003	5/5/2004	5/5/2004	10/12/2004
Laboratory	*(µg/L)*	*(µg/L)*	*(µg/L)*	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge/Sample Method				na/PDB	na/PDB	PumpLFLS/Bailer	na/PDB	na/PDB	na/PDB	na/PDB	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFSL/Bailer/ PDB	PumpLFSL/Bailer/ PDB	PumpLFSL/Bailer/ PDB
Constituent															
Volatile Organic Compounds - SW8260B - (µg/L)															
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<250	<500	<1200	<1200	<1700
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<250	<500	<1200	<1200	<1700
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<250	<500	<1200	<1200	<1700
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<5.0	<5.0	<2.5	<5.0	<5.0	<5.0	<5.0	<120	<250	<1200	<1200	<1700
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	380 B	<500	<1200	<1200	<1700
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<250	<500	<1200	<1200	<1700
Trichloroethene	*5*	*0.35*	*1.2*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	8000	12000	20000	19000	14000
Site-Specific Metals - SW6010B - (mg/L)															
Total Silver													<0.1		<0.1
Dissolved Silver													NA		na
Total Cadmium													<0.005		<0.005
Dissolved Cadmium													NA		na
Total Chromium													<0.1		<0.1
Dissolved Chromium						Metals were not sampled and analyzed					Metals were not sampled and analyzed		NA		na
Total Lead													<0.015		<0.015
Dissolved Lead													NA		na
Total Copper													<1.0		<1.0
Dissolved Copper													NA		na
Total Nickel													<0.1		<0.1
Dissolved Nickel													NA		na
Total Zinc													<2.0		<2.0
Dissolved Zinc													NA		na

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				MW-20								MW-21	
Sample ID				MW-20	MW-20 (12:10)	MW-20 (15:00)	MW-20 (17:30)	MW-20A	MW-20B	MW-20C	MW-20	MW-21	MW-21A
Sample Depth (well screen interval) (ft. bgs)				91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	89.7'-104.7'	89.7'-104.7'
Sample Depth (well screen interval) (ft. btoc)								92.6-94.1	97.6-99.1	102.6-104.1	92.6-94.1		89.4-104.4
Passive Diffusion Bag Sample Depth (ft. btoc)								92.6-94.1	97.6-99.1	102.6-104.1			90.7-92.2
Date Sampled				5/28/2003	6/12/2003	6/12/2003	6/12/2003	5/6/2004	5/6/2004	5/6/2004	10/28/2004	9/10/2003	5/7/2004
Laboratory				STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge/Sample Method				PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer	na/PDB	na/PDB	na/PDB	PumpLFLS/Bailer	PumpLFLS/Bailer	na/PDB
Constituent													
Volatile Organic Compounds - SW8260B - (µg/L)													
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	14	12	15	20	40	40	33	52	<2.5	<5.0
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<5.0	5.7	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<5.0	<5.0
Site-Specific Metals - SW6010B - (mg/L)													
Total Silver													
Dissolved Silver													
Total Cadmium													
Dissolved Cadmium													
Total Chromium													
Dissolved Chromium													
Total Lead				Metals were not sampled and analyzed								Metals were not sampled and analyzed	
Dissolved Lead													
Total Copper													
Dissolved Copper													
Total Nickel													
Dissolved Nickel													
Total Zinc													
Dissolved Zinc													

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				MW-21			MW-22				
Sample ID				MW-21B	MW-21C	MW-21A	MW-22	MW-22A	MW-22B	MW-22C	MW-22A
Sample Depth (well screen interval) (ft. bgs)				89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'
Sample Depth (well screen interval) (ft. btoc)	*Types 1*			89.4-104.4	89.4-104.4	89.4-104.4		98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7
Passive Diffusion Bag Sample Depth (ft. btoc)	*and 3*	*Type 2*	*Type 4*	95.7-97.2	100.7-102.2	90.7-92.2		100-101.5	105-106.5	110-111.5	100-101.5
Date Sampled	*RRS*	*RRS*	*RRS*	5/7/2004	5/7/2004	10/12/2004	9/10/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004
Laboratory	*(µg/L)*	*(µg/L)*	*(µg/L)*	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge/Sample Method				na/PDB	na/PDB	na/PDB	PumpLFLS/Bailer	na/PDB	na/PDB	na/PDB	na/PDB
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)											
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<5.0	<5.0	<5.0	<2.5	<5.0	<5.0	<5.0	<5.0
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Site-Specific Metals - SW6010B - (mg/L)											
Total Silver											
Dissolved Silver											
Total Cadmium											
Dissolved Cadmium											
Total Chromium											
Dissolved Chromium											
Total Lead					Metals were not sampled and analyzed			Metals were not sampled and analyzed			
Dissolved Lead											
Total Copper											
Dissolved Copper											
Total Nickel											
Dissolved Nickel											
Total Zinc											
Dissolved Zinc											

Table 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				MW-23				MW-23	MW-24	
Sample ID				MW-23	MW-23A	MW-23B	MW-23C	MW-23A	MW-24	MW-24
Sample Depth (well screen interval) (ft. bgs)				91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	136.9'-146.7'	136.9'-146.7'
Sample Depth (well screen interval) (ft. btoc)	*Types 1 and 3 RRS*	*Type 2 RRS*	*Type 4 RRS*		90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'		
Passive Diffusion Bag Sample Depth (ft. btoc)					92.1-93.6	97.1-98.6	102.1-103.5	92.1-93.6		
Date Sampled				9/11/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004	10/12/2004	10/28/2004
Laboratory				STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL Savannah	STL North Canton
Purge/Sample Method				PumpLFLS/Bailer	na/PDB	na/PDB	na/PDB	na/PDB	PumpLFLS/Bailer	PumpLFLS/Bailer
Constituent										
Volatile Organic Compounds - SW8260B - (µg/L)										
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<2.5	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0
Site-Specific Metals - SW6010B - (mg/L)										
Total Silver										
Dissolved Silver										
Total Cadmium										
Dissolved Cadmium										
Total Chromium										
Dissolved Chromium										
Total Lead				Metals were not sampled and analyzed					Metals were not sampled and analyzed	
Dissolved Lead										
Total Copper										
Dissolved Copper										
Total Nickel										
Dissolved Nickel										
Total Zinc										
Dissolved Zinc										

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				GW-E-1		GW-E-2	GW-E-3			GW-E-4		
Sample ID	*Type 1 and 3 RRS (µg/L)*	*Type 2 RRS (µg/L)*	*Type 4 RRS (µg/L)*	GW-E-1	GW-E-1	GW-E-2	GW-E-3	GW-E-3	GW-E-3	GW-E-4	GW-E-4	GW-E-4
Sample Depth (ft. bgs)				34'	48'	55'	44'-48'	52'-56'	56'-60'	44'-48'	48'-52'	60'-61'
Date Sampled				9/25/2000	9/26/2000	9/26/2000	10/2/2000	10/2/2000	10/2/2000	9/27/2000	9/27/2000	9/27/2000
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	2800	13	8.2	<5.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	440	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<2.5	<2.5	<2.5	<62	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	<5.0	<5.0	7.7	1800	35	41	16	<5.0	5.8

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				GW-E-5			GW-E-6			GW-E-7		
Sample ID	*Type 1 and 3 RRS (µg/L)*	*Type 2 RRS (µg/L)*	*Type 4 RRS (µg/L)*	GW-E-5	GW-E-5	GW-E-5	GW-E-6	GW-E-6	GW-E-6	GW-E-7	GW-E-7	GW-E-7
Sample Depth (ft. bgs)				40'-44'	44'-48'	54'-58'	40'-44'	52'-56'	56'-60'	31'-35'	35'-39'	48'-52'
Date Sampled				9/28/2000	9/28/2000	10/10/2000	10/3/2000	10/3/2000	10/4/2000	10/3/2000	10/3/2000	10/3/2000
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	14 B	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	20	<5.0	<5.0	<5.0	<5.0	<5.0	8.4	<5.0	<5.0

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				GW-E-8			GW-E-9			GW-E-10	
Sample ID	*Type 1 and 3 RRS (µg/L)*	*Type 2 RRS (µg/L)*	*Type 4 RRS (µg/L)*	GW-E-8	GW-E-8	GW-E-8	GW-E-9	GW-E-9	GW-E-9	GW-E-10	GW-E-10
Sample Depth (ft. bgs)				40'-44'	44'-48'	50'-54'	38'-42'	44'-48'	50'-54'	44'-48'	48'-52'
Date Sampled				10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)											
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<2.5	<2.5	<2.5	<3.6	<2.5	<2.5	<2.5	<2.5
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	21	<5.0	13	170	38	10	38	<5.0

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number	*Type 1*			GW-E-11			GW-E-12			GW-E-13		
Sample ID	*and 3 RRS*	*Type 2 RRS*	*Type 4 RRS*	GW-E-11	GW-E-11	GW-E-11	GW-E-12	GW-E-12	GW-E-12	GW-E-13	GW-E-13	GW-E-13
Sample Depth (ft. bgs)	*(µg/L)*	*(µg/L)*	*(µg/L)*	44'-48'	50'-54'	54'-58'	40'-44'	44'-48'	50'-54'	44'-48'	48'-52'	56'-60'
Date Sampled				10/5/2000	10/5/2000	10/5/2000	10/5/2000	10/5/2000	10/6/2000	10/9/2000	10/9/2000	10/9/2000
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	34	<5.0	<5.0	180	24	<170	500	50	12
1,1-Dichloroethene	*7*	*100*	*950*	23	<5.0	<5.0	<120	<17	<170	210	17	<5.0
Chloroform	*100*	*2.1*	*7.1*	<17	<5.0	<5.0	<120	<17	<170	<100	<10	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	12	<2.5	<2.5	<62	<8.3	<83	110	9.2	<2.5
Methylene chloride	*5*	*54*	*180*	<17	<5.0	<5.0	<120	<17	<170	<100	12 B	12 B
Toluene	*1,000*	*880*	*6,400*	<17	<5.0	<5.0	<120	<17	<170	<100	<10	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	520	26	150	3900	460	4200	3300	280	140

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				GW-E-14			GW-E-15			GW-E-16		
Sample ID	*Type 1 and 3 RRS (µg/L)*	*Type 2 RRS (µg/L)*	*Type 4 RRS (µg/L)*	GW-E-14 48'-52'	GW-E-14 52'-56'	GW-E-14 56'-60'	GW-E-15 48'-52'	GW-E-15 54'-58'	GW-E-15 61'-65'	GW-E-16 40'-44'	GW-E-16 50'-54'	GW-E-16 57'-61'
Sample Depth (ft. bgs)												
Date Sampled				10/6/2000	10/6/2000	10/6/2000	10/11/2000	10/11/2000	10/11/2000	10/13/2000	10/13/2000	10/13/2000
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	1400	1300	34	53	<5.0	<5.0	<5.0	<5.0	<120
1,1-Dichloroethene	*7*	*100*	*950*	260	310	7.9	<25	<5.0	<5.0	<5.0	<5.0	<120
Chloroform	*100*	*2.1*	*7.1*	<50	<42	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<120
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	69	68	<2.5	13	<2.5	<2.5	25	<2.5	<62
Methylene chloride	*5*	*54*	*180*	<50	<42	<5.0	39 B	13 B	9.9 B	14 B	15 B	<120
Toluene	*1,000*	*880*	*6,400*	<50	<42	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<120
Trichloroethene	*5*	*0.35*	*1.2*	1500	1500	67	610	87	10	7.9	<5.0	<120

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number				GW-E-17			GW-E-18			GW-E-19		
Sample ID	*Type 1 and 3 RRS (µg/L)*	*Type 2 RRS (µg/L)*	*Type 4 RRS (µg/L)*	GW-E-17	GW-E-17	GW-E-17	GW-E-18	GW-E-18	GW-E-18	GW-E-19	GW-E-19	GW-E-19
Sample Depth (ft. bgs)				48'-52'	55'-59'	62'-66'	51'-55'	60'-64'	68'-72'	51'-55'	59'-63'	70'-74'
Date Sampled				10/26/2000	10/26/2000	10/26/2000	10/25/2000	10/25/2000	10/25/2000	10/25/2000	10/25/2000	10/25/2000
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride	*5*	*54*	*180*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	17 B	26 B	18 B
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number	*Type 1 and 3 RRS (µg/L)*	*Type 2 RRS (µg/L)*	*Type 4 RRS (µg/L)*	GW-AOC 1-1			GW-AOC 2-1			GW-AOC 3-1		
Sample ID				GW-AOC 1-1	GW-AOC 1-1	GW-AOC 1-1	GW-AOC 2-1	GW-AOC 2-1	GW-AOC 2-1	GW-AOC 3-1	GW-AOC 3-1	GW-AOC 3-1
Sample Depth (ft. bgs)				40'-44'	52'-56'	59'-63'	42'-46'	52'-56'	62'-66'	40'-44'	50'-54'	55'-59'
Date Sampled				10/31/2000	10/31/2000	10/31/2000	10/17/2000	10/17/2000	10/17/2000	11/1/2000	11/1/2000	11/1/2000
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	83000	37000	1100	14	<5.0	<5.0	2700	1500	550
1,1-Dichloroethene	*7*	*100*	*950*	<4200	2000	<50	9.4	<5.0	<5.0	860	530	200
Chloroform	*100*	*2.1*	*7.1*	<4200	<1000	<50	<5.0	<5.0	<5.0	<250	<170	<100
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<2100	<500	<25	<2.5	<2.5	<2.5	190	100	32 J
Methylene chloride	*5*	*54*	*180*	<4200	<1000	<50	6.3 B	<5.0	12 B	<250	<170	<100
Toluene	*1,000*	*880*	*6,400*	<4200	<1000	<50	<5.0	<5.0	<5.0	<250	<170	<100
Trichloroethene	*5*	*0.35*	*1.2*	10000	4100	120	41	5.0	23	7900	6300	2200

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number	*Type 1 and 3 RRS*	*Type 2 RRS*	*Type 4 RRS*	GW-AOC 3-2			GW-AOC 8-1			GW-AOC 8-2		
Sample ID	*(µg/L)*	*(µg/L)*	*(µg/L)*	GW-AOC 3-2	GW-AOC 3-2	GW-AOC 3-2	GW-AOC 8-1	GW-AOC 8-1	GW-AOC 8-1	GW-AOC 8-2	GW-AOC 8-2	GW-AOC 8-2
Sample Depth (ft. bgs)				40'-44'	48'-52'	60'-64'	40'-44'	49'-53'	58'-62'	42'-46'	50'-54'	56'-60'
Date Sampled				10/30/2000	10/30/2000	10/30/2000	10/18/2000	10/19/2000	10/19/2000	10/19/2000	10/19/2000	10/19/2000
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	5600	39	9.9	3800	6.4	8.6	8000	55	94
1,1-Dichloroethene	*7*	*100*	*950*	1200	13	<5.0	790	<5.0	<5.0	1300	9.2	29
Chloroform	*100*	*2.1*	*7.1*	<500	<10	<5.0	<500	<5.0	<5.0	<250	<5.0	<17
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	270	8.3	<2.5	300	<2.5	<2.5	230	9.9	20
Methylene chloride	*5*	*54*	*180*	<500	<10	<5.0	<500	<5.0	11 B	840 B	<5.0	<17
Toluene	*1,000*	*880*	*6,400*	<500	<10	<5.0	<500	<5.0	<5.0	<250	<5.0	<17
Trichloroethene	*5*	*0.35*	*1.2*	7200	230	19	8600	23	28	6000	170	420

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number	*Type 1*			GW-AOC 9-1			GW-AOC 9-2			GW-AOC 10-1		
Sample ID	*and 3 RRS*	*Type 2 RRS*	*Type 4 RRS*	GW-AOC 9-1	GW-AOC 9-1	GW-AOC 9-1	GW-AOC 9-2	GW-AOC 9-2	GW-AOC 9-2	GW-AOC 10-1	GW-AOC 10-1	GW-AOC 10-1
Sample Depth (ft. bgs)	*(µg/L)*	*(µg/L)*	*(µg/L)*	40'-44'	50'-54'	58'-62'	44'-48'	50'-54'	58'-62'	44'-48'	52'-56'	60'-64'
Date Sampled				10/19/2000	10/20/2000	10/20/2000	10/20/2000	10/20/2000	10/20/2000	10/18/2000	10/18/2000	10/18/2000
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	2700	9.4	77
1,1-Dichloroethene	*7*	*100*	*950*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	430	<5.0	19
Chloroform	*100*	*2.1*	*7.1*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<170	<5.0	<10
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<83	<2.5	11
Methylene chloride	*5*	*54*	*180*	13 B	15 B	15 B	<5.0	<5.0	11 B	<170	<5.0	<10
Toluene	*1,000*	*880*	*6,400*	<5.0	<5.0	6.8	<5.0	5.9	<5.0	<170	<5.0	<10
Trichloroethene	*5*	*0.35*	*1.2*	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	2000	27	260

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number	*Type 1*			SB-113		SB-114		SB-115		SB-118	
Sample ID	*and 3 RRS*	*Type 2 RRS*	*Type 4 RRS*	SB-113	SB-113	SB-114	SB-114	SB-115	SB-115	SB-118	SB-118
Sample Depth (ft. bgs)	*(µg/L)*	*(µg/L)*	*(µg/L)*	43.5'-47.5'	57'-62'	45'-48'	60'-65'	24'-27'	33'-37'	6'-10'	17'-21'
Date Sampled				2/5/2003	2/5/2003	2/5/2003	2/6/2003	3/13/2003	3/13/2003	3/26/2003	3/26/2003
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)											
1,1,1-Trichloroethane	*200*	*1,000*	*8,900*	<3.3	<1.0	270	2.7	<42	<5.0	<17	<5.0
1,1-Dichloroethene	*7*	*100*	*950*	<3.3	<1.0	72	<1.0	<42	<5.0	<17	<5.0
Chloroform	*100*	*2.1*	*7.1*	<3.3	1.2	<25	1	<42	<5.0	<17	<5.0
cis-1,2-Dichloroethene	*70*	*160*	*1,000*	<1.7	<0.5	**27**	<0.5	<21	<2.5	9.6	<2.5
Methylene chloride	*5*	*54*	*180*	<3.3	<1.0	<25	<1.0	<42	<5.0	<17	<5.0
Toluene	*1,000*	*880*	*6,400*	<3.3	<1.0	<25	<1.0	<42	<5.0	<17	<5.0
Trichloroethene	*5*	*0.35*	*1.2*	93	20	700	13	780	<5.0	560	32

Notes:

na	Constituent not analyzed
bgs	Below ground surface
ft. bgs	Feet below ground surface
B	Result may be a false positive or biased high based upon blank data.
btoc	Below top of well casing
mg/L	Milligrams per liter
µg/L	Micrograms per liter
PumpLFLS/ Bailer	Well was purged using the low flow/low stress method with a submersible Grundfos pump and clean dedicated tubing and the ground-water sample was collected using a disposable teflon bailer and rope.
Bailer/Bailer	Well was purged and sampled with a bailer.
MW	Designates that groundwater sample was collected from a monitoring well.
GW	Designates that groundwater sample was collected from a direct push technology (DPT) boring.
SB	Designates that groundwater sample was collected from a DPT boring or via rotosonic soil coring.
RRS	Risk Reduction Standard
J	Estimated; result detected below the reporting limit but above the method detection limit or result is estimated based on the QC data.
PDB	Passive Diffusion Bag Sampler
	Concentration exceeds Types 1-4 RRSs

Prepared By: RNO 2/22/07
Checked By: JAH 2/23/07

Table 4.6: SUMMARY OF DETECTED ANALYTICAL RESULTS FOR SEEP AND SURFACE WATER SAMPLES

Sample Identification		**Manson Branch #1**			**Manson Branch #2**								
Sample Location		**Surface water in Manson Branch south side of Hwy 24 Bridge**			**Seep Down Slope of Thermo King**								
Sample Date	**Surface Water Criteria (µg/L)**	**5/3/2000**			**5/3/2000**			**11/2/2000**	**1/15/2003**	**3/24/2004**	**6/23/2004**	**8/31/2004**	**11/17/2004**
Laboratory		**Lancaster Labs**	**STL- North Canton**	**Savannah Labs**	**Lancaster Labs**	**STL- North Canton**	**Savannah Labs**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**
CONSTITUENT (µg/L)													
1,1,1-Trichloroethane	528 (a)	<5.0	<5.0	<5.0	200	160	170	290	15	39	300	**1900**	320
1,1-Dichloroethene	303 (a)/ 3.2 (b)	<5.0	<5.0	<5.0	69	50	52	97	12	24	<250	**1000**	210
cis-1,2-Dichloroethene	1350 (a)	<5.0	<2.5	<5.0	36	30	27	59	36	61	<250	<620	<190
Toluene	200,000 (b)	<5.0	<5.0	<5.0	<5.0	<17.0	<5.0	<25.0	<4.0	<6.7	<250	<620	<190
trans-1,2-Dichloroethene	1350 (a)	<5.0	<2.5	<5.0	<5.0	<8.3	<5.0	<25.0	<2.0	<6.7	<250	<620	<190
Trichloroethene	81 (b)	<5.0	<5.0	<5.0	**490**	**460**	**440**	**720**	**120**	**210**	**1300**	**4400**	**930**
Vinyl Chloride	525 (b)	<2.0	<5.0	<5.0	<2.0	<6.7	<2.0	<10.0	<4.0	<6.7	<100	<250	<77

Table 4.6: SUMMARY OF DETECTED ANALYTICAL RESULTS FOR SEEP AND SURFACE WATER SAMPLES

Sample Identification		**Manson Branch #3**	**Manson Branch #4**	**Manson Branch #5**	**Manson Branch #6**	**Manson Branch #7**	**Manson Branch #8**	**Manson Branch #9**	**Manson Branch #10**	**Manson Branch #11**	**Manson Branch #12**
Sample Location		**Surface water in Manson Branch located 500 ft downstream of Hwy 24**	**Surface water in Manson Branch located 700 ft downstream of Hwy 24**	**Surface water in Manson Branch located 900 ft downstream of Hwy 24**	**Surface water in Manson Branch located 1100 ft downstream of Hwy 24**	**Surface water in Manson Branch located 1300 ft downstream of Hwy 24**	**Surface water in Manson Branch located 1575 ft downstream of Hwy 24**	**Surface water in Manson Branch located 2900 ft upstream of Hwy 17**	**Surface water in Manson Branch located 2100 ft upstream of Hwy 17**	**Surface water in Manson Branch located 1200 ft upstream of Hwy 17**	**Surface water in Manson Branch located at Hwy 17 bridge**
Sample Date	**Surface Water Criteria (µg/L)**	**6/7/2000**	**6/7/2000**	**6/7/2000**	**6/7/2000**	**6/7/2000**	**6/7/2000**	**6/6/2000**	**6/6/2000**	**6/6/2000**	**6/6/2000**
Laboratory		**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**
CONSTITUENT (µg/L)											
1,1,1-Trichloroethane	528 (a)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	303 (a)/ 3.2 (b)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	1350 (a)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Toluene	200,000 (b)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	1350 (a)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Trichloroethene	81 (b)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	525 (b)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Table 4.6: SUMMARY OF DETECTED ANALYTICAL RESULTS FOR SEEP AND SURFACE WATER SAMPLES

Sample Identification		**Manson Branch #14**	**Manson Branch #15**	**Manson Branch #16**	**Manson Branch Seep West #1**	**Manson Branch Seep West #2 (Seep #2)**							**Manson Branch Seep West #3**
Sample Location		**Surface water in Manson Branch located at Hwy 24 bridge**	**Surface water in Manson Branch located about 450 ft downstream of Hwy 24 bridge**	**Surface water in Manson Branch located about 700 ft downstream of Hwy 24 bridge**	**Seep Located 1020 ft upstream of Hwy 17 on the west bank**	**Seep Located 350 ft downstream of Hwy 24 on the west bank**							**Seep located 700 ft downstream of Hwy 24 on the west bank**
Sample Date	**Surface Water Criteria (µg/L)**	**1/15/2003**	**1/15/2003**	**1/15/2003**	**6/7/2000**	**6/7/2000**	**11/2/2000**	**1/15/2003**	**3/24/2004**	**6/23/2004**	**8/30/2004**	**11/17/2004**	**6/7/2000**
Laboratory		**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**
CONSTITUENT (µg/L)													
1,1,1-Trichloroethane	528 (a)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	303 (a)/ 3.2 (b)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	1350 (a)	<0.50	<0.50	<0.50	<2.5	3.8	7.9	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5
Toluene	200,000 (b)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	1350 (a)	<0.50	<0.50	<0.50	<2.5	<2.5	<2.5	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5
Trichloroethene	81 (b)	<1.0	<1.0	<1.0	<5.0	<5.0	5.4	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	525 (b)	<1.0	<1.0	<1.0	<5.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0

Table 4.6: SUMMARY OF DETECTED ANALYTICAL RESULTS FOR SEEP AND SURFACE WATER SAMPLES

Sample Identification		**Seep A**					**Seep B**					**Seep C**				
Sample Location		**Northeast CornerThermo King Eastern Parcel**					**Thermo King Eastern Parcel**					**Thermo King Eastern Parcel**				
Sample Date	**Surface Water Criteria (µg/L)**	**1/15/2003**	**3/24/2004**	**6/23/2004**	**8/31/2004**	**11/17/2004**	**1/15/2003**	**3/24/2004**	**6/23/2004**	**8/30/2004**	**11/17/2004**	**1/15/2003**	**3/24/2004**	**6/23/2004**	**8/31/2004**	**11/17/2004**
Laboratory		**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**
CONSTITUENT (µg/L)																
1,1,1-Trichloroethane	528 (a)	<1.0		<5.0	<5.0		<1.0	<5.0	<5.0	<5.0	10	120	<140	<5.0	380	380
1,1-Dichloroethene	303 (a)/ 3.2 (b)	<1.0		<5.0	<5.0		<1.0	<5.0	<5.0	<5.0	<8.4	110	<140	<5.0	<310	240
cis-1,2-Dichloroethene	1350 (a)	<0.50	DRY	<5.0	<5.0	DRY	<0.50	<5.0	<5.0	<5.0	16	13	<140	<5.0	<310	<190
Toluene	200,000 (b)	<1.0	Not Sampled	<5.0	<5.0	Not Sampled	<1.0	<5.0	<5.0	<5.0	<8.4	<25	<140	<5.0	<310	<190
trans-1,2-Dichloroethene	1350 (a)	<0.50		<5.0	<5.0		<0.50	<5.0	<5.0	<5.0	<8.4	<12	<140	<5.0	<310	<190
Trichloroethene	81 (b)	<1.0		<5.0	<5.0		<1.0	<5.0	<5.0	<5.0	41	**840**	**720**	<5.0	**1300**	**1000**
Vinyl Chloride	525 (b)	<1.0		<2.0	<2.0		<1.0	<2.0	<2.0	<2.0	<3.3	<25	<57	<2.0	<120	<77

Table 4.6: SUMMARY OF DETECTED ANALYTICAL RESULTS FOR SEEP AND SURFACE WATER SAMPLES

Sample Identification		Seep D					Seep E			Seep F			Seep G				
Sample Location		Thermo King Eastern Parcel					South portion Thermo King Eastern Parcel			South portion Thermo King Eastern Parcel			Thermo King Eastern Parcel				
Sample Date	Surface Water Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	1/15/2003	3/24/2004 and 6/23/2004	8/31/2004 and 11/17/2004	1/15/2003	3/24/2004 and 6/23/2004	8/31/2004 and 11/17/2004	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton
CONSTITUENT (µg/L)																	
1,1,1-Trichloroethane	528 (a)	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0			<1.0			<1.0	<5.0	<5.0	<7.2	<5.0
1,1-Dichloroethene	303 (a)/ 3.2 (b)	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0			<1.0			<1.0	<5.0	<5.0	<7.2	<5.0
cis-1,2-Dichloroethene	1350 (a)	<0.50	<5.0	<5.0	<5.0	<5.0	<0.50	Not Sampled	Not Sampled	<0.50	Not Sampled	Not Sampled	0.73	13	9.3	<7.2	<5.0
Toluene	200,000 (b)	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0			<1.0			<1.0	<5.0	<5.0	<7.2	<5.0
trans-1,2-Dichloroethene	1350 (a)	<0.50	<5.0	<5.0	<5.0	<5.0	<0.50			<0.50			<0.50	<5.0	<5.0	<7.2	<5.0
Trichloroethene	81 (b)	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0			<1.0			<1.0	<5.0	<5.0	<7.2	<5.0
Vinyl Chloride	525 (b)	<1.0	<2.0	<2.0	<2.0	<2.0	<1.0			<1.0			<1.0	<2.0	<2.0	<2.9	<2.0

Table 4.6: SUMMARY OF DETECTED ANALYTICAL RESULTS FOR SEEP AND SURFACE WATER SAMPLES

Sample Identification		Seep H					Seep I					Seep J				
Sample Location		Thermo King Eastern Parcel					Thermo King Eastern Parcel					Thermo King Eastern Parcel				
Sample Date	Surface Water Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	1/15/2003	3/24/2004	6/23/2004	8/30-31/2004	11/17/2004	5/14/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton
CONSTITUENT (µg/L)																
1,1,1-Trichloroethane	528 (a)	<1.0	<5.0	<8.4	<5.0	<5.0	<1.0	<5.0	<5.0		<5.0	<25	<5.0	<12.0	<33	<25
1,1-Dichloroethene	303 (a)/ 3.2 (b)	<1.0	<5.0	<8.4	<5.0	<5.0	<1.0	<5.0	<5.0		<5.0	<25	<5.0	<12.0	<33	<25
cis-1,2-Dichloroethene	1350 (a)	6.9	12	30	13	27	<0.50	<5.0	<5.0	DRY	<5.0	910	84	66	190	110
Toluene	200,000 (b)	<1.0	<5.0	<8.4	<5.0	<5.0	<1.0	<5.0	<5.0	not sampled	<5.0	280	<5.0	<12.0	<33	<25
trans-1,2-Dichloroethene	1350 (a)	<0.50	<5.0	<8.4	<5.0	<5.0	<0.50	<5.0	<5.0		<5.0	13	<5.0	<12.0	<33	<25
Trichloroethene	81 (b)	24	15	<8.4	<5.0	7.1	<1.0	<5.0	<5.0		<5.0	<25	<5.0	<12.0	<33	<25
Vinyl Chloride	525 (b)	<1.0	<2.0	<3.3	<2.0	<2.0	<1.0	<2.0	<2.0		<2.0	<25	26	<5.0	<13	11

Table 4.6: SUMMARY OF DETECTED ANALYTICAL RESULTS FOR SEEP AND SURFACE WATER SAMPLES

Sample Identification		**Seep K**				**Seep L**			
Sample Location		**Northeast CornerThermo King Eastern Parcel**				**Northeast CornerThermo King Eastern Parcel**			
Sample Date	**Surface Water Criteria (µg/L)**	**3/24/2004**	**6/24/2004**	**8/31/2004**	**11/17/2004**	**3/24/2004**	**6/24/2004**	**8/31/2004**	**11/17/2004**
Laboratory		**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**
CONSTITUENT (µg/L)									
1,1,1-Trichloroethane	528 (a)	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	303 (a)/ 3.2 (b)	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	1350 (a)	10	<5.0	85	<5.0	5.4	<5.0	<5.0	<5.0
Toluene	200,000 (b)	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	1350 (a)	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	81 (b)	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	525 (b)	<2.0	<2.0	<8	<2.0	<2.0	<2.0	<2.0	<2.0

Notes:

µg/L	micrograms per liter
Hwy	Highway
E	Estimated; result exceeds calibration range
(a)	Region IV Ecological Freshwater Surface Water Screening Values USEPA 2001. USEPA Region IV Ecological Risk Assessment Bulletins
(b)	Georgia Instream Surface Water GADNR 2005 Rules and Regulations for Water Quality Control
BOLD	**Concentration exceeds Surface Water Criteria**

PREPARED BY/DATE: RNQ 2/8/07
CHECKED BY/DATE: JAH 2/23/07

TABLE 5.0
PROTECTED ANIMAL AND PLANT SPECIES OCCURRING WITHIN JEFFERSON AND SURROUNDING COUNTIES, GEORGIA.

Species Name (*Scientific Name*)	**Federal Status***	**State Status****	**Preferred Habitat**	**Habitat Available in Project Area**
BIRDS				
Bald Eagle (*Haliaeetus leucocephalus*)	T	E	Associated with coasts, rivers and lakes, usually nesting near bodies of water	No
Wood Stork (*Mycteria americana*)	E	E	Primarily feed in fresh and brackish wetlands and nest in cypress and other wooded swamps	Yes
Red-cockaded Woodpecker (*Picoides borealis*)	E	E	Open stands of mature pine trees with low understory vegetation	No
AMPHIBIANS				
Flatwoods Salamander (*Ambystoma cingulatum*)	T	T	Mesic pine/wiregrass flatwoods dominated by longleaf or slash pine; during breeding period, move to small shallow, acidic, ephemeral ponds in wet prairie/savannah habitat	Yes
Striped Newt (*Notophthalmus perstriatus*)	NFS	T	Pine flatwoods; ponds; ditches	Yes

TABLE 5.0
PROTECTED ANIMAL AND PLANT SPECIES OCCURRING WITHIN JEFFERSON AND SURROUNDING COUNTIES, GEORGIA.

Species Name (*Scientific Name*)	**Federal Status***	**State Status****	**Preferred Habitat**	**Habitat Available in Project Area**
REPTILES				
Gopher Tortoise (*Gopherus polyphemus*)	NFS	T	Well drained, sandy soils in forested and grassy areas; associated with pine overstory, open understory with grass and forb groundcover, and sunny areas for nesting	No
Eastern Indigo Snake (*Drymarchon couperi*)	T	T	During winter, den is xeric sandridge habitat preferred by gopher tortoises; during warm months, forage in creek bottoms, upland forests, and agricultural fields.	Yes
Spotted Turtle *(Clemmys guttata)*	NFS	U	Heavily vegetated swamps, marshes, bogs, and small ponds. Nest and hibernate possibly in surrounding uplands	Yes
Southern Hognose Snake *(Heterodon simus)*	NFS	T	Sandhills; fallowfields; longleaf pine-turkey oak.	No
FISH				
Robust Redhorse (*Moxostoma robustum*)	NFS	E	Medium to large rivers with shallow to deep flowing moderately swift water.	No
Sandbar Shiner (*Notropis scepticus*)	NFS	R	Large streams to medium-sized rivers in flowing pools over sandy to rocky substrates	No

TABLE 5.0
PROTECTED ANIMAL AND PLANT SPECIES OCCURRING WITHIN JEFFERSON AND SURROUNDING COUNTIES, GEORGIA.

Species Name (*Scientific Name*)	**Federal Status***	**State Status****	**Preferred Habitat**	**Habitat Available in Project Area**
MUSSELS				
Atlantic Pigtoe (*Fusconaia masoni*)	NFS	E	Streams with relatively fast flowing water and a coarse sand/gravel substrate	No

TABLE 5.0
PROTECTED ANIMAL AND PLANT SPECIES OCCURRING WITHIN JEFFERSON AND SURROUNDING COUNTIES, GEORGIA.

Species Name (*Scientific Name*)	**Federal Status***	**State Status****	**Preferred Habitat**	**Habitat Available in Project Area**
PLANTS				
Atlantic White-Cedar (*Chamaecyparis thyoides*)	NFS	R	Clearwater stream swamps in fall line sandhills	Yes
Bay Star-Vine (*Schisandra glabra*)	NFS	T	Twining on subcanopy and understory trees/shrubs in rich alluvial woods.	Yes
Canby's Dropwort (*Oxypolis canbyi*)	E	E	Peaty muck of shallow cypress ponds, wet pine savannahs, and adjacent sloughs and drainage ditches.	Yes
Cutleaf Beardtongue *(Penstemon dissectus)*	NFS	R	Altamaha Grit outcrops and adjacent pine savannas; rarely sandridges	No
Dwarf Witch-Alder (*Fothergilla gardenii*)	NFS	T	Low, flat, swampy areas, especially shrub-dominated margins of upland swamp (pocosins), Carolina bays, pitcherplant bogs, wet savannahs, and Atlantic white-cedar swamps.	Yes
Georgia Plume (*Elliottia racemosa*)	NFS	T	Sand ridges, dry oak ridges, evergreen hammocks, and sandstone outcrops in a variety of sandy soil conditions ranging from moist to very dry.	No
Granite Stonecrop (*Sedum pusillum*)	NFS	T	Granite outcrops among mosses in partial shade under red cedar trees.	No

TABLE 5.0
PROTECTED ANIMAL AND PLANT SPECIES OCCURRING WITHIN JEFFERSON AND SURROUNDING COUNTIES, GEORGIA.

Species Name (*Scientific Name*)	**Federal Status***	**State Status****	**Preferred Habitat**	**Habitat Available in Project Area**
PLANTS (cont.)				
Harper's Dodder (*Cuscuta harperi*)	NFS	E	Parasite usually found on rayless-goldenrod (Chondrophora virgata), blazing star (Liatris microcephala) or orange grass (Hypericum gentianoides); rarely parasitic on other herbs, found on granite or sandstone outcrops.	No
Indian Olive (*Nestronia umbellula*)	NFS	R	Dry open upland forest of mixed hardwood and pine.	Yes
Ocmulgee Skullcap (*Scutellaria ocmulgee*)	NFS	T	Forested terraces, hardwood slopes and riverbanks of tributaries to the Ocmulgee, Oconee, and Savannah Rivers.	Yes
Parrot Pitcher Plant (*Sarracenia psittacina*)	NFS	T	Acid soils of open bogs, wet savannahs, and low areas in pine flatwoods.	Yes
Pickering's Morning Glory (*Stylisma pickeringii var. pickeringii*)	NFS	T	Coarse white sands on sandhills near the Fall Line and on a few ancient dunes along the Flint and Ohoopee Rivers	No
Pineland Barbara Buttons (*Marshallia ramosa*)	NFS	R	Altamaha Grit outcrops; open forests over ultramafic rock	No
Purple Honeycomb Head (*Balduina atropurpurea*)	NFS	R	Wet savannahs, pitcherplant bogs	Yes
Sandhill Rosemary (*Ceratiola ericoides*)	NFS	T	Driest, openly vegetated, scrub oak sandhills and river dunes with deep white sands of the Kershaw soil series.	No
Shoals-Spider Lily *(Hymenocallis coronaria)*	NFS	T	Major streams and rivers in rocky shoals and in cracks of exposed bedrock; plants can be completely submerged during flooding.	No

TABLE 5.0
PROTECTED ANIMAL AND PLANT SPECIES OCCURRING WITHIN JEFFERSON AND SURROUNDING COUNTIES, GEORGIA.

Species Name (*Scientific Name*)	Federal Status*	State Status**	Preferred Habitat	Habitat Available in Project Area
PLANTS (cont.)				
Silky Camellia (*Stewartia malacodendron*)	NFS	R	Along streams on lower slopes of beech-magnolia or beech-basswood-Florida maple forests	No
Sweet Pitcherplant (*Sarracenia rubra*)	NFS	T	Acid soils of open bogs, sandhill seeps, Atlantic white-cedar swamps, wet savannahs, low areas in pine flatwoods, and along sloughs and ditches	Yes

Listed by the U.S. Fish and Wildlife Service, Region 4 website accessed on February 22, 2007 (updated in May 2004). Georgia Department of Natural Heritage updated the state's protective species list on October 26, 2006 and website accessed on February 22, 2007.

*Federal:
E - Endangered
T - Threatened
NFS – No Federal Status

**State:
E - Endangered
T - Threatened
R – Rare
U – Unusual

Prepared/Date: JCB 2/15/07
Checked/Date: LMS 2/22/07

TABLE 5.1
COMPARISON of SEEP WATER CONCENTRATIONS to AQUATIC WILDLIFE SCREENING VALUES

Parameter	Frequency of Detection (a)	Minimum Seep Concentration (ug/L)	Maximum Seep Concentration (ug/L)	Region IV Ecological Freshwater Surface Water Screening Values (b) (ug/L)	Georgia Instream Surface Water (c) (ug/L)	Ecological ORNL Freshwater Surface Water Screening Values (ug/L)	Exceedance Yes/No	Exposure Point Concentration
Volatile Organic Compounds (ug/L):								
1,1-Dichloroethene*	4/45	24	1,000	303	3.2	25	Yes	1,000
cis-1,2-Dichloroethene	15/45	5.4	190	1,350	NA	590	No	NA
1,1,1-Trichloroethane*	7/45	10	1,900	528	NA	11	Yes	1,900
Trichloroethene*	10/45	7.1	4,400	NA	81	470	Yes	4,400
Vinyl Chloride	2/45	11	26	NA	525	782	No	NA

Notes:

* Indicates constituent selected as a chemical of potential concern (ECOPC), based on Ecological Screening Values.

NA = Not applicable

(a) Number of samples in which chemical was positively detected / number of samples available for 2004.
Screening criteria is surface water screening values collected from:

(b) USEPA, 2001. USEPA Region IV Ecological Risk Assessment Bulletins. Value for trans-1,2-dichloroethene used for cis-1,2-dichloroethene.

(c) Ga DNR, 2004. Georgia Department of Natural Resources, Rules and Regulations for Water Quality Control, Chapter 391-3-6, February, 2004.

(d) Suter, G.W. II, and C.L. Tsao. 1996. Toxicological Benchmarks for screening of Potential Contaminants of Concern for Effects on Aquatic Biota on Oak Ridge Reservation: 1996 Revision. Oak Ridge National Laboratory, Oak Ridge, TN. 104 pp. ES/ER/RM-96/R2.

Indicates maximum constituent concentration exceeds the screening criteria.

Exposure point concentrations are the maximum concentration for COPCs.

Prepared By: JCB 2/20/07
Checked By: EFC 2/23/07

TABLE 5.2
SUMMARY of ECOLOGICAL RISKS in SURFACE SOIL (0 - 1 ft.)

Parameter	Frequency of Detection (a)	Minimum Detected Concentration (mg/kg)	Maximum Detected Concentration (mg/kg)	Dutch Ministry 2000 Values mg/kg (b)	Exposure Point Concentration (mg/kg) (c)
Volatile Organic Compounds:					
Isopropylbenzene	1/16	0.016	0.016	0.03	NA
Tetrachloroethene*	1/16	0.013	0.013	0.002	0.013
Trichloroethene **	2/16	0.015	0.023	0.1	0.023

* Indicates constituent selected as chemical of potential concern (ECOPC), based on Ecological Screening Values.
** Indicates constituent selected as chemical of potential concern (ECOPC), based on the selection of this chemical as an ECOPC in seep water.
NA Not Applicable
Indicates maximum constituent concentration exceeds the screening criteria.
(a) Number of samples in which chemical was positively detected / number of samples available. (surface soil samples collected from non-paved areas and from areas not covered by a building)
(b) Dutch Ministry Values, 2000. Annexes Circular on target values and intervention values for soil remediation, Ministerie van Volkshulsvesting, February 4, 2000. Updates values used by the Region 4 Bulletins.
(c) Exposure point concentration is the maximum concentration for the ECOPC.

Prepared By: JCB 2/20/07
Checked By: EFC 2/23/07

TABLE 5.3
SHORT TAILED SHREW TOXICITY REFERENCE VALUES

ANALYTE	NOAEL (mg/kg-BW-day)	TEST SPECIES	EFFECT	BODY WEIGHT OF TEST SPECIES (kg)	Short-Tailed Shrew TRV (mg/kg-BW-day)	REFERENCE
1,1-Dichloroethene	30	rat	Chronic NOAEL	0.35	30	Sample et al., 1996
1,1,1-Trichloroethane	1,000	mouse	Chronic NOAEL	0.035	1,216	Sample et al., 1996
Tetrachloroethene	1.4	mouse	Subchronic NOAEL	0.03	1.64	Sample et al., 1996
Trichloroethene	0.7	mouse	Subchronic NOAEL	0.03	0.82	Sample et al., 1996

Notes:
mg/kg-BW-day = milligrams per kilogram body weight per day
kg = kilogram
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Value

Prepared By: JCB 2/19/07
Checked By: EFC 2/23/07

TABLE 5.4
RACCOON TOXICITY REFERENCE VALUES

ANALYTE	NOAEL (mg/kg-BW-day)	TEST SPECIES	EFFECT	BODY WEIGHT OF TEST SPECIES (kg)	RACCOON TRV (mg/kg-BW-day)	REFERENCE
1,1-Dichloroethene	30	Rat	Chronic NOAEL	0.35	16	Sample et al., 1996
1,1,1-Trichloroethane	1000	Mouse	Chronic NOAEL	0.035	310	Sample et al., 1996
Tetrachloroethene	1.4	Mouse	Subchronic NOAEL	0.03	0.41	Sample et al., 1996
Trichloroethene	0.7	Mouse	Subchronic LOAEL	0.03	0.21	Sample et al., 1996

Notes:
mg/kg-BW-day = milligrams per kilogram body weight per day
kg = kilogram
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Value

Prepared By: JCB 2/19/07
Checked By: EFC 2/23/07

TABLE 5.5
NORTHERN BOBWHITE TOXICITY REFERENCE VALUES

ANALYTE	NOAEL (mg/kg-BW-day)	TEST SPECIES	EFFECT	BODY WEIGHT OF TEST SPECIES (kg)	NORTHERN BOBWHITE TRV (mg/kg-BW-day)	REFERENCE
1,1-Dichloroethene	30	Rat	Chronic NOAEL (g)	0.35	36	Sample et al., 1996
1,1,1-Trichloroethane	1000	Mouse	Chronic NOAEL	0.035	680	Sample et al., 1996
Tetrachloroethene	1.4	Mouse	Subchronic NOAEL	0.03	0.92	Sample et al., 1996
Trichloroethene	0.7	Mouse	Subchronic LOAEL	0.03	0.46	Sample et al., 1996

Notes:
mg/kg-BW-day = milligrams per kilogram body weight per day
kg = kilogram
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Value

Prepared By: JCB 2/22/07
Checked By: EFC 2/23/07

TABLE 5.6
SHORT-TAILED SHREW EXPOSURE PARAMETERS

EXPOSURE PARAMETER (a)	DESCRIPTION (a)	VALUES SELECTED FOR EXPOSURE/RISK CALCULATIONS (a)
Short-Tailed Shrew	Order: *Insectivora* Family: *Soricidae* Genus: *Blarina* Species*: blevicauda*	
Body Weight (BW)(kg)	The average body weight for males and females in a summer study (Pennsylvania).	0.015 kg
Dietary Makeup	The short-tailed shrew is primarily carnivorous. Diet consists primarily of invertebrates. Small mammals are consumed when invertebrates become less available (New York).	Invertebrates – 70% Vegetation – 13% Small mammals – 8% Soil – 9%
Ingestion Rate for Food (IR_F) (kg/day)	Food ingestion rate of the short-tailed shrew (Ohio/lab).	0.009 kg/day
Ingestion Rate for Water (IR_W) (L/day)	Water ingestion rate of the short-tailed shrew (Illinois/lab) using an average adult BW of 18 grams and an average water ingestion rate of 0.223 g water/g BW/day. (0.223 g water/g BW/day x 18 g BW x 1.04E-03 L/day)	0.0033 L/day
Home Range	The average female home range in a Manitoba tamarack bog or in Michigan bluegrass is approximately 1 acre. The maximum male home range in Michigan bluegrass is approximately 4.5 acres.	1 acre (43,560 ft^2)
Site Foraging Frequency (SFF) (unitless)	The SFF is the ratio of the site area to home range, not to exceed a maximum value of 1.0. As a conservative assumption, the river segment evaluated is considered representative of the shrew's entire home range.	1 (Maximum exposure scenario)
Exposure Frequency (unitless) (EF)	Shrews are active all year round and do not hibernate.	1

TABLE 5.6
SHORT-TAILED SHREW EXPOSURE PARAMETERS

(a) Wildlife Exposure Factors Handbook (USEPA, 1993)

$$\text{Estimated ingestion (mg/kg-day)} = \frac{SFF \times IR_F \times EF \times [(C_{SOIL} \times BCF_{INV} \times P_{INV}) + (C_{SOIL} \times BCF_V \times P_V) + (C_{SOIL} \times BCF_M \times P_M) + (C_{SOIL} \times P_{SOIL})]}{BW} + \frac{(C_W \times IR_W \times EF)}{BW}$$

Where:

P_{INV}	=	Proportion of the diet comprised of invertebrates (unitless)
P_{SOIL}	=	Proportion of the diet comprised of soil (unitless)
P_V	=	Proportion of the diet comprised of vegetation (unitless)
P_M	=	Proportion of the diet comprised of mammals (unitless)
C_{SOIL}	=	Chemical concentration in soil (mg/kg)
C_W	=	Chemical concentration in water (mg/L)
IR_F	=	Ingestion rate of food (kg/day)
IR_W	=	Ingestion rate of water (L/day)
SFF	=	Site foraging frequency (unitless)
EF	=	Exposure frequency (unitless)
BW	=	Body weight (kg)
BCF_{INV}	=	Bioconcentration factor for invertebrates (unitless)
BCF_V	=	Bioconcentration factor for vegetation (unitless)
BCF_M	=	Bioconcentration factor for mammals (unitless)

mg/L = milligrams per liter
kg = kilograms
% = percent
kg/day = kilograms per day
L/day = liters per day
mg/kg = milligrams per kilogram
ft^2 = square feet
g water/g BW/day = gram water per gram body weight per day
mg/kg-day = milligrams per kilogram per day

Prepared By: JCB 2/21/07
Checked By: EFC 2/23/07

TABLE 5.7
RACCOON EXPOSURE PARAMETERS

EXPOSURE PARAMETER (a)	DESCRIPTION (a)	VALUES SELECTED FOR EXPOSURE/RISK CALCULATIONS (a)
Raccoon	Order: *Carnivora* Family: *Procyonidae* Genus: *Procyon* Species*: lotor*	
Body Weight (BW)(kg)	Adult males are typically larger than adult females. The average body weight for adults is 3.99 kg, but ranges up to 8.8 kg (Alabama).	3.99 kg
Dietary Makeup	Raccoons are omnivorous and opportunistic feeders. The proportion of different foods in their diet depends on the location and season (annual average for Tennessee were used). Averaging and totaling each dietary item in the WEFH totals to 98%. The remaining 2% of dietary intake was added to vegetation. For the purposes of the risk calculation and due to the lack of crayfish and amphibians at the site, the proportion for the diet for crayfish, amphibians, and insects are assumed to be soil invertebrates.	Soil Invertebrates – 11% Birds – 3% Vegetation –82% Soil – 4%
Ingestion Rate for Food (IR_F) (kg/day)	The average BW of 3.99 kg was used to estimate the Ingestion Rate for Food using: IR_F(kg/day) = 0.0687 x $BW^{0.822}$ (kg).	0.21 kg/day
Ingestion Rate for Water (IR_W) (L/day)	The Ingestion Rate for Water was estimated using the average BW of 3.99 kg and a mean water ingestion rate of 0.0825 g/g-day. (0.0825 g water/g BW/day x 3,990 g BW x 1.0E-03 L/g = 0.33 L/day)	0.33 L/day
Home Range	Average for males and females, May to December from riparian habitat (Michigan).	386 acres
Site Foraging Frequency (SFF) (unitless)	The SFF is the ratio of the site area to home range, not to exceed a maximum value of 1.0. As a conservative assumption, the site evaluated is considered representative of the raccoon's home range.	SFF=1 (Maximum exposure scenario)
Exposure Frequency (EF) (unitless)	Raccoons are active all year round and do not hibernate.	1

TABLE 5.7
RACCOON EXPOSURE PARAMETERS

(a) Wildlife Exposure Factors Handbook (USEPA, 1993)

$$\text{Estimated ingestion (mg/kg-day)} = \frac{SFF \times IR_F \times EF \times [(C_{SOIL} \times P_{SOIL}) + (C_{SOIL} \times BCF_{SI} \times P_{SI}) + (C_{SOIL} \times BCF_V \times P_V) + (C_{SOIL} \times BCF_B \times P_B)]}{BW} + \frac{(C_W \times IR_W \times EF)}{BW}$$

Where:	P_{SOIL}	=	Proportion of the diet comprised of surface soil (unitless)
	P_{SI}	=	Proportion of the diet comprised of soil invertebrates (unitless)
	P_V	=	Proportion of the diet comprised of vegetation (unitless)
	P_B	=	Proportion of the diet comprised of birds (unitless)
	C_{SI}	=	Chemical concentration in soil invertebrates (mg/kg)
	C_{SOIL}	=	Chemical concentration in surface soil (mg/kg)
	C_W	=	Chemical concentration in water (mg/L)
	IR_F	=	Ingestion rate of food (kg/day)
	IR_W	=	Ingestion rate of water (L/day)
	SFF	=	Site foraging frequency (unitless)
	EF	=	Exposure frequency (unitless)
	BW	=	Body weight (kg)
	BCF_{SI}	=	Bioconcentration factor for soil invertebrates (unitless)
	BCF_B	=	Bioconcentration factor for birds (unitless)
	BCF_V	=	Bioconcentration factor for vegetation (unitless)

kg = kilograms
% = percent
kg/day = kilograms per day
L/day = liters per day
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
WEFH = Wildlife Exposure Factors Handbook
mg/kg –day = milligrams per kilogram per day

Prepared By: JCB 2/22/07
Checked By: EFC 2/23/07

TABLE 5.8
NORTHERN BOBWHITE EXPOSURE PARAMETERS

EXPOSURE PARAMETER (a)	DESCRIPTION (a)	VALUES SELECTED FOR EXPOSURE/RISK CALCULATIONS (a)
Northern Bobwhite	Order: *Galliformes* Family: *Phasiadinae* Genus: *Colinus* Species*: virginianus*	
Body Weight (BW)(kg)	Average adult weight is 0.16 kg, but ranges from 0.154 to 0.161 kg (Texas).	0.16 kg
Dietary Makeup	Northern bobwhites feed primarily on vegetation found in idle farms, woods, and brush. Some insects may also be consumed depending on availability. Dietary percentages are based on measurements in the southeastern United States.	Vegetation – 84% Invertebrates – 14% Soil – 2%
Ingestion Rate for Food (IR_F) (kg/day)	Food ingestion rate based on a mixed study of males and consisting of an earthworm diet (Texas). The mean food ingestion rate (0.078 g food/g BW/day) and average adult BW of 0.16 kg were used to estimate the Food Ingestion Rate. (0.078 g food/g BW/day x 160 g BW = 120 g/day)	0.012 kg/day
Ingestion Rate for Water (IR_W) (L/day)	Water ingestion rate is calculated using the average adult BW of 0.16 kg and an estimated mean ingestion rate of 0.12 g water/g BW/day). (0.12 g water/g BW/day x 160 g BW x 1.0E-03 L/g = 0.019 L/day)	0.019 L/day
Home Range	The average home range for male and female, adults and juveniles is 6.8 acres (Tennessee).	6.8 acres
Site Foraging Frequency (SFF) (unitless)	The SFF is the ratio of the site area to home range, not to exceed a maximum value of 1.0.	SFF = 1 (Maximum exposure scenario)
Exposure Frequency (unitless) (EF)	The northern bobwhite is a year-round resident.	1

TABLE 5.8
NORTHERN BOBWHITE EXPOSURE PARAMETERS

(a) Wildlife Exposure Factors Handbook (USEPA, 1993)

$$\text{Estimated ingestion (mg/kg-day)} = \frac{SFF \times IR_F \times EF \times [(C_{SOIL} \times BCF_{INV} \times P_{INV}) + (C_{SOIL} \times BCF_V \times P_V) + (C_{SOIL} \times P_{SOIL})]}{BW} + \frac{(C_W \times IR_W \times EF)}{BW}$$

Where:

	P_{INV}	=	Proportion of the diet comprised of invertebrates (unitless)
	P_{SOIL}	=	Proportion of the diet comprised of soil (unitless)
	P_V	=	Proportion of the diet comprised of vegetation (unitless)
	C_W	=	Chemical concentration in water (mg/L)
	C_{SOIL}	=	Chemical concentration in soil (mg/kg)
	IR_F	=	Ingestion rate of food (kg/day)
	IR_W	=	Ingestion rate of water (L/day)
	SFF	=	Site foraging frequency (unitless)
	EF	=	Exposure frequency (unitless)
	BW	=	Body weight (kg)
	BCF_{INV}	=	Bioconcentration factor for invertebrates (unitless)
	BCF_V	=	Bioconcentration factor for vegetation (unitless)

kg = kilograms
% = percent
kg/day = kilograms per day
L/day = liters per day
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
mg/kg-day = milligrams per kilograms per day

Prepared By: JCB 2/20/07
Checked By: EFC 2/23/07

TABLE 5.9
NOAEL RISK CALCULATION FOR THE SHORT-TAILED SHREW

Analyte	Soil Exposure Point Concentration (mg/kg)	Water Exposure Point Concentration (mg/L)	Exposure Value Type	BCF_{INV}	BCF_V	BCF_M	Intake (mg/kg-day)	NOAEL TRVs (mg/kg-day)	Hazard Quotient
1,1-Dichloroethene	0.001	1.0	max	2.09E+00	3.56E+00	5.06E-10	2.2E-01	6.6E+01	0.0034
1,1,1-Trichloroethane	0.001	1.9	max	7.68E+00	1.43E+00	5.06E-10	4.2E-01	1.2E+03	0.00035
Tetrachloroethene	0.013	0.0025	max	1.10E+01	1.11E+00	5.06E-10	6.2E-02	1.6E+00	0.038
Trichloroethene	0.023	4.4	max	1.18E+01	1.05E+00	5.06E-10	1.1E+00	8.20E-01	1.3
								Hazard Index:	1.4

BCF_M = Bioconcentration factor for mammals based on vinyl chloride (USEPA, 1999)
BCF_{INV} = Bioconcentration factor for invertebrates based on vinyl chloride (USEPA, 1999)
BCF_V = Bioconcentration factor for vegetation
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Values (Sample et al, 1996)
mg/kg = milligrams per kilograms
mg/L = milligrams per liter
max = maximum concentration of seeps
mg/kg-day = milligrams per kilogram per day
Equations:
HQ = Intake / NOAEL TRV
HI = Sum of HIs

PREPARED/DATE: JCB 2/20/07
CHECKED/DATE: EFC 2/23/07

NOTE: for 1,1-DCE, 1,1,1-TCE - soil concentration is 1/2 lowest detection limit and for tetrachloroethene water concentration is 1/2 lowest detection limit.

TABLE 5.10
NOAEL RISK CALCULATION FOR THE RACCOON

Analyte	Soil Exposure Point Concentration (mg/kg)	Water Exposure Point Concentration (mg/L)	Exposure Value Type	BCF_V	BCF_{Inv}	BCF_B	Intake (mg/kg-day)	NOAEL TRVs (mg/kg-day)	Hazard Quotient
1,1-Dichloroethene	0.001	1.0	max	3.56E+00	2.09E+00	3.32E-09	8.5E-02	1.6E+01	0.0053
1,1,1-Trichloroethane	0.001	1.9	max	1.43E+00	7.68E+00	3.32E-09	1.6E-01	3.1E+02	0.00052
Tetrachloroethene	0.013	0.0025	max	1.11E+00	1.10E+01	3.32E-09	1.7E-03	4.1E-01	0.0041
Trichloroethene	0.023	4.4	max	1.05E+00	1.18E+01	3.32E-09	3.8E-01	2.1E-01	1.8
								Hazard Index:	1.8

BCF_M = Bioconcentration factor for mammals based on vinyl chloride (USEPA, 1999)
BCF_{INV} = Bioconcentration factor for invertebrates based on vinyl chloride (USEPA, 1999)
BCF_B = Bioconcentration factor for birds (see Section 8.9.2)
BCF_V = Bioconcentration factor for vegetation
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Values
mg/kg = milligrams per kilograms
mg/L = milligrams per liter
max = maximum concentration of seeps
mg/kg-day = milligrams per kilogram per day

PREPARED/DATE: JCB 2/20/07
CHECKED/DATE: EFC 2/23/07

Equations:

HQ = Intake / NOAEL TRV

HI = Sum of HQs

NOTE: for 1,1-DCE, 1,1,1-TCE - soil concentration is 1/2 lowest detection limit and for tetrachloroethene water concentration is 1/2 lowest detection limit.

TABLE 5.11
NOAEL RISK CALCULATION FOR THE NORTHERN BOBWHITE

Analyte	Soil Exposure Point Concentration (mg/kg)	Water Exposure Point Concentration (mg/L)	Exposure Value Type	BCF_V	BCF_{Inv}	Intake (mg/kg-day)	NOAEL TRVs (mg/kg-day)	Hazard Quotient
1,1-Dichloroethene	0.001	1.0	max	3.56E+00	2.09E+00	1.2E-01	3.6E+01	0.0034
1,1,1-Trichloroethane	0.001	1.9	max	1.43E+00	7.68E+00	2.4E-01	6.8E+02	0.00035
Tetrachloroethene	0.013	0.0025	max	1.11E+00	1.10E+01	2.7E-03	9.2E-01	0.0030
Trichloroethene	0.023	4.4	max	1.05E+00	1.18E+01	5.5E-01	4.6E-01	1.2
							Hazard Index:	1.2

BCF_{INV} = Bioconcentration factor for invertebrates based on vinyl chloride (USEPA, 1999)
BCF_B = Bioconcentration factor for birds based on vinyl chloride (USEPA, 1999)
BCF_V = Bioconcentration factor for vegetation
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Values
mg/kg = milligrams per kilograms
mg/L = milligrams per liter
max = maximum concentration of seeps
mg/kg-day = milligrams per kilogram per day

PREPARED/DATE: JCB 2/23/07
CHECKED/DATE: EFC 2/27/07

Equations:
HQ = Intake / NOAEL TRV
HI = Sum of HQs

NOTE: for 1,1-DCE, 1,1,1-TCE - soil concentration is 1/2 lowest detection limit and for tetrachloroethene water concentration is 1/2 lowest detection limit.

TABLE 5.12
TCE ECOLOGICAL EXPOSURE POINT CONCENTRATION

Location	Date	Seep Water TCE Concentration (mg/L)		Location	Date	Seep Water TCE Concentration (mg/L)
Manson Branch #2	March 2004	0.21		Manson Branch #2	March 2004	0.21
	June 2004	1.3			June 2004	1.3
	August 2004	4.4			August 2004	4.4
	November 2004	0.93			November 2004	0.93
Manson Branch Seep West #2	March 2004	0.0025	(a)			
	June 2004	0.0025	(a)	**TCE Mean Concentration**		
	August 2004	0.0025	(a)	**for Manson Branch #2**		**1.7**
	November 2004	0.0025	(a)			
Seep A	June 2004	0.0025	(a)			
	August 2004	0.0025	(a)			
Seep B	March 2004	0.0025	(a)			
	June 2004	0.0025	(a)			
	August 2004	0.0025	(a)			
	November 2004	0.041				
Seep C	March 2004	0.72				
	June 2004	0.0025	(a)			
	August 2004	1.3				
	November 2004	1.0				
Seep D	March 2004	0.0025	(a)			
	June 2004	0.0025	(a)			
	August 2004	0.0025	(a)			
	November 2004	0.0025	(a)			
Seep G	March 2004	0.0025	(a)			
	June 2004	0.0025	(a)			
	August 2004	0.0036	(a)			
	November 2004	0.0025	(a)			
Seep H	March 2004	0.015				
	June 2004	0.0042	(a)			
	August 2004	0.0025	(a)			
	November 2004	0.0071				
Seep I	March 2004	0.0025	(a)			
	June 2004	0.0025	(a)			
	November 2004	0.0025	(a)			
Seep J	March 2004	0.0025	(a)			
	June 2004	0.006	(a)			
	August 2004	0.0165	(a)			
	November 2004	0.0125	(a)			
Seep K	March 2004	0.0025	(a)			
	June 2004	0.0025	(a)			
	August 2004	0.01	(a)			
	November 2004	0.0025	(a)			
Seep L	March 2004	0.0025	(a)			
	June 2004	0.0025	(a)			
	August 2004	0.0025	(a)			
	November 2004	0.0025	(a)			
	TCE Mean Concentration for All Seeps	**0.22**				

(a) Footnoted TCE concentrations are non-detect and the listed concentration is 1/2 the detection limit.

PREPARED BY/DATE: RNQ 3/7/05
CHECKED BY/DATE: EFC 2/23/07

TABLE 5.13
NOAEL RISK CALCULATION FOR THE SHORT-TAILED SHREW (MANSON BRANCH #2)

Analyte	Soil Exposure Point Concentration (mg/kg)	Water Exposure Point Concentration (mg/L)	Exposure Value Type	BCF_{INV}	BCF_V	BCF_M	Intake (mg/kg-day)	NOAEL TRVs (mg/kg-day)	Hazard Quotient
Trichloroethene	0.023	1.7	mean	1.18E+01	1.05E+00	5.06E-10	4.9E-01	8.20E-01	0.60
								Hazard Index:	0.60

BCF_M = Bioconcentration factor for mammals based on vinyl chloride (USEPA, 1999)
BCF_{INV} = Bioconcentration factor for invertebrates based on vinyl chloride (USEPA, 1999)
BCF_V = Bioconcentration factor for vegetation
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Values (Sample et al, 1996)
mg/kg = milligrams per kilograms
mg/L = milligrams per liter
mean = mean concentration of seeps
mg/kg-day = milligrams per kilogram per day
Equations:
HQ = Intake / NOAEL TRV
HI = Sum of HIs

PREPARED/DATE: JCB 2/20/07
CHECKED/DATE: EFC 2/23/07

TABLE 5.14
NOAEL RISK CALCULATION FOR THE RACCOON (MANSON BRANCH #2)

Analyte	Soil Exposure Point Concentration (mg/kg)	Water Exposure Point Concentration (mg/L)	Exposure Value Type	BCF_V	BCF_{Inv}	BCF_B	Intake (mg/kg-day)	NOAEL TRVs (mg/kg-day)	Hazard Quotient
Trichloroethene	0.023	1.7	mean	1.05E+00	1.18E+01	3.32E-09	1.5E-01	2.1E-01	0.70
								Hazard Index:	0.70

BCF_M = Bioconcentration factor for mammals based on vinyl chloride (USEPA, 1999)
BCF_{INV} = Bioconcentration factor for invertebrates based on vinyl chloride (USEPA, 1999)
BCF_B = Bioconcentration factor for birds (see Section 8.9.2)
BCF_V = Bioconcentration factor for vegetation
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Values
mg/kg = milligrams per kilograms
mg/L = milligrams per liter
mean = mean concentration of seeps
mg/kg-day = milligrams per kilogram per day

PREPARED BY/DATE: JCB 2/20/07
CHECKED BY/DATE: EFC 2/23/07

Equations:

HQ = Intake / NOAEL TRV
HI = Sum of HQs

TABLE 5.15
NOAEL RISK CALCULATION FOR THE NORTHERN BOBWHITE (MANSON BRANCH #2)

Analyte	Soil Exposure Point Concentration (mg/kg)	Water Exposure Point Concentration (mg/L)	Exposure Value Type	BCF_V	BCF_{Inv}	Intake (mg/kg-day)	NOAEL TRVs (mg/kg-day)	Hazard Quotient
Trichloroethene	0.023	1.7	mean	1.05E+00	1.18E+01	2.1E-01	4.6E-01	0.47
							Hazard Index:	0.47

BCF_{INV} = Bioconcentration factor for invertebrates based on vinyl chloride (USEPA, 1999)
BCF_B = Bioconcentration factor for birds based on vinyl chloride (USEPA, 1999)
BCF_V = Bioconcentration factor for vegetation
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Values
mg/kg = milligrams per kilograms
mg/L = milligrams per liter
mean = mean concentration of seeps
mg/kg-day = milligrams per kilogram per day

PREPARED BY/DATE: JCB 2/21/07
CHECKED BY/DATE: EFC 2/2307

Equations:
HQ = Intake / NOAEL TRV
HI = Sum of HQs

TABLE 5.16
SUMMARY of NOAEL HAZARD INDICES

Ecological Receptor	NOAEL Hazard Index
Species:	**Using Maximum Detected Seep Concentration**
Short-Tailed Shrew	1.4
Raccoon	1.8
Northern Bobwhite	1.2
Species:	**Using Mean Seep Concentration for Manson Branch Seep #2**
Short-Tailed Shrew	0.60
Raccoon	0.70
Northern Bobwhite	0.47

NOAEL = No Observed Adverse Effects Level

Prepared By: JCB 2/19/07
Checked By: EFC 2/23/07

TABLE 6.0: RISK REDUCTION STANDARDS FOR GROUND WATER

HSRA-Regulated Substance	Maximum Detected Concentrations (mg/l)	Risk Reduction Standards (RRS) (mg/l)								
		Types 1 and 3			Type 2			Type 4		
		RRS	Reference	Status	RRS	Reference	Status	RRS	Reference	Status
Volatile Organic Compounds - SW8260B										
1,1,1-Trichloroethane	83	0.2	A	E	1.0	child, nc	E	8.9	adult, nc	**E**
1,1-Dichloroethene	2	0.007	A	E	0.1	child, nc	E	0.95	adult, nc	**E**
cis-1,2-Dichloroethene	0.53	0.07	MCL	E	0.16	child, nc	E	1.0	adult, nc	C
Chloroform	0.0077	0.1	A	C	0.0021	adult, c	***	0.0071	adult, c	***
Toluene	0.029	1.0	A	C	0.88	child, nc	***	6.4	adult, nc	***
Trichloroethene	20	0.005	A	E	0.00035	adult, c	E	0.0012	adult, c	**E**

Notes:
mg/l = milligram per liter
Reference = Reference for the RRS
*** Substance concentrations complies with a lower RRS
C = Substance concentration meets the respective RRS
E = Substance concentration exceeds the respective RRS
Child = Residential child RRS
Bold Substance concentrations exceeds Types 1/3, 2, and 4 RRS
A = Table 1, Appendix III, HSRA Rule
MCL = Maximum contaminant level
child, nc = Non-carcinogenic RRS for a child
adult, c = Carcinogenic RRS for an adult
adult, nc = Non-carcinogenic RRS for an adult

PREPARED BY: RNQ 2/22/07
CHECKED BY: LMS 2/27/07

TABLE 6.1: RISK REDUCTION STANDARDS FOR SOILS - TYPES 1 through 4

			Risk Reduction Standards (RRS) (mg/kg)														
	Maximum Detected Concentrations (mg/kg)		Type 1			Type 2			Type 3 Surface			Type 3 Subsurface			Type 4		
HSRA-Regulated Substance	**Surface (a)**	**Subsurface (b)**	**RRS**	**Reference**	**Status**	**RRS**	**Reference**	**Status**	**RRS**	**Reference**	**Status**	**RRS**	**Reference**	**Status**	**RRS**	**Reference**	**Status**
Volatile Organic Compounds - SW8260B																	
1,1,1-Trichloroethane	0.18	2.3	20	GW x 100	C	49	Leaching	***	20	GW x 100	***	20	GW x 100	***	440	G	***
1,1,2-Trichloroethane	0.026	0.015	0.5	GW x 100	C	0.12	Leaching	***	0.5	GW x 100	***	0.5	GW x 100	***	0.2	G	***
1,1-Dichloroethene	0.023	0.051	0.7	GW x 100	C	2.9	Leaching	***	0.7	GW x 100	***	0.7	GW x 100	***	28	G	***
1,4-Dioxane	3600	2800	25	GW x 100	**E**	2.7	Leaching	**E**	25	GW x 100	**E**	25	GW x 100	E	2.8	G	**E**
cis-1,2-Dichloroethene	0.6	0.38	7	GW x 100	C	13.0	Leaching	***	7	GW x 100	***	7	GW x 100	***	18	G	***
Ethylbenzene	ND	0.36	70	GW x 100	C	100	Leaching	***	70	GW x 100	***	70	GW x 100	***	550	G	***
Isopropylbenzene	0.016	ND	22	Appendix I	C	1500	child, nc	***	22	Appendix I	***	22	Appendix I	***	8600	G	***
Napthalene	ND	0.31	100	Appendix I	C	16	Leaching	***	100	Appendix I	***	100	Appendix I	***	16	G	***
m+p Xylene	ND	1.4	1000	GW x 100	C	210	child, nc	***	1000	GW x 100	***	1000	GW x 100	***	1100	G	***
Tetrachloroethene	0.013	0.011	0.5	GW x 100	C	0.34	Leaching	***	0.5	GW x 100	***	0.5	GW x 100	***	0.34	G	***
Trichloroethene	4.1	2.6	0.5	GW x 100	**E**	0.79	adult, c	**E**	0.5	GW x 100	**E**	0.5	GW x 100	E	1.8	Leaching (c)	**E**
Chloroform	ND	0.011	10	GW x 100	C	2	Leaching	***	10	GW x 100	***	10	GW x 100	***	2	G	***

Notes:
mg/kg = milligram per kilogram
Reference = Reference for the RRS
ND = Substance not detected
(a) Surface soil is defined under HSRA as 0 to 2 feet below ground surface
(b) Subsurface soil is defined under HSRA as any point above the upper most groundwater zone; used here to mean other than surface soil.
*** Substance concentrations complies with a lower RRS
C = Substance concentration meets the respective RRS
E = Substance concentration exceeds the respective RRS
GW x 100 = HSRA ground water criteria standard times a factor of 100
Appendix I = HSRA Rules Appendix I: Regulated Substances and Soil Concentrations that Trigger Notification
G = Lower value of direct soil contact and non-residential soil-to-ground water leaching values
Leaching = RRS based on soil-to-groundwater transport equation from the Soil Screening Guidance background document (USEPA, 1996).
child, nc = Non-carcinogenic RRS for a child
adult, c = Carcinogenic RRS for an adult
(c) 1.8 mg/kg is the EPD-approved leaching criteria. Soil concentrations exceeding the direct contact value of 1.3 mg/kg are all located beneath the existing building floor slab, so direct contact is not possible.
Bold Substance concentrations exceeds Types 1, 2, 3 and 4 RRS

PREPARED BY: RNQ 2/22/07
CHECKED BY: LMS 2/27/07

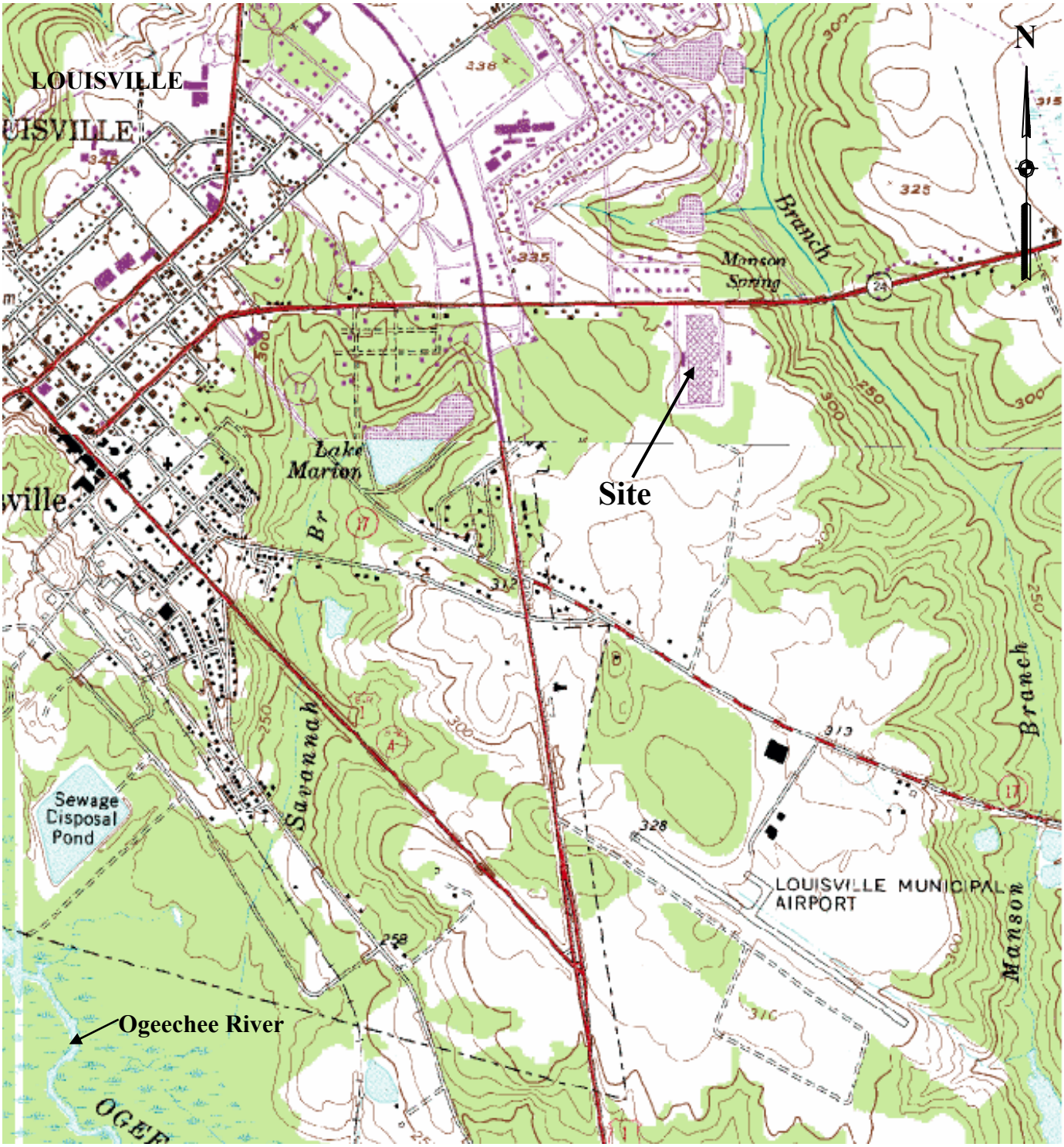
TABLE 6.2: SUMMARY of TRICHLOROETHENE and 1,1,1-TRICHLOROETHANE SOIL-WATER PARTITION (Kd) VALUES

Calculation:	(A)	(B)	(C) = [(A)-(20*(B)]	(D) = [(C)/(B)]
Sample Identification and Sample Depth in feet	**Total Trichloroethene Concentrations (µg/kg)**	**SPLP Trichloroethene Concentrations (µg/L)**	**Trichloroethene Adjusted Total**	**Kd Values Trichloroethene (L/kg)**
Kd-12 (10 ft)	170	6.2	46	7.4
Kd-10 (15 ft)	830	28	270	9.6
Kd-7 (3 ft)	56	ND (<1)	36	36
Kd-4 (11 ft)	240 E	2.5	190	76
Kd-4 (2 ft)	140	ND (<1)	120	120
Kd-5 (3 ft)	200	1.1	178	162
Kd-9 (7 ft)	780	3.6	708	197
Kd-11 (6 ft)	730	3.3	664	201
Kd-10 (3 ft)	1800	7.2	1656	230
Kd-11 (4 ft)	1700	6.6	1568	238
Kd-3 (4 ft)	890	3.2	826	258
Kd-8 (9 ft)	460	ND (<1)	440	440

Calculation:	(A)	(B)	(C) = [(A)-(20*(B)]	(D) = [(C)/(B)]
Sample Identification and Sample Depth in feet	**Total 1,1,1-Trichloroethane Concentrations (µg/kg)**	**SPLP 1,1,1-Trichloroethane Concentrations (µg/L)**	**1,1,1-Trichloroethane Adjusted Total**	**Kd Values 1,1,1-Trichloroethane (L/kg)**
Kd-4 (2 ft)	130	ND (<1)	110	110
Kd-5 (3 ft)	250 E	ND (<1)	230	230
Kd-3 (4 ft)	1100	3.6	1028	286
Kd-4 (11 ft)	410 E	1.3	384	295

Soil-water partition coefficient calculated by MACTEC as Kd = (Total - (20 x SPLP)) / SPLP.
L/kg = liters per kilogram
µg/kg = micrograms per kilograms
ND = Not detected above detection limit shown (1).
The detection limit was used when the SPLP result was non-detect.
E = Result concentration exceeds the calibration ranges

Prepared by: JCB 2/20/07
Checked by: RNQ 2/23/07



Source: USGS 7.5-minute Topographic Maps: Louisville,GA, (1948, Photorevised 1980), Louisville South, GA (1973, Photoinspected 1981), Old Town (1973), Kellys Pond (1950)

0 715

Scale in Feet

Prepared By: RNQ 9/16/03
Checked By: ADA 9/16/03

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3200 Town Point Drive, Suite 100
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SITE LOCATION MAP

Project No. 12000-0-2050 Figure 1.0

J:\Thermo King\TK-AERIAL-SITE\AERIAL-SITE.dwg - Layout1 03/14/2007 4:26pm ralexand

SOURCE: HOFFMAN & COMPANY, INC. AERIAL PHOTOGRAPH FEBRUARY 2002
FOR LAW ENGINEERING & ENVIRONMENTAL SERVICES, INC.

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0 200 400

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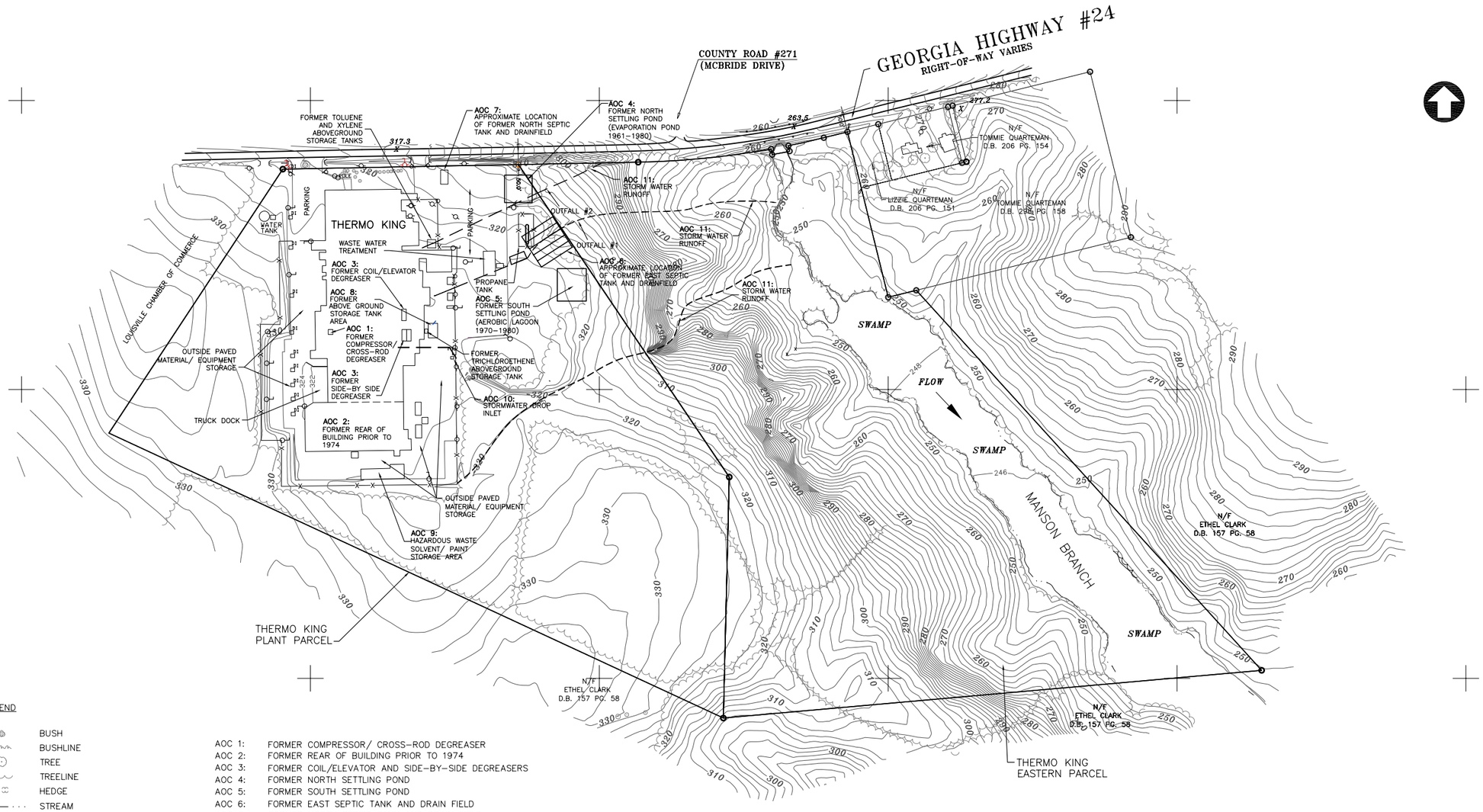
MANUFACTURING BUILDING AND
SURROUNDING AREA

JOB NO. 12000-0-2050 FIGURE 2.1

PREPARED BY/DATE R. ALEXANDER
CHECKED BY/DATE R. QUINN



LEGEND

- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- STREAM
- FENCE
- TOPOGRAPHIC CONTOUR
- DROP INLET
- LIGHT POLE
- PROPERTY BOUNDARY

AOC 1:	FORMER COMPRESSOR/ CROSS-ROD DEGREASER
AOC 2:	FORMER REAR OF BUILDING PRIOR TO 1974
AOC 3:	FORMER COIL/ELEVATOR AND SIDE-BY-SIDE DEGREASERS
AOC 4:	FORMER NORTH SETTLING POND
AOC 5:	FORMER SOUTH SETTLING POND
AOC 6:	FORMER EAST SEPTIC TANK AND DRAIN FIELD
AOC 7:	FORMER NORTH SEPTIC TANK AND DRAIN FIELD
AOC 8:	FORMER ABOVEGROUND STORAGE TANKS AREA FOR DIESEL, ANTIFREEZE, TRICHLOROETHENE, AND FREON
AOC 9:	HAZARDOUS WASTE/SOLVENT/PAINT STORAGE AREA
AOC 10:	STORMWATER DROP INLET
AOC 11:	EAST SIDE DRAIN OUTFALLS NOS. 1 AND 2
AOC	AREA OF CONCERN

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., FEBRUARY 2002 AERIAL PHOTOGRAPH. 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC., MARCH 2003. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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0 200 400

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CHECKED R. QUINN
IN CHARGE D. ALCOTT
DATE 12/10/03

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SITE LAYOUT MAP

FIGURE: 2.2

SCALE: AS SHOWN
CONTRACT: 12000-0-2050
DWG. NO. | REV: 1 | PAGE NO

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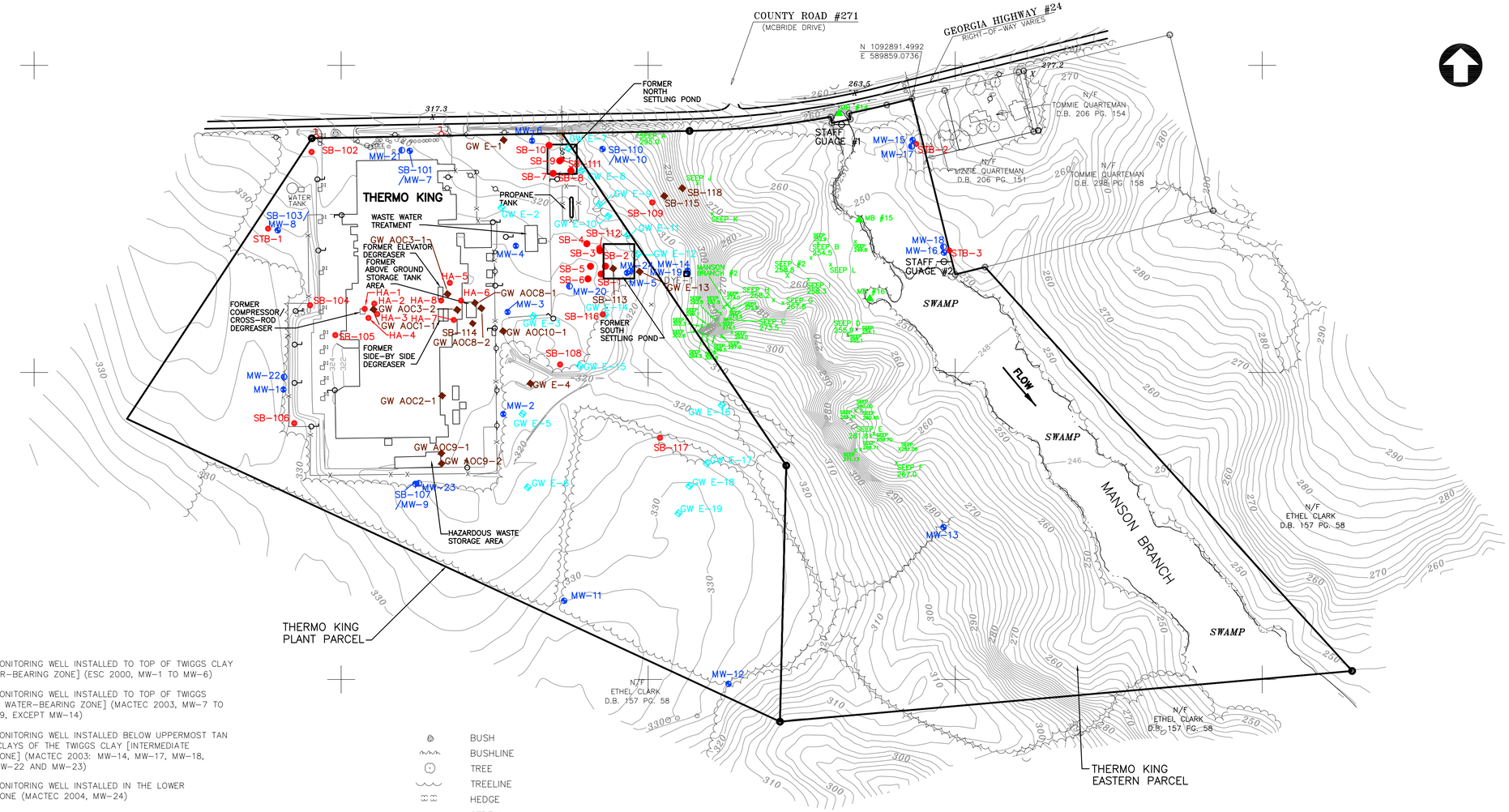

LEGEND

MW-1	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
MW-7	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
MW-14	GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22 AND MW-23)
MW-24	GROUND-WATER MONITORING WELL INSTALLED IN THE LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
GW E-2	DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
GW E-1	SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
SB-7	SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB-1 TO SB-10, SB-101 TO SB-112, SB-116 AND SB-117 AND HA-1 TO HA-8) (SOIL BORINGS FOR SOIL SAMPLING SB-101, SB-103, SB-107, SB-110 WERE COMPLETED AS MONITORING WELLS MW-7, MW-8, MW-9, AND MW-10 RESPECTIVELY) BORINGS STB-1, STB-2 AND STB-3 ARE STRATIGRAPHIC BORINGS
SEEP A 299.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
SEEP 252.9	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
	STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
	DYE INJECTION WELL
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
	FENCE
300	TOPOGRAPHIC CONTOUR
DI	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. IN SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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0 200 400

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DESIGNED M. BARTENFIELD
DRAWN R. ALEXANDER, J. THREADGILL
CHECKED R. QUINN
IN CHARGE D. ALCOTT
DATE 2/09/07

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SITE SAMPLING LOCATIONS MAP

FIGURE 3.0

SCALE: AS SHOWN
CONTRACT: 12000-0-2050
DWG. NO.
REV PAGE NO: 2

J:\Thermo King\JANUARY 2005\SITE SAMPLE LOCATION MAP.dwg — Layout1 03/14/2007 4:52pm rolexand

Kd-4		2'	11'
14DIOXANE	ug/kg	650	ND
TCE	ug/kg	140	240
111TCA	ug/kg	130	410 E
112TCA	ug/kg	6	15
CIS 12DCE	ug/kg	ND	8.1
11 DCE	ug/kg	19	50

Kd-5		3'
14DIOXANE	ug/kg	8600
TCE	ug/kg	200
111TCA	ug/kg	250 E
112TCA	ug/kg	6.4
11 DCE	ug/kg	51

Kd-2		8'
14DIOXANE	ug/kg	270,000
TCE	ug/kg	2600
111TCA	ug/kg	2300
NAPHTHALENE	ug/kg	310

Kd-1		2'	4'
14 DIOXANE	ug/kg	3,600,000	2,800,000

Kd-10		3'	9'	13'	15'	17'
TCE	ug/kg	1800	1800	810 E	830	340 E
111TCA	ug/kg	ND	ND	14	ND	13
CIS 12DCE	ug/kg	380	300	150	ND	41
11DCE	ug/kg	ND	ND	11	ND	6.1
CHLOROFORM	ug/kg	ND	ND	11	ND	ND

Kd-12		9'	10'
TCE	ug/kg	380 E	170
111TCA	ug/kg	6.1	ND
CIS 12DCE	ug/kg	18	7.7

Kd-8		9'
TCE	ug/kg	460

Kd-9		7'	9'	10'
TCE	ug/kg	780	1000	650

Kd-7		3'
TCE	ug/kg	56
CIS 12DCE	ug/kg	8.3

Kd-11		4'	6'
TCE	ug/kg	1700	730

Kd-3		3'	4'
14DIOXANE	ug/kg	290,000	220,000
TCE	ug/kg	280	890
111TCA	ug/kg	320	1100

THERMO KING PLANT BUILDING

WATER TANK

WASTE WATER TREATMENT

PROPANE TANK

FORMER NORTH SETTLING POND

FORMER SOUTH SETTLING POND

FORMER ELEVATOR DEGREASER (INSIDE)

FORMER ABOVEGROUND STORAGE TANK AREA (OUTSIDE)

FORMER COMPRESSOR/ CROSS-ROD DEGREASER (INSIDE)

FORMER SIDE-BY SIDE DEGREASER (INSIDE)

SB-102 MW-21 SB-101/MW-7 SB-110/MW-10 SB-9 SB-111 SB-8 SB-7 GW E-8 GW E-9 GW E-10 GW E-11 GW E-12 GW E-13 GW E-14 GW E-15 SB-103/MW-8 STB-1 GW E-2 MW-4 SB-4 SB-112 SB-3 SB-2 SB-5 SB-6 SB-113 SB-1 MW-24 MW-5 kd-6 NS MW-20 MW-3 GW E-3 SB-116 SB-104 SB-105 SB-114 GW AOC8-2 GW AOC10-1 SB-108 GW E-4 MW-22 GW AOC3-1 HA-5 HA-6 HA-8 GW AOC3-2 HA-7 GW AOC8-1 kd-12 kd-10 kd-9 kd-7 kd-11 kd-8 HA-1 HA-2 HA-3 HA-4 kd-1 kd-2 kd-3 kd-4 kd-5 GW AOC1-1

320 330 324 322

DI

LEGEND

× kd-1	SOIL BORING FOR SOIL SAMPLING FOR SOIL PARTITION COEFFICIENT (kd) STUDY
● HA-1 SB-105	HAND-AUGER BORING OR DIRECT-PUSH BORING FOR SOIL SAMPLE FOR DELINEATION PURPOSES
◆ GW AOC3-1	DIRECT-PUSH BORING FOR SOIL AND GROUNDWATER SAMPLING FOR DELINEATION PURPOSES
● MW-3 ◐ MW-22	GROUND-WATER MONITORING WELL
ug/kg	MICROGRAMS PER KILOGRAMS
IIITCA	I,I,I-TRICHLOROETHANE
TCE	TRICHLOROETHENE
IIDCE	I,I-DICHLOROETHENE
CIS I2DCE	CIS-I,2-DICHLOROETHENE
II2TCA	I,I,2-TRICHLOROETHANE
ND	NOT DETECTED
NS	NOT SAMPLED
E	ESTIMATED RESULT

SCALE IN FEET

0 100 200

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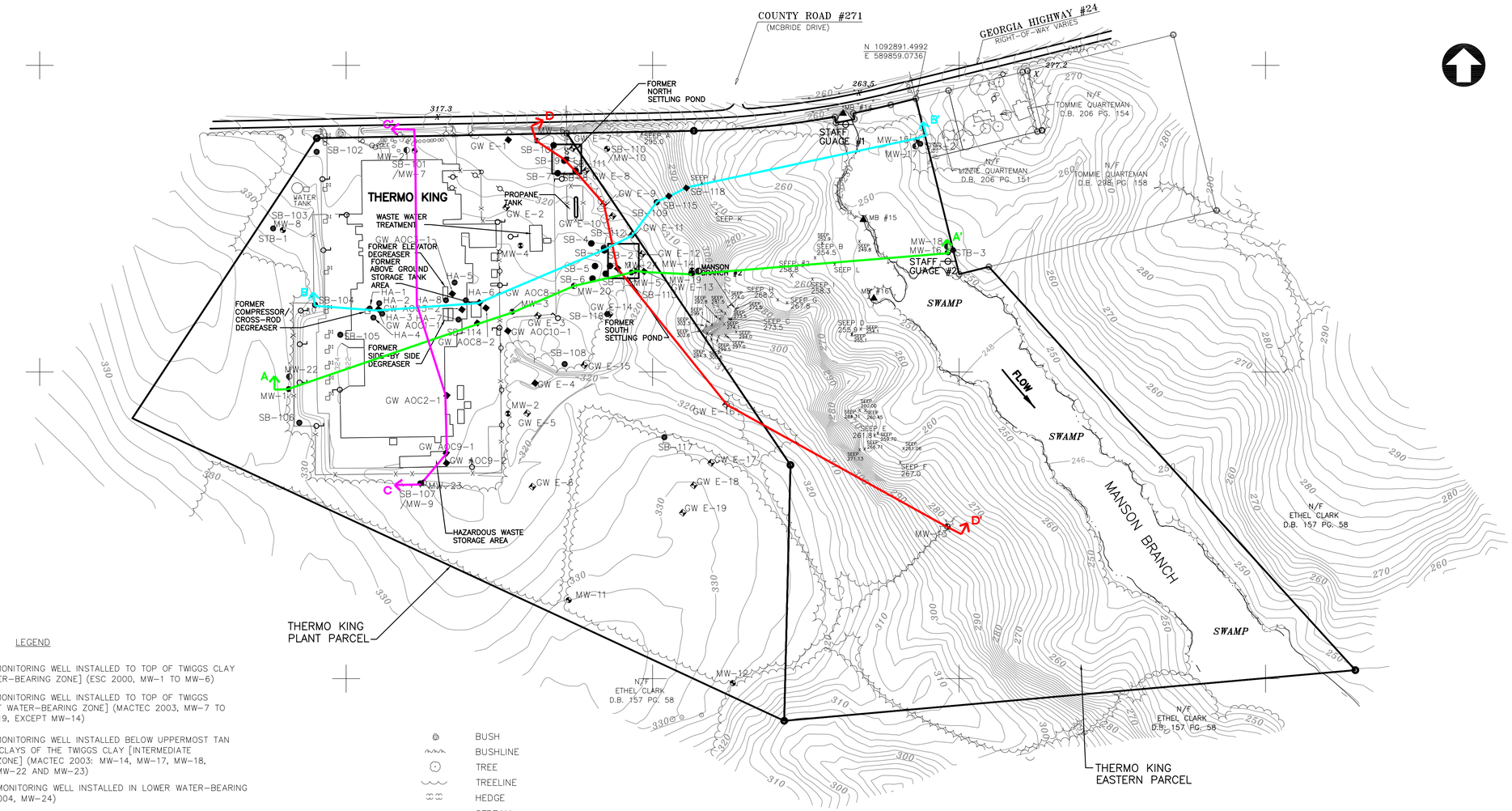
SOIL SAMPLE LOCATIONS
FOR SOIL PARTITION COEFFICIENT
(KD) STUDY

JOB NO. 12000-0-2050 FIGURE 3.1

PREPARED BY/DATE A. CALLAWAY
CHECKED BY/DATE R. QUINN



LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
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MW–24	GROUND–WATER MONITORING WELL INSTALLED IN LOWER WATER–BEARING ZONE (MACTEC 2004, MW–24)
GW E–2	DIRECT–PUSH TECHNOLOGY BORING FOR GROUND–WATER SAMPLING (LAW 2000: GW E–1 TO GW E–19, UPPERMOST WATER–BEARING ZONE)
GW E–1	SOIL BORING FOR SOIL AND GROUND–WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E–1, GW E–4, GW E–13, GW AOC1–1, GW AOC2–1, GW AOC3–1, GW AOC3–2, GW AOC8–1, GW AOC8–2, GW AOC9–1, GW AOC9–2, GW AOC10–1, SB–113, SB–114, SB–115, AND SB–118, UPPERMOST WATER–BEARING ZONE)
SB–7	SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB–1 TO SB–10, SB–101 TO SB–112, SB–116 AND SB–117 AND HA–1 TO HA–8) (SOIL BORINGS FOR SOIL SAMPLING SB–101, SB–103, SB–107, SB–110 WERE COMPLETED AS MONITORING WELLS MW–7, MW–8, MW–9, AND MW–10 RESPECTIVELY) BORINGS STB–1, STB–2 AND STB–3 ARE STRATIGRAPHIC BORINGS
SEEP A 299.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
SEEP 252.9	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
	STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
	FENCE
300	TOPOGRAPHIC CONTOUR
DI	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY
A A'	HYDROGEOLOGIC PROFILE LOCATION

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC: OCTOBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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0 200 400

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DESIGNED C. KRAMBIS
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DATE 2/09/07

THERMO KING CORPORATION
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HYDROGEOLOGIC PROFILE LOCATION MAP

FIGURE 4.0

SCALE: AS SHOWN
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DWG. NO.
REV 2
PAGE NO

J:\Thermo King\JANUARY 2005\HYDROGEOLOGIC PROFILE.dwg — Layout1 03/14/2007 4:56pm rakward

A
WEST

A'
EAST

ELEVATION IN FEET (NAVD)

340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160

FORMER ABOVEGROUND STORAGE TANK

FORMER SOUTH SETTLING POND (OFFSET)

MANUFACTURING BUILDING

(OFFSET) STB-1

MW-1 MW-22 SB-114 MW-3 MW-20 SB-113 MW-5 MW-24 MW-19 MW-14 MW-16 MW-18

SB-114 (0-2) TCE 130 ug/kg

SB-114 (22-24) VOCs ND

SB-113 (0-2) VOCs ND

SB-113 (4-6) TCE 9.4 ug/kg

SB-113 (40-42) VOCs ND

SB-114 (45-48) 111TCA 270 ug/L; 11DCE 72 ug/L; C 12 DCE 27 ug/L; TCE 700 ug/L

SB-114 (62-64) VOCs ND

SB-113 (61.5-63.5) TCE 93 ug/L

MW-5 (49-54) TCE 320 ug/L; 111TCA <42 ug/L; 11DCE <42 ug/L; C 12 DCE <42 ug/L

SEEP C (11/17/04) C 12 DCE <190 ug/L; 11DCE 240 ug/L; 111TCA 380 ug/L; TCE 1600 ug/L

SEEP C (OFFSET)

MANSON BRANCH #2 (OFFSET)

MASON BRANCH #2 (11/17/04) C 12 DCE <190 ug/L; 11DCE 210 ug/L; 320 ug/L; 111TCA 930 ug/L; TCE

MW-19 (56.2-66.2) TCE 14000 ug/L; C 12 DCE 17500 ug/L

SEEP H (OFFSET)

SEEP H (11/17/04) C 12 DCE 27 ug/L; TCE 7.1 ug/L

SEEP 2

SEEP #2 (11/17/04) VOCs ND

SEEP B 11/17/04) 111 TCA 10 ug/L; C 12 DCE 16 ug/L; TCE 41 ug/L

SEEP B

MANSON BRANCH

THERMO KING PROPERTY LINE

MW-7 (68.4-74.4) VOCs ND

SB-114 (66-65) 111TCA 2.7 ug/L; TCE 1.1 ug/L; CHLFM 1.0 ug/L

SB-113 (57-62) CHLFM 1.2 ug/L; TCE 20 ug/L

MW-16 (6.7-11.7) VOCs ND

MW-20 (91.7-106.7) C 12 DCE 32 ug/L

MW-14 (71.2-86.2) C 12 DCE <310 ug/L; TCE 13,900 ug/L

MW-18 (27-42) VOCs ND

MW-24 (136.9-146.7) VOCs ND

MW-22 (98.9-113.9) VOCs ND

REDDISH-BROWN TO ORANGE SILTY CLAYEY FINE TO MEDIUM SAND TO SANDY CLAY

BROWNISH-RED AND ORANGE, SILTY, FINE TO MEDIUM SAND

ORANGE TO WHITE TO YELLOWISH-BROWN MEDIUM SAND

CLAY STONE

UPPERMOST WATER BEARING ZONE

YELLOWISH TO GRAYISH BROWN CLAY

BROWN CLAY

YELLOW SAND

WHITE TO GRAY TO BROWN FINE TO COARSE SAND

PERCHING AND CONFINING LAYER

TAN AND WHITE AND LIGHT GRAY CLAY

BLUE-GRAY CLAY TO SANDY SILTY CLAY

INTERMEDIATE WATER BEARING ZONE

BLUE-GRAY SILTY CLAYEY FINE TO MEDIUM SAND

BLUE-GRAY CLAY

DARK GRAY SILT WITH FOSSILS

DARK GRAY CLAYEY SILT WITH SAND SEAM

TWIGGS CLAY FORMATION MEMBER

BLUE-GRAY SANDY SILTY CLAY

DARK GRAY SILTY CLAY WITH FOSSILS

DARK GRAY CLAYEY SILT WITH FOSSILS

GREEN TO DARK GRAY SILT WITH CLAY WITH FOSSILS AND SOME SAND

DARK GRAY MICRITIC LIMESTONE

DARK GREENISH-GRAY SILTY CLAY WITH SAND AND FOSSILS

GRAY LIMESTONE

CLAYEY SANDY SILT WITH FOSSILS AND THIN LIMESTONE LENSES

SANDY CLAYEY SILT WITH FOSSILS

GRAY CLAYEY SILT WITH LIMESTONE FRAGMENTS

GREENISH-GRAY SILTY CLAY

DARK GRAY SAND WITH FOSSILS

GREENISH GRAY VERY FINE SANDY SILT

GREENISH-GRAY CLAYEY SILTY FINE TO MEDIUM SAND

GREENISH-GRAY FINE SANDY SILTY CLAY WITH SOME FOSSILS

GRAY LIMESTONE

DARK GREENISH-GRAY CLAYEY SILTY FINE TO COARSE SAND

GREENISH-GRAY FINE SANDY SILT

LOWER WATER-BEARING ZONE

DARK BROWNISH-GRAY SILTY FINE SAND (ALLUVIAL DEPOSITS)

GRAY-BROWN TO BLUE-GREEN SILTY SANDY CLAY TO CLAYEY FINE SAND TO BLUE-GRAY SAND

BLUE-GRAY TO GREENISH- GRAY SANDY SILTY CLAY

BLUE-GRAY TO GREENISH-GRAY SILTY TO CLAYEY FINE TO VERY COARSE SAND WITH SOME SHELL FRAGMENTS

BLUE-GRAY SANDY SILTY CLAY

GREENISH-GRAY CLAYEY SILT TO SILTY CLAY WITH SOME FOSSILS

B.T. 78'
B.T. 78.5'
B.T. 63.5'
B.T. 58'
B.T47.0'
B.T. 78.5'
B.T. 12.0' REFUSAL
B.T. 116'
B.T. 107.0'
B.T. 88.0
B.T. 48.0' REFUSAL
B.T. 177'
B.T. 147.0'

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 12, 2004
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- 100 / 5 INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND NOT DETECTED
- TCE TRICHLOROETHENE
- 111 TCA 111-TRICHLOROETHANE
- 11 DCE 11-DICHLOROETHENE
- C 12 DCE CIS-12-DICHLOROETHENE
- CHLFM CHLOROFORM
- TCE 130 ug/kg (0-2) CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN IN FEET
- ug/kg= MICROGRAMS PER KILOGRAM
- ug/L= MICROGRAMS PER LITER
- NAVD NORTH AMERICAN VERTICAL DATUM 1988
- DIRECTION OF GROUNDWATER FLOW
- UPPERMOST WATER-BEARING ZONE
- INTERMEDIATE WATER-BEARING ZONE

SCALE IN FEET
10
0 200

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REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED C. KRAMBIS
DRAWN R. ALEXANDER
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DATE 2/09/07

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HYDROGEOLOGIC PROFILE A–A'

FIGURE 4.1

SCALE AS SHOWN
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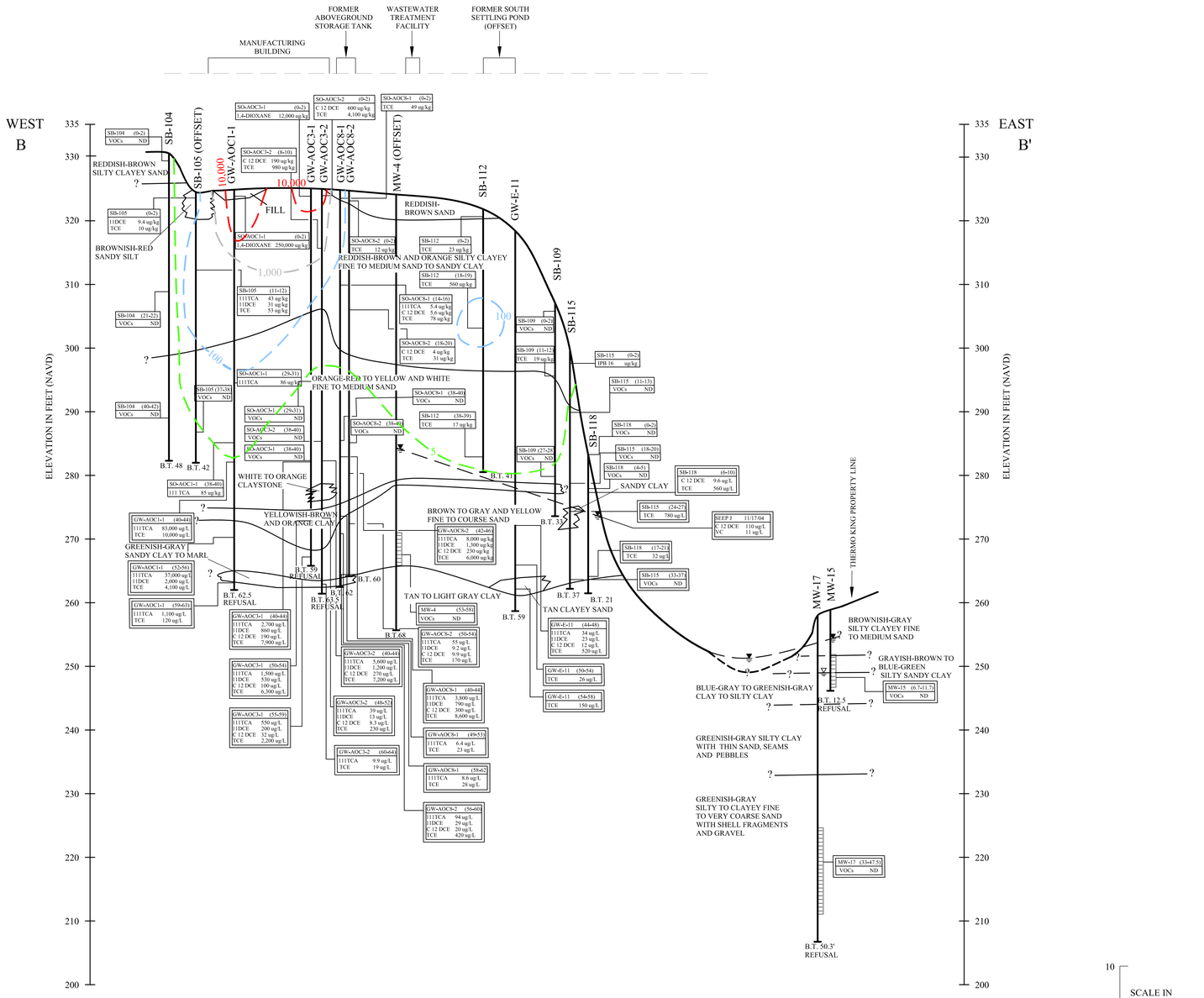

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 12, 2004
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- 10,000 / 1000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- IPB — ISOPROPYLBENZENE
- VC — VINYL CHLORIDE
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN IN FEET
- ug/kg= MICROGRAMS PER KILOGRAMS
- ug/L= MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988

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HYDROGEOLOGIC PROFILE B–B'

FIGURE 4.2

SCALE AS SHOWN
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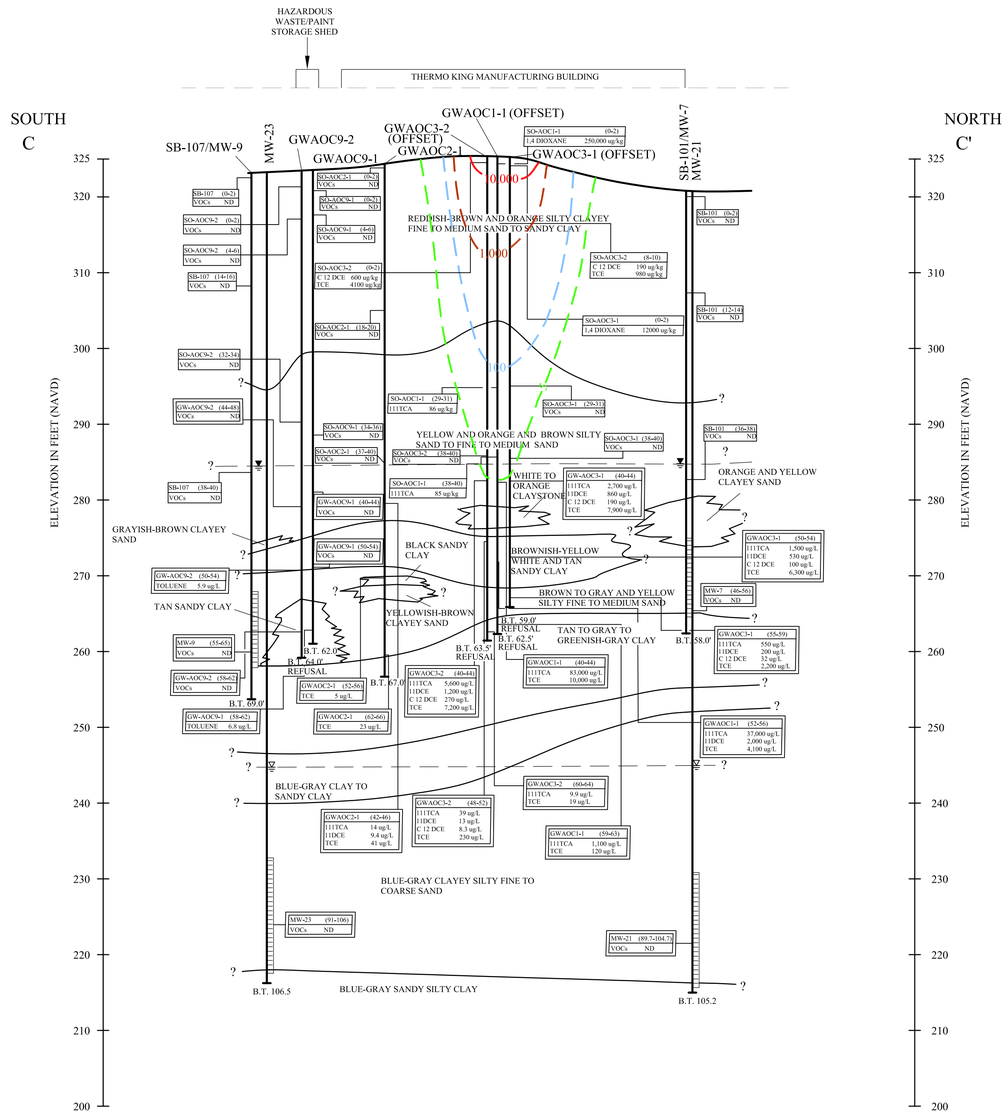

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 12, 2004
- 10,000 / 1,000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN
- ug/kg= — MICROGRAMS PER KILLOGRAMS
- ug/L= — MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988

SCALE IN FEET
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200

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HYDROGEOLOGIC PROFILE C–C'

FIGURE 4.3

SCALE AS SHOWN
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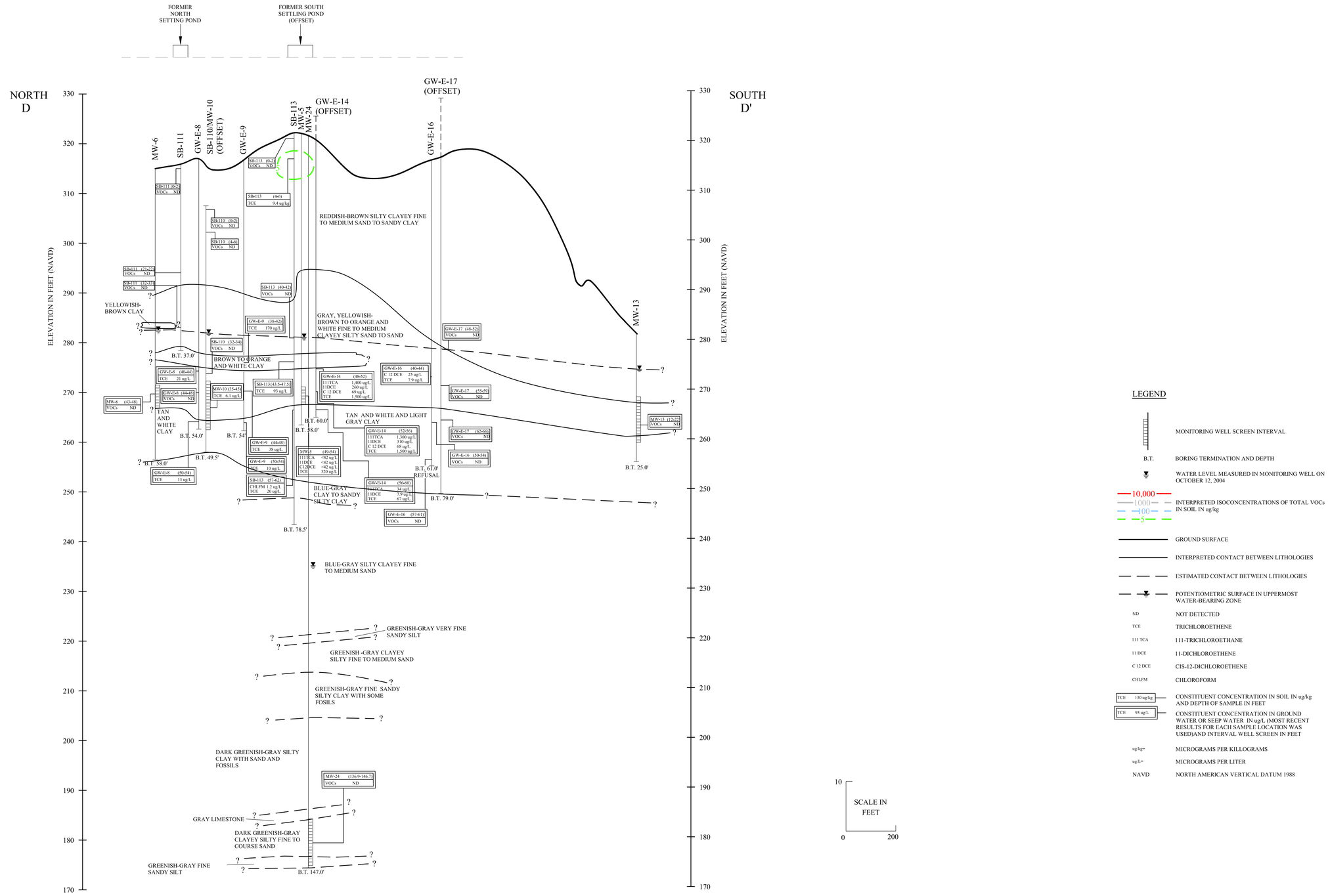

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 12, 2004
- 10,000 / 1000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- GROUND SURFACE
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- CHLFM — CHLOROFORM
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED)AND INTERVAL WELL SCREEN IN FEET
- ug/kg= — MICROGRAMS PER KILLOGRAMS
- ug/L= — MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988

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HYDROGEOLOGIC PROFILE D–D'

FIGURE 4.4

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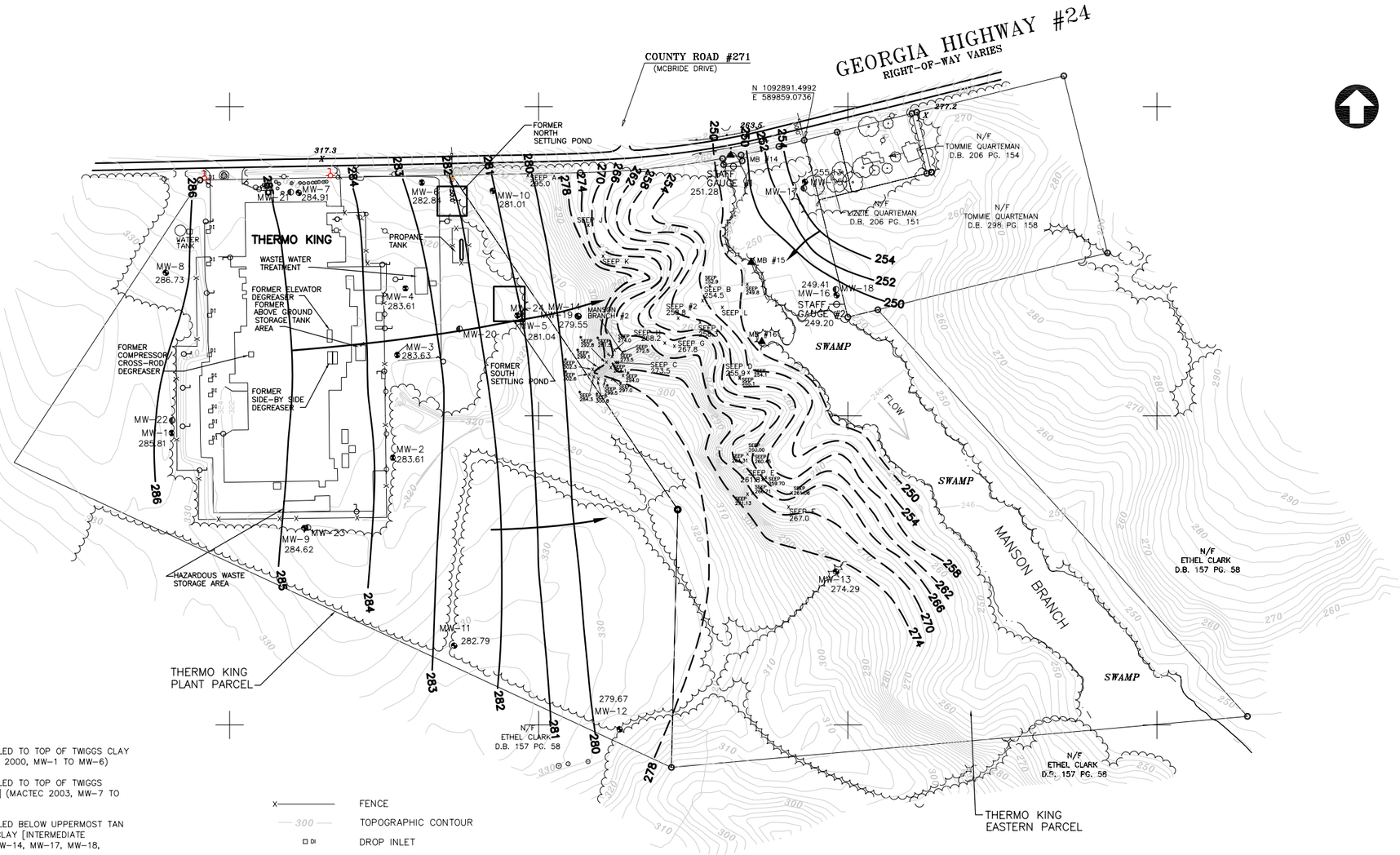

LEGEND

MW-1	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
MW-7	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
MW-14	GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22 AND MW-23)
MW-24	GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER BEARING ZONE.
SEEP A 299.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through Manson Branch #2, and Seep #2)
SEEP 252.9	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
	STAFF GAUGE FOR MEASURING SURFACE WATER ELEVATION
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
x	FENCE
300	TOPOGRAPHIC CONTOUR
	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY
286.90	GROUND-WATER ELEVATION IN FEET, NAVD 1988 (OCTOBER 12, 2004)
284	POTENTIOMETRIC SURFACE CONTOUR IN FEET, NAVD 1988 IN UPPERMOST WATER-BEARING ZONE
	INTERPRETED DIRECTION OF GROUND-WATER FLOW IN UPPERMOST WATER-BEARING ZONE
X	SEEPS NOT USED IN CONTORING

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH. AND GROUND SURVEYING. 2000 CSR SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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POTENTIOMETRIC SURFACE MAP FOR UPPERMOST WATER-BEARING ZONE OCTOBER 2004

FIGURE: 4.5

SCALE: AS SHOWN
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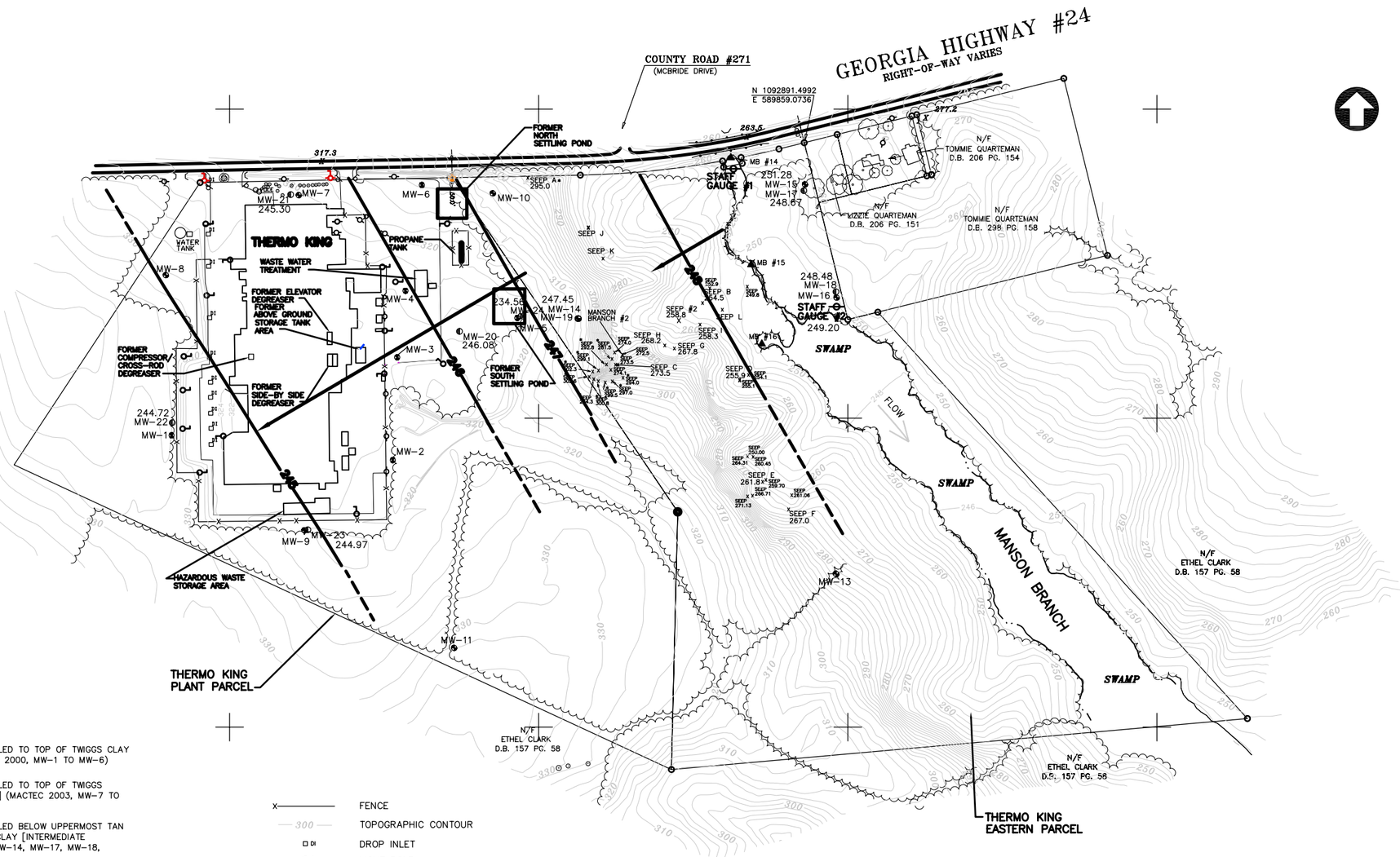

LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
MW–14	GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22 AND MW–23)
MW–24	GROUND–WATER MONITORING WELL INSTALLED IN LOWER WATER BEARING ZONE.
SEEP A 295.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through J, Manson Branch #2, and Seep #2)
SEEP 274.0	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
	STAFF GAUGE FOR MEASURING SURFACE WATER ELEVATION
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
x	FENCE
300	TOPOGRAPHIC CONTOUR
	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY
245.96	GROUND–WATER ELEVATION IN FEET, NAVD 1988 (OCTOBER 12, 2004)
284	POTENTIOMETRIC SURFACE CONTOUR IN FEET, NAVD 1988 IN INTERMEDIATE WATER–BEARING ZONE
	INTERPRETED DIRECTION OF GROUND–WATER FLOW IN INTERMEDIATE WATER–BEARING ZONE
x	SEEPS NOT USED IN CONTORING

NOTE: GROUND–WATER ELEVATION FOR MW–24 MEASURED ON OCTOBER 28, 2004 AND WAS NOT USED IN CONTOURING.

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH. AND GROUND SURVEYING. 2000 CSR SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. SEPTEMBER 2003. DECEMBER 2004 LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE WATER–BEARING ZONE OCTOBER 2004

FIGURE: 4.6

SCALE: AS SHOWN
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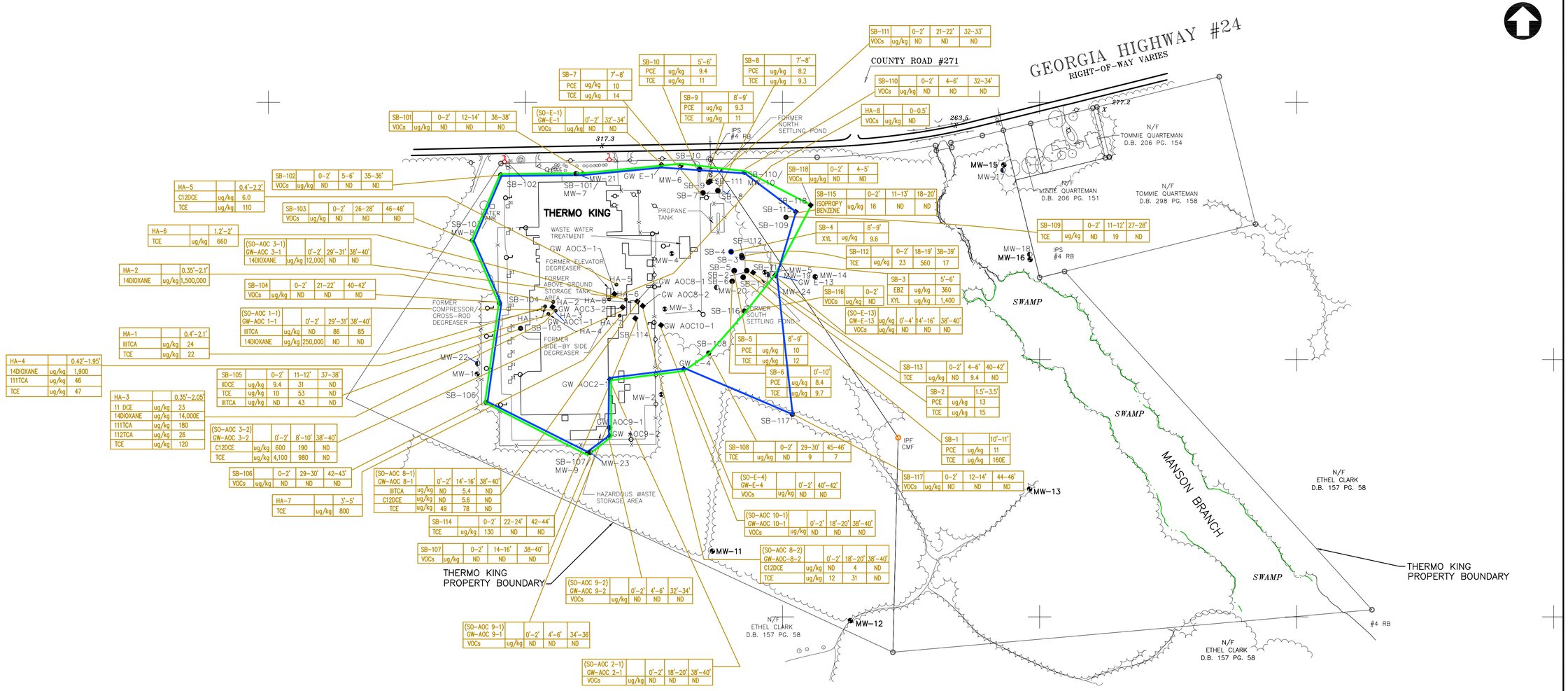

LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
MW–14	GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22 AND MW–23)
MW–24	GROUND–WATER MONITORING WELL INSTALLED IN THE LOWER WATER–BEARING ZONE (MACTEC 2004, MW–24)
GW E–1	SOIL BORING FOR SOIL AND GROUND–WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E–1, GW E–4, GW E–13, GW AOC1–1, GW AOC2–1, GW AOC3–1, GW AOC3–2, GW AOC8–1, GW AOC8–2, GW AOC9–1, GW AOC9–2, GW AOC10–1, SB–113, SB–114, SB–115, AND SB–118, [UPPERMOST WATER–BEARING ZONE]
SB–7	SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003 AND 2005 SB–1 TO SB–10, SB–101 TO SB–112, SB–116 AND SB–117 AND HA–1 TO HA–8, Kd–1 TO Kd–12) (Soil borings for soil sampling SB–101, SB–103, SB–107, and SB–110 were completed as monitoring wells MW–7, MW–8, MW–9, and MW–10)

NOTE: SEE FIGURE 3.1 FOR Kd BORING LOCATIONS

VOCs	VOLATILE ORGANIC COMPOUNDS
ug/kg	MICROGRAMS PER KILOGRAMS
IIITCA	I,I,I–TRICHLOROETHANE
TCE	TRICHLOROETHENE
IIDCE	I,I–DICHLOROETHENE
CI2DCE	CIS–I,2–DICHLOROETHENE
PCE	TETRACHLOROETHENE
XYL	XYLENES
EBZ	ETHYLBENZENE
ND	NOT DETECTED
NS	NOT SAMPLED
II2TCA	I,I,2–TRICHLOROETHANE
0'–2'	SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
110	CONSTITUENT CONCENTRATION
E	ESTIMATED CONCENTRATION; RESULT EXCEEDS THE CALIBRATION RANGE

BUSH
BUSHLINE
TREE
TREELINE
HEDGE
STREAM
FENCE
DROP INLET
LIGHT POLE
PROPERTY BOUNDARY
EXTENT OF VOCs IN SURFACE SOILS (0–2 FEET)
EXTENT OF VOCs IN SUBSURFACE SOILS (>2 FEET)

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING INC., LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN SOIL

FIGURE 4.7

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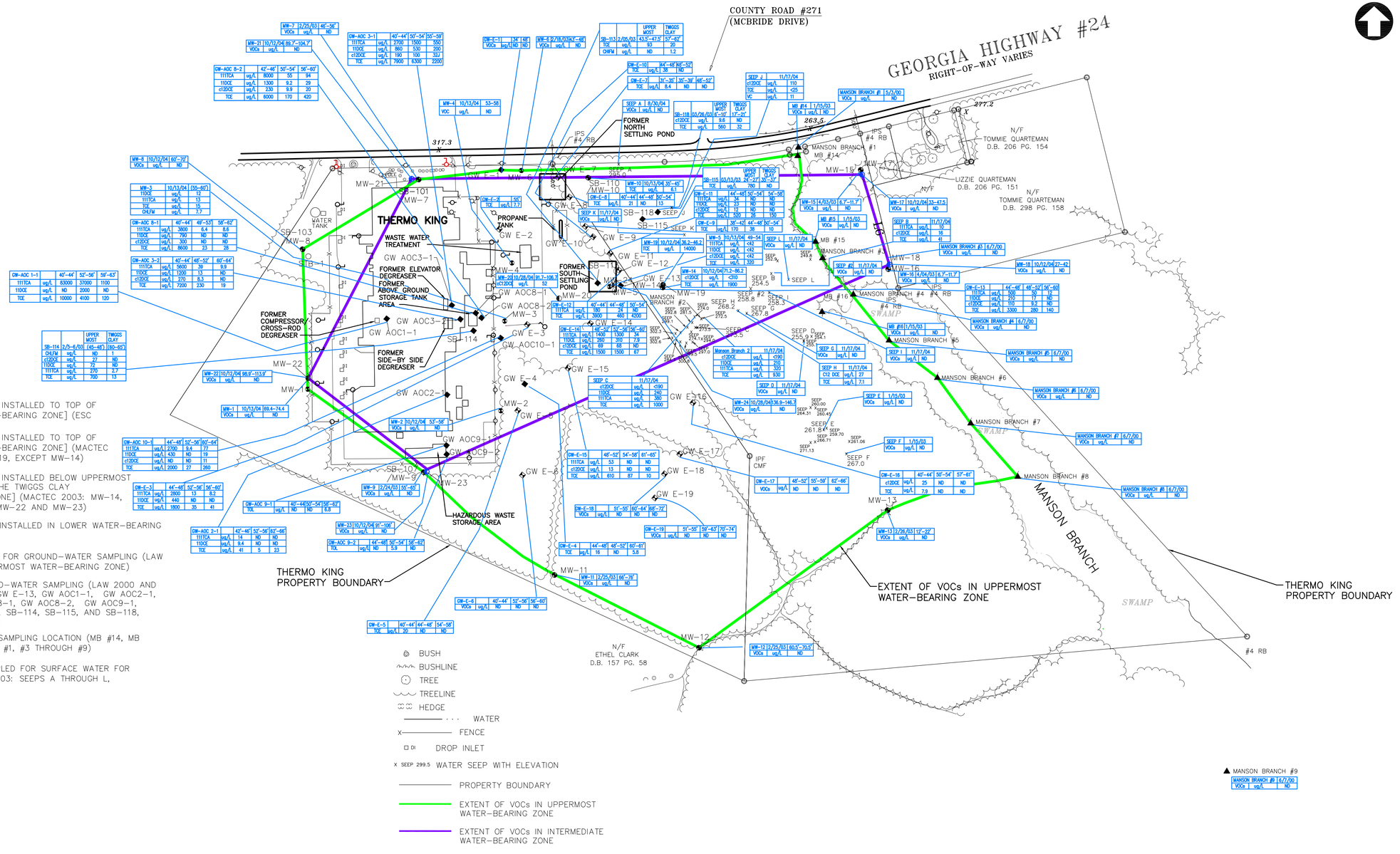

LEGEND

- MW-1 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
- MW-7 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
- MW-14 — GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22 AND MW-23)
- MW-24 — GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004: MW-24)
- GW-E-2 — DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
- GW-E-1 — SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16, MANSON BRANCH #1, #3 THROUGH #9)
- X SEEP A 299.0 — WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: SEEPS A THROUGH L, MANSON BRANCH #2, SEEP #2)

ND	NOT DETECTED
VOC	VOLATILE ORGANIC COMPOUNDS
TCE	TRICHLOROETHENE
111TCA	I,I,I-TRICHLOROETHANE
IIDCE	I,I-DICHLOROETHENE
c12DCE	CIS-12-DICHLOROETHENE
t12DCE	TRANS-1,2-DICHLOROETHENE
TOL	TOLUENE
CHLFM	CHLOROFORM
VC	VINYL CHLORIDE
ug/L	MICROGRAMS PER LITER
40'-44'	SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
27	CONSTITUENT CONCENTRATION

BUSH
BUSHLINE
TREE
TREELINE
HEDGE
WATER
FENCE
DI DROP INLET
X SEEP 299.5 WATER SEEP WITH ELEVATION
PROPERTY BOUNDARY
EXTENT OF VOCs IN UPPERMOST WATER-BEARING ZONE
EXTENT OF VOCs IN INTERMEDIATE WATER-BEARING ZONE

NOTE: MOST CURRENT ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000, 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN GROUND WATER

FIGURE 4.8

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LEGEND

MW-1	GROUND-WATER MONITORING WELL INSTALLED IN UPPERMOST WATER-BEARING ZONE (ESC 2000, MW-1 TO MW-6)
MW-7	GROUND-WATER MONITORING WELL INSTALLED IN UPPERMOST WATER-BEARING ZONE (MACTEC 2003, MW-7 TO MW-13 AND MW-19) (MW-15 AND MW-16 INSTALLED IN ALLUVIUM DEPOSITS ON EAST SIDE OF MANSON BRANCH)
MW-14	GROUND-WATER MONITORING WELL INSTALLED IN INTERMEDIATE WATER-BEARING ZONE (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22 AND MW-23)
MW-24	GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
GW-E-2	DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
GW-E-1	SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16 MANSON BRANCH #1, #3 THROUGH #9)
X SEEP A 299.0	WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC NOV. 2004: SEEPS A THROUGH L, MANSON BRANCH #2, SEEP #2)
69	TRICHLOROETHENE CONCENTRATION IN ug/L IN GROUND WATER
—100—	ISO-CONCENTRATION CONTOUR FOR TRICHLOROETHENE CONCENTRATION IN ug/L
ND	NOT DETECTED
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	WATER
	FENCE
DI	DROP INLET
SEEP 299.5	WATER SEEP WITH ELEVATION
	PROPERTY BOUNDARY
	HORIZONTAL EXTENT OF TRICHLOROETHENE IN UPPERMOST WATER-BEARING ZONE (ND LINE)
*	CONSTITUENT CONCENTRATION IN GROUND WATER IN THE INTERMEDIATE AND LOWER WATER-BEARING ZONES NOT USED IN CONTOURING

NOTE: MOST CURRENT GROUND-WATER ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

J:\Thermo King\JANUARY 2005\TRICHLOROETHENE IN GW-UPPER-11805.dwg - Layout1 03/14/2007 4:44pm ralexand

REV	DATE	BY	SUB	APP	DESCRIPTION	REV	DATE	BY	SUB	APP	DESCRIPTION

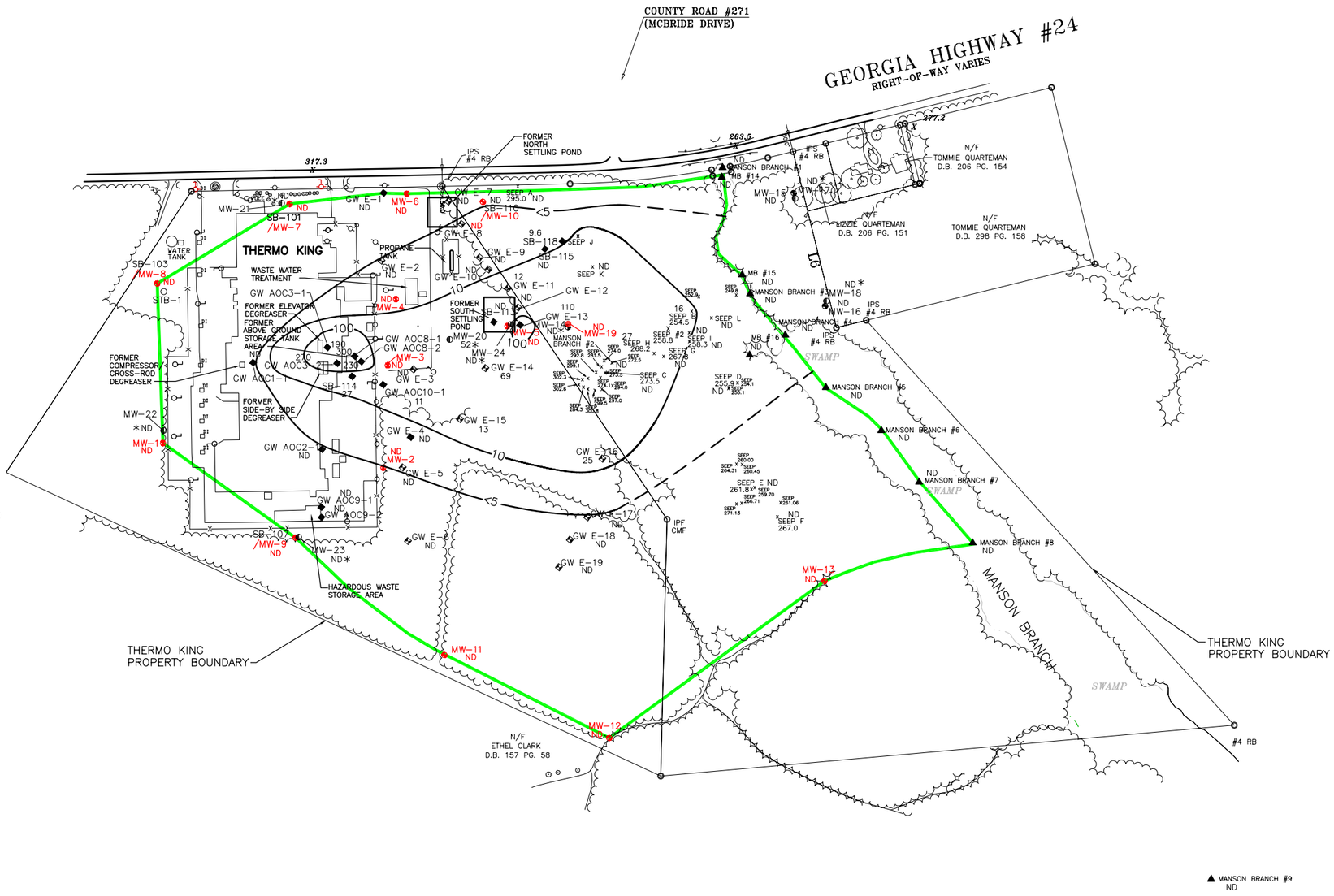
DESIGNED R. QUINN
DRAWN T. GLADSTONE
CHECKED J. HARTNESS
IN CHARGE D. ALCOTT
DATE 2/12/2007

THERMO KING CORPORATION
LOUISVILLE, GEORGIA

MACTEC Engineering and Consulting, Inc.
3200 TOWN POINT DRIVE
KENNESAW, GEORGIA 30144 (770) 421-3400

ISO-CONCENTRATION MAP OF TRICHLOROETHENE IN GROUND WATER IN THE UPPERMOST WATER-BEARING ZONE

SCALE: AS SHOWN
CONTRACT: 12000-0-2050
DWG. NO.: 4.9
REV:
PAGE NO:



LEGEND

MW-1	GROUND-WATER MONITORING WELL INSTALLED IN UPPERMOST WATER-BEARING ZONE (ESC 2000, MW-1 TO MW-6)
MW-7	GROUND-WATER MONITORING WELL INSTALLED IN UPPERMOST WATER-BEARING ZONE (MACTEC 2003, MW-7 TO MW-13 AND MW-19) (MW-15 AND MW-16 INSTALLED IN ALLUVIUM DEPOSITS ON EAST SIDE OF MANSON BRANCH)
MW-14	GROUND-WATER MONITORING WELL INSTALLED IN INTERMEDIATE WATER-BEARING ZONE (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22 AND MW-23)
MW-24	GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
GW-E-2	DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
GW-E-1	SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16) (MANSON BRANCH #1, #3 THROUGH #9)
X SEEP A 299.0	WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC NOV. 2004: SEEPS A THROUGH J, MANSON BRANCH #2, SEEP #2)
27	CIS-1,2-DICHLOROETHENE CONCENTRATION IN ug/L IN GROUND WATER
100	ISO CONCENTRATION CONTOUR FOR CIS-1,2-DICHLOROETHENE CONCENTRATION IN ug/L
ND	NOT DETECTED
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	WATER
	HORIZONTAL EXTENT OF CIS-1,2-DICHLOROETHENE IN UPPERMOST WATER-BEARING ZONE (ND LINE)
	FENCE
DI	DROP INLET
SEEP 299.5	WATER SEEP WITH ELEVATION
	PROPERTY BOUNDARY
*	CONSTITUENT CONCENTRATION IN GROUND WATER IN THE INTERMEDIATE AND LOWER WATER-BEARING ZONES NOT USED IN CONTOURING

NOTE: MOST CURRENT GROUND-WATER ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000, 2003 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED R. QUINN
DRAWN T. GLADSTONE
CHECKED J. HARTNESS
IN CHARGE D. ALCOTT
DATE 2/12/2007

THERMO KING CORPORATION
LOUISVILLE, GEORGIA

MACTEC Engineering and Consulting, Inc.
3200 TOWN POINT DRIVE
KENNESAW, GEORGIA 30144 (770) 421-3400

ISO-CONCENTRATION MAP OF CIS-1,2-DICHLOROETHENE IN GROUND WATER IN THE UPPERMOST WATER-BEARING ZONE

SCALE: AS SHOWN
CONTRACT: 12000-0-2050
DWG. NO.: 4.10
REV
PAGE NO

J:\Thermo King\JANUARY 2005\CIS-1-2 DICHLOROETHENE IN_GROUND WATER.dwg - Layout1 03/14/2007 4:47pm rolexand

WEST

EAST

ELEVATION IN FEET (NAVD)

340
330
320
310
300
290
280
270
260
250
240
230
220
210
200
190
180
170
160

BUILDING DEGREASERS

AST

FORMER SOUTH SETTLING POND

CLAYEY SAND TO SANDY CLAY

FINE TO MEDIUM SAND

UPPERMOST WATER-BEARING ZONE

MEDIUM SAND

CLAY

FINE TO COARSE SAND

MANSON BRANCH

SILTY FINE SAND (ALLUVIAL DEPOSITS)

CLAY (UNSATURATED ZONE)

PERCHING AND CONFINING LAYER

CLAY TO SANDY SILTY CLAY

INTERMEDIATE WATER-BEARING ZONE

CLAYEY FINE TO MEDIUM SAND

SANDY CLAY TO CLAYEY SAND

ALTERNATING STRATA OF SILT AND CLAY WITH THIN LIMESTONE LENSES (SEE TEST BORING RECORD FOR STB-1 FOR DESCRIPTION OF LITHOLOGIES AND STRATIGRAPHY)

LOWER WATER-BEARING ZONE

CLAYEY SAND TO SILTY SAND

LEGEND

▼	WATER LEVEL IN UPPERMOST WATER-BEARING ZONE
▼	WATER LEVEL IN INTERMEDIATE WATER-BEARING ZONE
▼	WATER LEVEL IN LOWER WATER-BEARING ZONE
AST	FORMER ABOVEGROUND STORAGE TANK AREA
←	INTERPRETED GROUNDWATER FLOW DIRECTION
	VOCs
	UPPERMOST PERCHED WATER-BEARING ZONE
	INTERMEDIATE WATER-BEARING ZONE
	LOWER WATER-BEARING ZONE
NAVD	NORTH AMERICAN VERTICAL DATUM, 1988

20
SCALE IN FEET
0 400

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REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED D. ALCOTT
DRAWN R. ALEXANDER
CHECKED R. QUINN
IN CHARGE D. ALCOTT
DATE 2/27/06

THERMO KING CORPORATION
LOUISVILLE, GEORGIA

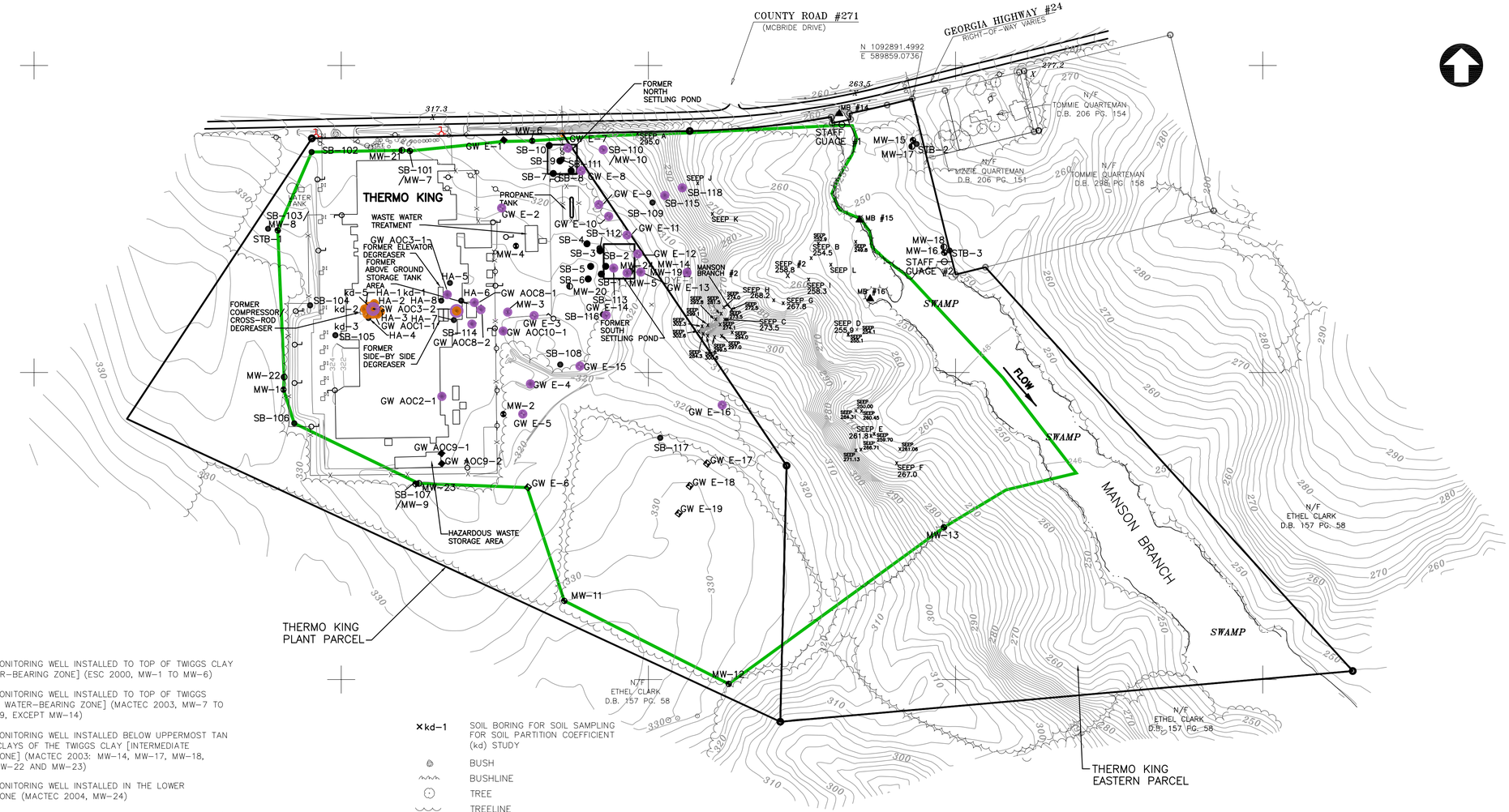
MACTEC Engineering and Consulting, Inc.
3200 TOWN POINT DRIVE, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

SCHEMATIC INTERPRETATION OF CONTAMINANT MIGRATION

FIGURE 4.11

SCALE AS SHOWN
CONTRACT 12000-0-2050
DWG. NO. REV PAGE NO

J:\Thermo King\JANUARY 2005\CROSS SECTION.dwg - Layout1 03/14/2007 4:49pm rotexond



LEGEND

- MW–1 — GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
- MW–7 — GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
- MW–14 — GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22 AND MW–23)
- MW–24 — GROUND–WATER MONITORING WELL INSTALLED IN THE LOWER WATER–BEARING ZONE (MACTEC 2004, MW–24)
- GW E–2 — DIRECT–PUSH TECHNOLOGY BORING FOR GROUND–WATER SAMPLING (LAW 2000: GW E–1 TO GW E–19, UPPERMOST WATER–BEARING ZONE)
- GW E–1 — SOIL BORING FOR SOIL AND GROUND–WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E–1, GW E–4, GW E–13, GW AOC1–1, GW AOC2–1, GW AOC3–1, GW AOC3–2, GW AOC8–1, GW AOC8–2, GW AOC9–1, GW AOC9–2, GW AOC10–1, SB–113, SB–114, SB–115, AND SB–118, UPPERMOST WATER–BEARING ZONE)
- SB–7 — SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB–1 TO SB–10, SB–101 TO SB–112, SB–116 AND SB–117 AND HA–1 TO HA–8) (SOIL BORINGS FOR SOIL SAMPLING SB–101, SB–103, SB–107, SB–110 WERE COMPLETED AS MONITORING WELLS MW–7, MW–8, MW–9, AND MW–10 RESPECTIVELY) BORINGS STB–1, STB–2 AND STB–3 ARE STRATIGRAPHIC BORINGS
- SEEP A 299.0 — WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
- SEEP 252.9 — WATER SEEP WITH ELEVATION
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
- STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
- DYE INJECTION WELL
- kd–1 — SOIL BORING FOR SOIL SAMPLING FOR SOIL PARTITION COEFFICIENT (kd) STUDY
- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- STREAM
- FENCE
- 300 — TOPOGRAPHIC CONTOUR
- DI — DROP INLET
- LIGHT POLE
- PROPERTY BOUNDARY
- CONSTITUENT CONCENTRATIONS IN SOIL DO NOT MEET TYPES 1 OR 2 OR 3 OR 4 RISK REDUCTION STANDARDS
- CONSTITUENT CONCENTRATIONS IN GROUND WATER DO NOT MEET TYPES 1/3 OR 2 OR 4 RISK REDUCTION STANDARDS (MOST RECENT GROUND–WATER ANALYTICAL RESULTS PER LOCATION USED)
- EXTENT OF HSRA DEFINED SITE

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. IN SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

SCALE IN FEET
0 200 400

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REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED M. BARTENFIELD
DRAWN J. HARTNESS
CHECKED R. QUINN
IN CHARGE D. ALCOTT
DATE 3/01/07

THERMO KING CORPORATION
LOUISVILLE, GEORGIA

MACTEC Engineering and Consulting, Inc.
3200 TOWN POINT DRIVE, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421–3400

RISK REDUCTION STANDARDS COMPLIANCE MAP

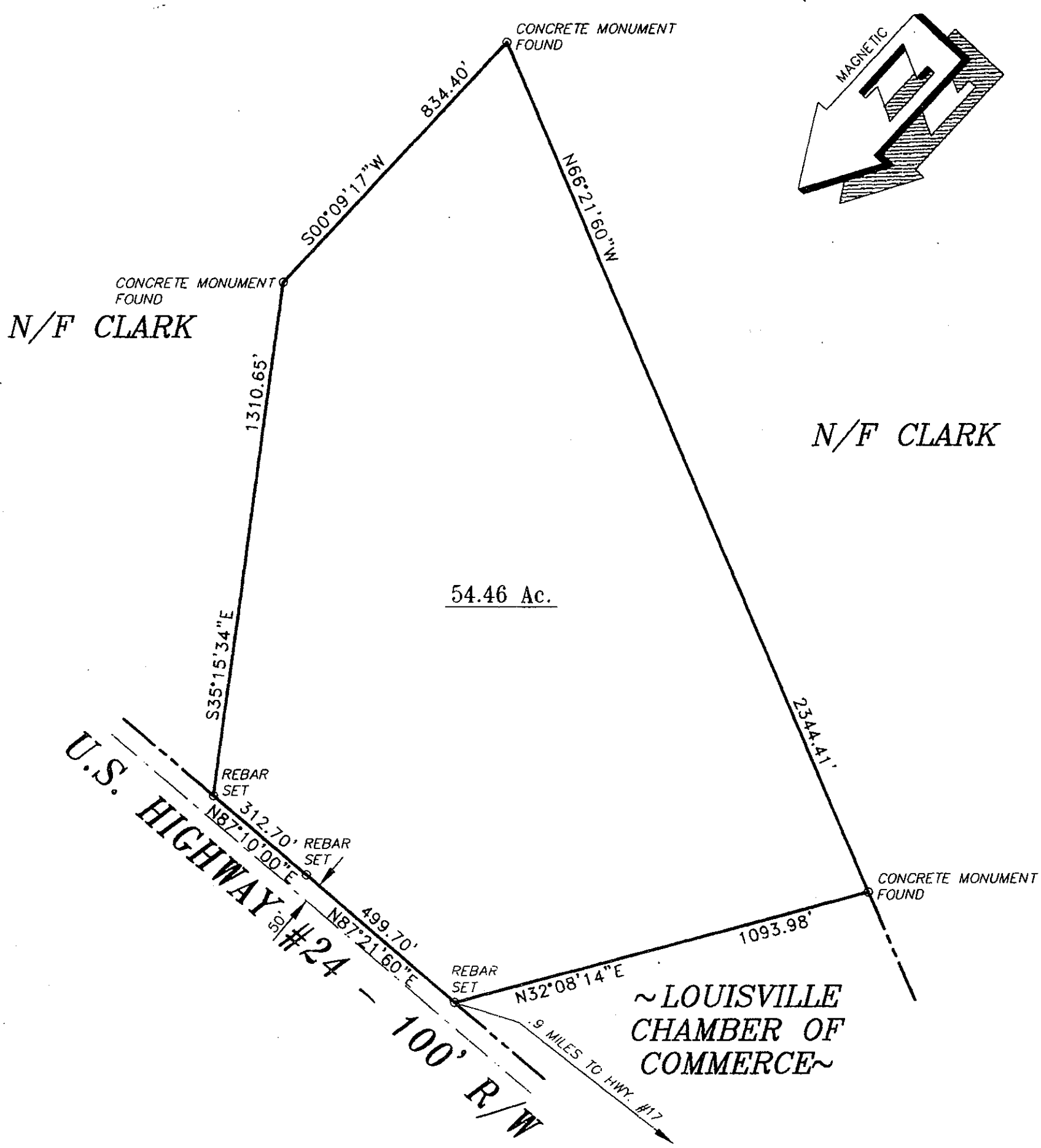
FIGURE 6.0

SCALE: AS SHOWN
CONTRACT: 12000–0–2050
DWG. NO.
REV 0
PAGE NO

J:\Thermo King\JANUARY 2005\RISK REDUCTION STANDARD.dwg – Layout1 03/14/2007 6:02pm rdelvand

APPENDIX A

PLAT OF PROPERTY



PLAT FOR

THERMO KING FACILITY

308th. G.M.D.

JEFFERSON COUNTY, GEORGIA

SCALE: 1"=300' JULY 26, 2000

300' 150' 0 300' 600'

SCALE IN FEET

TOPCON GTS-3
MAP CLOSURE-1/1,013,138'
OPEN TRAVERSE

THIS PLAT IS SUBJECT TO ALL EASEMENTS, RIGHTS-OF-WAY AND PROTECTIVE COVENANTS OF RECORD.

RECORDING COPY

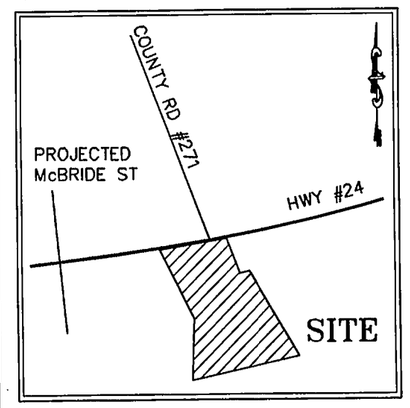
GEORGIA REGISTERED No. 1753 LAND SURVEYOR JOHN A. McGILL 7/27/07

JOHN A. McGILL, R.L.S. #1753
McGILL & ASSOCIATES LAND SURVEYORS
934 SHIELDS POND ROAD
THOMSON, GEORGIA 30824
(706) 595-5612

G.I.D. 00123

AREA

2,439,360 sq.ft.
56.000 acres



VICINITY MAP
N.T.S.

GEORGIA HIGHWAY #24

RIGHT-OF-WAY VARIES

CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD BRG.	CHORD DIST.
C1	462.94	2914.77	N84°19'43"E	462.45
C2	125.48	2914.77	N77°20'43"E	125.47

P.O.B.
N 1092778.4852
E 588719.7566
(NAD 83/94) GA EAST

COUNTY ROAD #271

APPROXIMATE 1.0 MILES TO HWY. #17

N 1092891.4992
E 589859.0736

7'x6' BOX CULVERT

R/W PER REF. #1

R/W PER REF. #2

IPS #4 RB

L1 414.95' N88°52'43"E
C1 462.94' R=2914.77' N84°19'43"E
L2 20.00' S10°13'17"E
L3 61.46' N79°10'43"E
C2 125.48' R=2914.77' N77°20'43"E
L4 20.00' N11°25'17"W
L5 84.33' N76°06'43"E
L6 589.60' S13°50'49"E
L7 100.00' N76°06'29"E
L8 1777.58' S42°16'15"E
L9 1870.91' S84°56'22"W
L10 834.34' N01°24'28"E
L11 1305.05' N34°00'52"W

LINE TABLE		
LINE	LENGTH	BEARING
L1	414.95	N88°52'43"E
L2	20.00	S10°13'17"E
L3	61.46	N79°10'43"E
L4	20.00	N11°25'17"W
L5	84.33	N76°06'43"E
L6	589.60	S13°50'49"E
L7	100.00'	N76°06'29"E
L8	1777.58'	S42°16'15"E
L9	1870.91'	S84°56'22"W
L10	834.34	N01°24'28"E
L11	1305.05	N34°00'52"W

N/F TOMMIE QUARTEMAN D.B. 206 PG. 154

N/F LIZZIE QUARTEMAN D.B. 206 PG. 151

N/F TOMMIE QUARTEMAN D.B. 298 PG. 158

R/W MON 0.6' NORTH OF PROPERTY CORNER

#4 RB 0.18' EAST OF PROPERTY LINE

BUILDING

APPROX. DIR.

15" RCP

BLDG.

ASPHALT PAVEMENT

SWAMP

N/F THERMO KING REFERENCE #1

IPF CMF

N12°32'02"W 7676.41'

TREE LINES (TYP)

P.O.C.
NGS LA-1AZMK
(NAD 83/94) GA EAST
N 1085285.0188
E 590385.6764

N/F ETHEL CLARK D.B. 157 PG. 58

CMF 0.27' EAST OF PROPERTY CORNER (DISTURBED)

NAD 83/94 GA. E

GENERAL NOTES

1. INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER, AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS, HIS CONTRACTORS, AND/OR HIS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION SHOWN HEREON AS TO SUCH UNDERGROUND INFORMATION.
2. BASIS OF BEARINGS NAD 84/94 G.A. EAST GRID.
3. THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 10,209 FEET AND AN ANGULAR ERROR OF 06" PER ANGLE POINT AND WAS ADJUSTED USING THE LEAST SQUARE METHOD.
4. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND WAS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 588,234 FEET.
5. EQUIPMENT USED: TOPCON 605 ELECTRONIC TOTAL STATION.
6. FIELD WORK FOR BOUNDARY SURVEY COMPLETED ON OR ABOUT 6/14/02. FIELD WORK FOR TOPOGRAPHIC SURVEY STILL IN PROGRESS AS OF THE DATE SHOWN HEREON.
7. EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS A PART OF THIS SURVEY IS NOTED HEREON. ONLY THE DOCUMENTS NOTED HEREON WERE SUPPLIED BY THE SURVEYOR. NO ABSTRACT OF TITLE, NOR TITLE COMMITMENT, NOR RESULTS OF TITLE SEARCHES WERE FURNISHED TO THE SURVEYOR. THERE MAY BE OTHER DOCUMENTS OF RECORD THAT WOULD AFFECT THIS PARCEL.
8. ELEVATIONS ARE BASED ON M.S.L. (NAVD 88).
9. SOME ASBUILT INFORMATION TAKEN FROM AERIAL PHOTOGRAPHY.
10. PROPERTY WAS UNIMPROVED AT THE TIME OF THIS SURVEY.

LEGEND

IPS	IRON PIN SET	LP	LAMP POLE
IPF	IRON PIN FOUND	-Z-Z-	POWERLINE
R/W	CONC. MONUMENT FOUND	MH	MAN HOLE
SS	SANITARY SEWER	CB	CATCH BASIN
FC	FENCE CORNER	JB	JUNCTION BOX
-X-X-	FENCE	DI	DROP INLET
OT	OPEN TOP PIN	HW	HEAD WALL
CT	CRIMP TOP PIN	CMP	CORRUGATED METAL PIPE
#4 REBAR	REINFORCING BAR	RCP	REINFORCED CONC. PIPE
CL	CENTERLINE	SSE	SEWER EASEMENT
R/W	RIGHT-OF-WAY	DE	DRAINAGE EASEMENT
WL	WATER LINE	FH	FIRE HYDRANT
C/O	CLEAN OUT	WV	WATER VALVE
CH	CHORD BEARING	WM	WATER METER
C	CHORD	GV	GAS VALVE
	POWER POLE	GM	GAS METER
POC	POINT OF COMMENCEMENT	POB	POINT OF BEGINNING

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

REFERENCES

1. SURVEY FOR THERMO KING DATED 1-6-02. SURVEYED BY McGILL & ASSOCIATES LAND SURVEYORS.
2. G.A. DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP. DATED 10-19-85. PROJECT #BRS 0937(6). PAGE 3 OF 3
3. SURVEY FOR LIZZIE W. QUARTERMAN. DATED 11-23-93. SURVEYED BY WILLIAM L. JOHNSON.
4. SURVEY FOR TOMMY QUARTERMAN. DATED 7-23-01. SURVEYED BY STEVE BARGERON & ASSOCIATES.

SURVEYORS CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAT OR MAP IS, TO THE BEST OF MY KNOWLEDGE, A TRUE AND CORRECT REPRESENTATION OF THE LAND PLATTED HEREON, THAT ALL AS-BUILT CONDITIONS ARE CORRECTLY SHOWN AND THAT THIS SURVEY MEETS CURRENT "MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS"

JEFFREY L. NIPPER, GA. PLS NO. 2736 — DATE 7/3/02

SURVEYING SOLUTIONS, INC.
P.O. BOX 329 REX, GEORGIA 30273-0329
TELEPHONE (770) 961-0305 FAX (678) 422-7868
e-mail address: jnipper@surveyingsolutions.com

ALL MATTERS PERTAINING TO TITLE ARE EXCEPTED

© This plat was prepared for the exclusive use of the person, persons, or entity named hereon. This plat does not extend to any unnamed person, persons, or entity without the express recertification of the surveyor naming such person, persons, or entity.

GEORGIA REGISTERED No. 2736 PROFESSIONAL LAND SURVEYOR JEFFREY L. NIPPER

JEFFREY L. NIPPER. GA. PLS #2736
3309 WEATHERED WOOD WAY
REX, GEORGIA 30273
PHONE: (770) 961-0305

REVISION(#)	BY:	DATE:
(1) PER COMMENTS	JN	7/2/02
CORRECTED CMD & ROAD NAME	JN	7/3/02

DATE: 6/27/02
JOB # 02-126
SCALE: 1" = 200'
PLAT BOOK ,PAGE
DEED BOOK ,PAGE

SURVEY PREPARED FOR:

THERMO KING CORPORATION & LAWYERS TITLE INSURANCE CORPORATION

LAND LOT / NA G.M.D. 82 JEFFERSON COUNTY, GEORGIA
LOT N/A BLOCK N/A UNIT N/A SUBDIVISION N/A
SURVEYED: R.F. & C.B. COMPUTED: R.D. APPROVED: J.N.

APPENDIX B

TEST BORING RECORDS AND MONITORING WELL CONSTRUCTION DETAILS

Boring Log: SB-1

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 322.27

Total Depth (ft. bgs): 11

Borehole Diameter (in.) 4

Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description
0					Ground Surface
1	-	100	0		
2					
3					
4					
5	-	100	11		***Red sandy clay*** stiff, moist, plastic, micaeous, containing moderate amounts of fine sand.
6					
7	-	100	30		
8					
9	-	100	39		
10	SB-1	100	30		
11					Boring Terminated
12					
13					
14					
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Drilling

Method: Sonic

Driller/Operator: Michael

Boring Log: SB-2

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 321.82

Total Depth (ft. bgs): 11

Borehole Diameter (in.) 4

Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description
0					Ground Surface
1	-	100	-		*Fill* Medium brown sand, moist, contsining organic matter.
	-	100	-		*Lime*
2	SB-2	100	-		*Red sandy clay* stiff, moist, plastic, micaeous, containing moderate amounts of fine sand.
3					
4					
5					
6					
7	-	100	-		
8					
9					
10					Boring Terminated
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Drilling

Method: Sonic

Driller/Operator: Michael

Boring Log: SB-3

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 322.62

Total Depth (ft. bgs): 10

Borehole Diameter (in.) 4

ESC

Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description
0					Ground Surface
0	-	100	-		***Topsoil*** Medium brown, organic.
1					
2					
3					***Fill*** Medium brown sand, mottled red and tan, moist, containing organic matter, no odor.
4	-	100	-		
5					
5	SB-3	100	0		
6					
7					***Red sandy clay*** stiff, moist, plastic, micaeous, containing moderate amounts of fine sand.
8	-	100	0		
9					
10					Boring Terminated
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Drilling

Method: Sonic

Driller/Operator: Michael

Boring Log: SB-4

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 322.90

Total Depth (ft. bgs): 11

Borehole Diameter (in.) 4

Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description
0					Ground Surface
0	-	100	-		***Topsoil*** Medium brown, organic.
1–4	-	100	0		***Fill*** Reddish brown clayey sand, medium grained, moist, no odor.
4	-	100	-		***Concrete*** Broken pieces
5–7	-	100	-		***Red sandy clay*** stiff, moist, plastic, micaeous, containing moderate amounts of fine sand.
8	SB-4	100	-		
9–10	-	100	-		
11					Boring Terminated
12–20					

Subcontractor: Alliance Drilling

Method: Sonic

Driller/Operator: Michael

Boring Log: SB-5

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 325.01

Total Depth (ft. bgs): 11

Borehole Diameter (in.) 4

Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description
0					Ground Surface
0	-	100	-		***Topsoil*** Medium brown, organic.
1					
2	-	100	54		***Fill*** Reddish brown sand, medium grained, loose.
3					
4					
5					
6	-	100	84		***Red sandy clay*** stiff, moist, plastic, micaeous, containing moderate amounts of fine sand.
7					
8					
8	SB-5	100	84		
9					
10	-	100	-		
11					Boring Terminated
12					
13					
14					
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Drilling

Method: Sonic

Driller/Operator: Michael

The boring log for SB-6 could not be located

Boring Log: SB-7

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 316.40

Total Depth (ft. bgs): 11

Borehole Diameter (in.) 4

Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description
					Ground Surface
0	-	100	-		***Topsoil*** Medium brown, organic.
1					
2					
3	-	100	-		***Medium brown sand*** medium grained, moist, loose, containing fine gravel and clay, minor amount of organics, no odor.
4					
5					
6	-	100	54		
7	SB-7	100	54		***Red sandy clay*** stiff, moist, plastic, micaeous, containing moderate amounts of fine sand with prominent lens at 6 and 8 feet bgs.
8					
9	-	100	-		
10					
11					Boring Terminated
12					
13					
14					
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Drilling

Method: Sonic

Driller/Operator: Michael

Boring Log: SB-8

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 315.62

Total Depth (ft. bgs): 11

Borehole Diameter (in.) 4

Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description
0					Ground Surface
0	-	100	-		***Topsoil*** Medium brown, organic.
1	-	100	-		***Reddish brown clay*** stiff, moist, plastic, containing orgainc matter, no odor.
2					
3					
4	-	100	-		***Medium brown sand*** medium grained, moist, loose, containing minor amounts of red clay, no odor.
5					
6					
6	-	100	-		
7	SB-8	100	-		
8					
9	-	100	-		***Reddish brown sandy clay*** stiff, moist, plastic, micaeous, containing lenses of fine sand.
10					
11					Boring Terminated
12					
13					
14					
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Drilling

Method: Sonic

Driller/Operator: Michael

Boring Log: SB-9

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 315.62

Total Depth (ft. bgs): 11

Borehole Diameter (in.) 4

Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description
0					Ground Surface
0	-	100	-		***Topsoil*** Medium brown, organic.
1	-	100	-		***Reddish brown clay*** stiff, moist, plastic, containing orgainc matter, no odor. Concrete chunks at 2 feet bgs.
2					
3					
4					
5	-	100	-		
6					***Red sandy clay*** stiff, moist, plastic, micaeous, containing minor amounts of fine sand, no odor.
7					
8					
8	SB-9	100	-		
9					
10	-	100	-		
11					Boring Terminated
12					
13					
14					
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Drilling

Method: Sonic

Driller/Operator: Michael

Boring Log: SB-10

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 313.2

Total Depth (ft. bgs): 11

Borehole Diameter (in.) 4

Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description
0					Ground Surface
	-	100	-		***Topsoil*** Medium brown, organic.
1	-	100	-		***Red-brown clay*** loose, moist, plastic, containing minor amounts of medium grained sand, no odor.
2					
3	-	100	-		***Medium to dark brown sand*** medium grained, well sorted, black staining observed at 2.5 feets bgs, no odor.
4					
5	SB-10	100	-		
6					
7					***Red sandy clay*** stiff, moist, plastic, micaeous, containing lenses of fine sand, no odor.
8	-	100	-		
9					
10					
11					Boring Terminated
12					
13					
14					
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Driling

Method: Geoprobe

Driller/Operator:

Boring Log: MW-1

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: January 31, 2000

Surface Elevation (ft. MSL): 333.76

Total Depth (ft. bgs): 78

TOC Elevation (ft. MSL): 333.54

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
0				Ground Surface	
1				*Tan sand* medium grained, well sorted, moist, minor amount of organics, trace of clay, no odor.	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18				*Red clay* moist, stiff, plastic, micaeous, tan sand nodules throughout layer, no odor.	
19					
20					
21					
22					
23					
24					
25					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-1

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: January 31, 2000

Surface Elevation (ft. MSL): 333.76

Total Depth (ft. bgs): 78

TOC Elevation (ft. MSL): 333.54

Borehole Diameter (in.): 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
26–33	-			***Red clay*** moist, stiff, plastic, micaeous, tan sand nodules throughout layer, no odor.	
34–45	-			***Red clayey sand*** fine to medium grained, loose, slightly plastic, miceous, no odor.	
45–47	-			***White sand*** fine grained, well sorted, loose, damp, containing some red laminae, no odor.	
47–50					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-1

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: January 31, 2000

Surface Elevation (ft. MSL): 333.76

Total Depth (ft. bgs): 78

TOC Elevation (ft. MSL): 333.54

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
51–57	-			*Yellowish brown sand* coarsening with depth, moist, loose, minor amounts of clay at the top of unit, no odor.	
57–60	-			*Yellowish brown clay* very plastic, soft, moist, containing white laminae with dense clay lenses.	
60–65	-			*Medium brown clay* very plastic, hard, stiff, containing yellow and red laminae, no odor.	
65–75	-			*Medium brown sand* coarse grained, some clay, containing tan laminae, becoming saturated at bottom, no odor.	

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-1

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: January 31, 2000

Surface Elevation (ft. MSL): 333.76

Total Depth (ft. bgs): 78

TOC Elevation (ft. MSL): 333.54

Borehole Diameter (in.) 4

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
76	-			*Light tan clay* very plastic, stiff, traces of fine sand, no odor.	
77					
78				Boring Terminated	
79					
80					
81					
82					
83					
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-2

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 1, 2000

Surface Elevation (ft. MSL): 322.42

Total Depth (ft. bgs): 68

TOC Elevation (ft. MSL): 322.25

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
0				Ground Surface	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12				*Red sandy clay* plastic, stiff, micaeous, minor amount of organic matter(0-1'), some fine sand, no odor.	
13					
14					
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-2

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 1, 2000

Surface Elevation (ft. MSL): 322.42

Total Depth (ft. bgs): 68

TOC Elevation (ft. MSL): 322.25

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
21					
22	-				
23					
24					
	-			*Red sand*	
25				medium to coarse grained, trace of clay, moist, no odor.	
26					
27					
28					
29					
30					
31					
32					
	-			*Yellow sand*	
33				coarse grained, well sorted, damp, trace of clay, no odor.	
34					
35					
36					
37					
38					
39					
40					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-2

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 1, 2000

Surface Elevation (ft. MSL): 322.42

Total Depth (ft. bgs): 68

TOC Elevation (ft. MSL): 322.25

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
41				*White sand* coarse grained, well sorted, damp, some clay, no odor.	
42					
43	-			*Orange sand* coarse grained, some clay, well sorted, damp, no odor.	
44					
45					
46				*Yellow brown clay* very plastic, soft, moist, white and red laminations, containing some hard clay nodules, no odor.	
47	-				
48					
49					
50	-			*Medium brown sand* coarse grained, well sorted, moist to wet, loose, contining white and red clay laminations to 52', saturated at 52'.	
51					
52					
53					
54					
55	-				
56					
57					
58					
59				*Light tan clay* very plastic, stiff, some fine sand, damp, no odor.	
60					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-2

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 1, 2000

Surface Elevation (ft. MSL): 322.42

Total Depth (ft. bgs): 68

TOC Elevation (ft. MSL): 322.25

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
61					
62	-			*Light tan gravel with clay* poorly sorted, saturated, plastic, no odor.	
63					
64					
65	-			*Light tan clay* very plastic, stiff, some broken shells, slightly damp and becoming drier with depth.	
66					
67					
68				Boring Terminated	
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-3

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 2, 2000

Surface Elevation (ft. MSL): 325.45

Total Depth (ft. bgs): 63

TOC Elevation (ft. MSL): 325.30

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
0	-	-		Ground Surface	
				Asphalt	
1				*Fill* gravel and sand.	
2	-	-		*Medium brown sand* medium to coarse grained, well sorted, loose, some clay.	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16				*Red sandy clay* very plastic, stiff, damp, micaeous, minor amounts of fine sand, no odor.	
17					
18					
19					
20					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-3

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 2, 2000

Surface Elevation (ft. MSL): 325.45

Total Depth (ft. bgs): 63

TOC Elevation (ft. MSL): 325.30

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
21–28	-	-		*Red sandy clay* very plastic, stiff, damp, micaceous, minor amounts of fine sand, no odor.	
29–32	-	-		*Red clayey sand* medium to coarse grained, loose, no odor.	
33–40				*Yellow sand* medium to coarse grained, well sorted, loose, with white and tan mottling, no odor.	

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-3

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 2, 2000

Surface Elevation (ft. MSL): 325.45

Total Depth (ft. bgs): 63

TOC Elevation (ft. MSL): 325.30

Borehole Diameter (in.) 4

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
41–46	-	-		***Yellow sand*** medium to coarse grained, well sorted, loose, with white and tan mottling, no odor.	
46–48	-	-		***Yellowish brown clay*** vey plastic, stiff, damp, containing minor amounts of fine sand, white and red laminations, no odor.	
48–50				***Reddish orange sand*** medium to fine grained, well sorted, moist, loose, containing broken shells, no odor.	
50–52	-	-		***Yellowish brown clay*** very plastic, stiff, damp, containing a few hard clay nodules and minor amounts of fine sand, no odor.	
52–53	-	-		***Medium brown to yellow sand*** damp, with clay, no odor.	
54–55	-	-		***Medium brown sandy clay*** very plastic, soft, damp, no odor.	
56–60				***Medium brown sand*** medium to coarse grained, well sorted, saturated, tan and yellow mottling, no odor.	

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-3

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 2, 2000

Surface Elevation (ft. MSL): 325.45

Total Depth (ft. bgs): 63

TOC Elevation (ft. MSL): 325.30

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
61	-	-			
62					
63				*Light tan clay* clay present at 63'.	
64				Boring Terminated	
65					
66					
67					
68					
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-4

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 323.74

Total Depth (ft. bgs): 68

TOC Elevation (ft. MSL): 323.61

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
0	-	-		Ground Surface *Asphalt*	
1	-	0		*Medium brown sand* fine to medium grained, loose, damp, trace clay, no odor.	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15				*Red sandy clay* very plastic, damp, stiff, with occasional fine sand, no odor.	
16					
17					
18					
19					
20					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-4

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 323.74

Total Depth (ft. bgs): 68

TOC Elevation (ft. MSL): 323.61

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
21–26	-	0		*Red sandy clay* very plastic, damp, stiff, with occasional fine sand, no odor.	
27–33				*Yellowish brown sand* medium to coarse grained, damp, loose, with tan and red laminations, no odor.	
34	-	6		*White sand* medium grained, well sorted, damp, no odor.	
35–40				*Yellowish brown sand* medium to coarse grained, with tan, white, red laminations, no odor.	

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-4

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 323.74

Total Depth (ft. bgs): 68

TOC Elevation (ft. MSL): 323.61

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
41–43	-	0		***Yellowish brown sand*** medium to coarse grained, with tan, white, red laminations, no odor.	
44–45	-	0		***Yellow brown clay*** plastic, damp, with occasional fine sand lenses, no odor.	
46–58	-	0		***Brown sand*** medium to coarse grained, with orange and tan mottling, some clay, moist, no odor.	
59–60					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-4

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 3, 2000

Surface Elevation (ft. MSL): 323.74

Total Depth (ft. bgs): 68

TOC Elevation (ft. MSL): 323.61

Borehole Diameter (in.) 4

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
61					
62					
63					
64	-	0		*Light tan clay* very plastic, damp to dry, stiff, with occasional fine sand lenses, no odor.	
65					
66					
67					
68				Boring Terminated	
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-5

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 1, 2000

Surface Elevation (ft. MSL): 321.11

Total Depth (ft. bgs): 58

TOC Elevation (ft. MSL): 320.91

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
0				Ground Surface	
	-	-		*Topsoil*	
1	-	-		*Medium brown sand* medium grained, moist, minor amounts of clay, no odor.	
2					
3	-	-		*Medium brown clayey sand* medium grained sand, mixed with moderate amount of red clay, moist, no odor	
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15				*Red sandy clay* very plastic, stiff, damp, micaeous, minor amounts of fine sand, no odor.	
16					
17					
18					
19					
20					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-5

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 1, 2000

Surface Elevation (ft. MSL): 321.11

Total Depth (ft. bgs): 58

TOC Elevation (ft. MSL): 320.91

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
21–26	-	-		***Red sandy clay*** very plastic, stiff, damp, micaeous, minor amounts of fine sand, no odor.	
27–34	-	-		***Yellow brown sand*** coarse grained, well sorted, damp, no odor.	
35–40	-	-		***White to light tan sand*** coarse grained, well sorted, loose, damp, trace clay, no odor.	

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-5

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 1, 2000

Surface Elevation (ft. MSL): 321.11

Total Depth (ft. bgs): 58

TOC Elevation (ft. MSL): 320.91

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
41–44	-	-		*Orange sand* coarse grained, mosits, well sorted, trace clay, some broken shells, no odor.	
44–47	-	-		*Dark brown clay* vey plastic, stiff, containing minor amounts of fine sand with white, yellow and red laminations.	
47–54	-	-		*Medium brown sand* coarse grained, well sorted, saturated, occasional clay stringers, no odor.	
54–58	-	-		*Light tan clay* very plastic, moist, stiff, with occasional gravel size clasts and brown sand stringers, no odor.	
58–60				Boring Terminated	

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-6

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 2, 2000

Surface Elevation (ft. MSL): 314.29

Total Depth (ft. bgs): 58

TOC Elevation (ft. MSL): 314.14

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
0				Ground Surface	
	-	-		*Asphalt*	
1	-	-		*Gravel fill*	
	-	0		*Medium brown sand* fine to medium grained, well sorted, damp, no odor.	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14				*Red sandy clay* very plastic, stiff, damp, micaeous, minor amounts of fine sand, no odor.	
15					
16					
17					
18					
19					
20					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-6

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 2, 2000

Surface Elevation (ft. MSL): 314.29

Total Depth (ft. bgs): 58

TOC Elevation (ft. MSL): 314.14

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
21–26	-	0		***Red sandy clay*** very plastic, stiff, damp, micaeous, minor amounts of fine sand, no odor.	
26–31	-	0.5		***Yellowish brown sand*** coarse grained, well sorted, damp, loose, no odor.	
31–32	-	0		***Yellowish brown clay*** plsticy, soft,moist, minor mount of fine sand, no odor.	
32–35	-	0		***Yellow sand*** coarse grained, well sorted, with orange and tan mottling, containing broken marine invertebrate fossils, no odor.	
35–37	-	0		***Light brown sand*** coarse grained, moderately sorted, moist to wet, minor amount of clay, no odor.	
37–38	-	0		***Medium brown clay*** plastic, soft, with tan and black laminations, no odor.	
38–40					

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

Boring Log: MW-6

Project: Thermo King

Project No.: 185754

Location: Louisville, Georgia

Geologist: CEB

Completion Date: February 2, 2000

Surface Elevation (ft. MSL): 314.29

Total Depth (ft. bgs): 58

TOC Elevation (ft. MSL): 314.14

Borehole Diameter (in.) 4

ESC

Sample Data			SUBSURFACE PROFILE		
Depth	Sample Interval	PID (ppm)	Symbol	Description	Well Construction
41–48	-	0		***Medium brown sand*** coarse grained, well sorted, with light tan and very dark brown mottling, no odor.	
48–52	-	0		***Light tan clay*** very plastic, stiff, damp, containing moderate amount of coarse sand and gravel, no odor.	
52–58	-	0		***Light tan to white clay*** very plastic, hard, dry, no odor.	
58–60				Boring Terminated	

Subcontractor: Alliance Environmental

Method: Sonic

Driller: Michael

TEST BORING RECORD

DATUM ELEVATION: 331.5

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
331.5	0.0	0-2" asphalt	0	SO-E-1-(0-2)
	0.2	SILTY CLAY, red, low plastic, low amount of medium grained subangular quartz, clear, dry.		
326.5			0	
321.5			0	
	12.0	CLAYEY SILT, red, low amount of medium grained subangular quartz, clear, dry.	0	
316.5			0	
311.5			0	
	22.0	CLAYEY SAND, orange, dry.		
	24.0	SAND, mottled orange and tan (darker orange layer has more clay). Sand is angular, moderately well sorted, medium-grained, clear, dry.	0	
306.5			0	
301.5	30.0	SAND, angular, moderately well sorted, medium-grained, clear.		
	32.0	CLAYEY SAND, yellowish-orange, medium-grained, moderately well sorted, angular, wet at 34'	4	SO-E-1 (32-34) GW-E-1 (34)
296.5		CLAYEY SAND, yellowish-orange, very fine grained, subrounded, wet grading to CLAY, red, with chert sand and gravel, subrounded, wet.	5	
	38.0			
	39.0	CLAY, red, some chert, sand and gravel, subrounded, wet grading to CLAYEY SAND, laminated red and black, fine-grained, subrounded, wet.		
291.5				

C:\TK\GW-E1.PL3 TLC-1 11-17-00

REMARKS:
1. Drilling Technique: 0 to 55 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-E-1-(0-2) = Soil sampled collected for laboratory analysis.
4. GW-E-1(34) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-1
LOGGED BY	AK	DATE STARTED	9/25/00
CHECKED BY	RNQ	DATE COMPLETED	9/26/00
		JOB NUMBER	12000-0-2050.04

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

TEST BORING RECORD

DATUM ELEVATION: 331.5

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
291.5	40.0	SILTY CLAY, red, moderately plastic, some sand, wet.		12	
	42.0	CLAYEY SAND, red, fine grained, wet CLAYEY SAND, laminated red and orange, fine-grained, clayey sand, yellow, medium-grained, subangular, wet.		4	
286.5	45.0	SAND, trace of clay, light tan, medium-grained, subangular, trace of black sand, fine-grained, wet.			
	48.0	CLAY, tan, some sand, fine-grained, moderately plastic.		0	GW-E-1 (48)
281.5					
276.5	55.0	Boring terminated at 55.0 feet			
271.5					
266.5					
261.5					
256.5					
251.5					

C:\TK\GW-E1.PL3 TLC-1 11-17-00

REMARKS:
1. Drilling Technique: 0 to 55 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-E-1-(0-2) = Soil sampled collected for laboratory analysis.
4. GW-E-1(34) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-1
LOGGED BY	AK	DATE STARTED	9/25/00
CHECKED BY	RNQ	DATE COMPLETED	9/26/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 337.6

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
337.6	0.0	No soil samples collected 0 to 55 feet			
332.6					
327.6					
322.6					
317.6					
312.6					
307.6					
302.6					
297.6					

C:\TK\GW-E2.PL3 TLC-1 11-17-00

REMARKS:
1. Drilling Technique: 0 to 56 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-2(55) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-2
LOGGED BY	AK	DATE STARTED	9/26/00
CHECKED BY	RNQ	DATE COMPLETED	9/27/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 337.6

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
297.6	40.0	No soil samples collected 0 to 55 feet			
292.6					
287.6					
282.6	55.0	CLAY, tan plastic, 15% sand, medium-grained, poorly sorted, subangular, clear, dry		1	GW-E-2 (55)
	56.0	Boring terminated at 56.0 feet			
277.6					
272.6					
267.6					
262.6					
257.6					

REMARKS:
1. Drilling Technique: 0 to 56 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-2(55) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-2
LOGGED BY	AK	DATE STARTED	9/26/00
CHECKED BY	RNQ	DATE COMPLETED	9/27/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 341.7

C:\TK\GW-E3.PL3 TLC-1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA
341.7	0.0	0-2" asphalt	0
	0.2	SAND with some clay, dark tan subrounded fine to medium-grained, moderately sorted	
	3.0	SILTY CLAY, red, non-plastic, some sand fine grained; subrounded, poorly sorted, dry	0
336.7			
			0
331.7			
			0
326.7			
			0
321.7			
			0
	24.0	SANDY CLAY, red, non-plastic, well-sorted subangular, fine-grained, dry	
316.7			0
			0
311.7	30.0	SANDY CLAY, orange, non-plastic, moderately sorted, medium-grained, subangular	
			0
	34.0	SANDY CLAY, yellow, non-plastic, fine-grained, subangular, 5% black sand	
306.7			
	36.0	SAND, white, subangular, poorly sorted, fine-grained, 10% clay, some black sand, fine-grained	
301.7			

REMARKS:
1. Drilling Technique: 0 to 60 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-3(44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-3
LOGGED BY	AK	DATE STARTED	9/28/00
CHECKED BY	RNQ	DATE COMPLETED	9/28/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 341.7

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
301.7	41.0	CLAYEY SAND, yellow and light tan mottled, subrounded, moderately well sorted, fine-grained, damp			
	44.0	SAND, light tan, medium-grained, poorly sorted, subrounded, wet			GW-E-3 (44-48)
296.7	46.0	CLAYEY SAND, yellow, fine-grained, poorly sorted, subrounded lenses of yellow clay, very plastic, wet			
	47.0	CLAY, white, coarse clay particles subrounded lenses of sand, light tan, very fine grained, 5% black sand			
	48.0	CLAYEY SAND, alternating laminations of black (very clayey), brown, orange and tan, poorly sorted, fine to medium-grained, subangular, black sand 5%, wet			
291.7					GW-E-3 (52-56)
286.7	55.0	CLAYEY SAND, light to greenish-grey, subrounded, moderately sorted, fine grained, wet			
	56.0	SANDY CLAY, light to greenish-gray, plastic, sand and shell fragments and quartz, black sand 5%, wet			GW-E-3 (56-60)
	58.0	CLAY, light tan, moderately plastic, gravel, 30% cemented quartz and shell fragments, angular grains, black sand 5%, moist			
281.7	60.0	Boring terminated at 60.0 feet			
276.7					
271.7					
266.7					
261.7					

REMARKS:
1. Drilling Technique: 0 to 60 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-3(44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-3
LOGGED BY	AK	DATE STARTED	9/28/00
CHECKED BY	RNQ	DATE COMPLETED	9/28/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 340.0

C:\TK\GW-E4.PL3 TLC-1 11-17-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
340.0	0.0	0-6" light tan sand, poorly sorted, medium-grained, subrounded.	3	SO-E-4-(0-2)
	0.5	SILTY CLAY, red, non-plastic, dry.		
335.0			0	
330.0			0	
325.0			0	
320.0			0	
315.0			0	
	26.0	SANDY CLAY, red and yellow mottled, non-plastic,		
	27.0	poorly sorted, fine to medium-grained, subangular, clear quartz.		
		CLAYEY SAND, yellow (some red mottled), poorly sorted, fine to medium-gained subangular.	0	
310.0				
	32.0	CLAYEY SAND, yellow with some red mottled, medium-grained, moderately well sorted, sub-rounded, clear quartz.	0	
305.0				
	38.0	SAND with minor amount of clay, light tan, medium-grained, moderately well sorted, subangular, clear quartz.		
300.0				SO-E-4 (40-42)

REMARKS:

1. Drilling Technique: 0 to 61 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-E-4-(0-2) = Soil sampled collected for laboratory analysis.
4. GW-E-4(40-42) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-4
LOGGED BY	AK	DATE STARTED	9/26/00
CHECKED BY	RNQ	DATE COMPLETED	9/27/00
		JOB NUMBER	12000-0-2050.04

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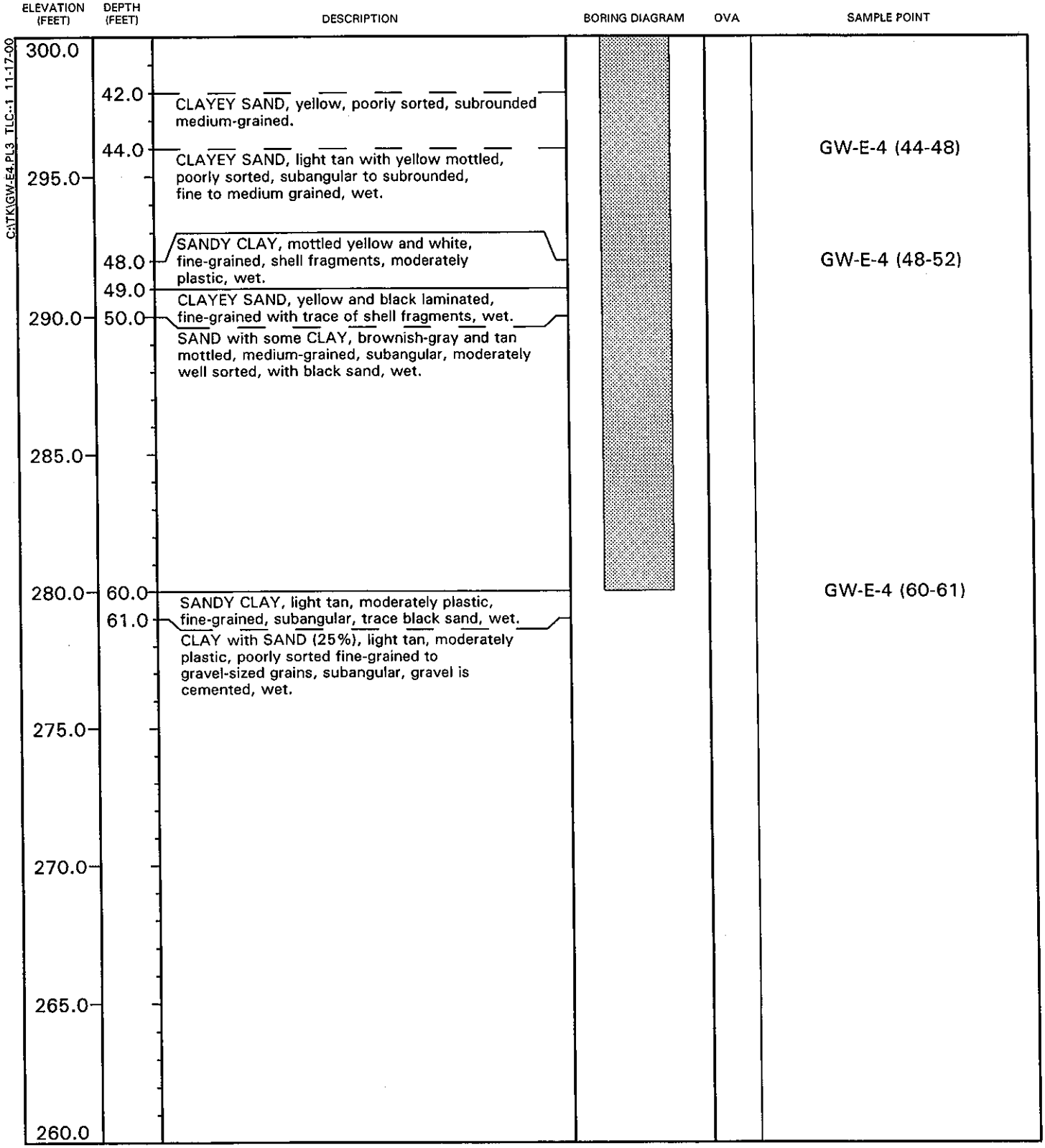
TEST BORING RECORD

DATUM ELEVATION: 340.0



REMARKS:

1. Drilling Technique: 0 to 61 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-E-4-(0-2) = Soil sampled collected for laboratory analysis.
4. GW-E-4(40-42) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-4
LOGGED BY	AK	DATE STARTED	9/26/00
CHECKED BY	RNQ	DATE COMPLETED	9/27/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 338.9

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
338.9	0.0	1" topsoil with roots, grading to clayey silty, gray, non-plastic	0	SO-E-5 (0-2)
	1.0	SILTY CLAY, red, low plasticity, subangular, dry		
333.9			0	
328.9			0	
323.9			0	
318.9			0	
	24.0	CLAYEY SAND, red, dry, subangular, moderately well sorted, fine to medium-grained	0	
313.9				
	28.0	CLAYEY SAND, yellow, dry, subangular, moderately well sorted, fine to medium-grained	0	
308.9				
	32.0	CLAYEY SAND, yellow to light tan laminations, dry, subangular, moderately well sorted, fine to medium-grained	0	
303.9				
	36.0	CLAYEY SAND, yellow and red laminations becoming red with more clay, dry, subangular, moderately well sorted fine to medium-grained	0	SO-E-5 (36-38)
	38.0	CLAYEY SAND, yellow, subangular, moderately well sorted, medium to coarse grained, some shell fragments, laminations at bottom, wet at 42'		
298.9				

C:\TK\GW-E5.PL3 TLC-1 11-17-00

REMARKS:
1. Drilling Technique: 0 to 58 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-E-5 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-E-5 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-5
LOGGED BY	AK	DATE STARTED	9/27/00
CHECKED BY	RNQ	DATE COMPLETED	9/28/00
		JOB NUMBER	12000-0-2050.04

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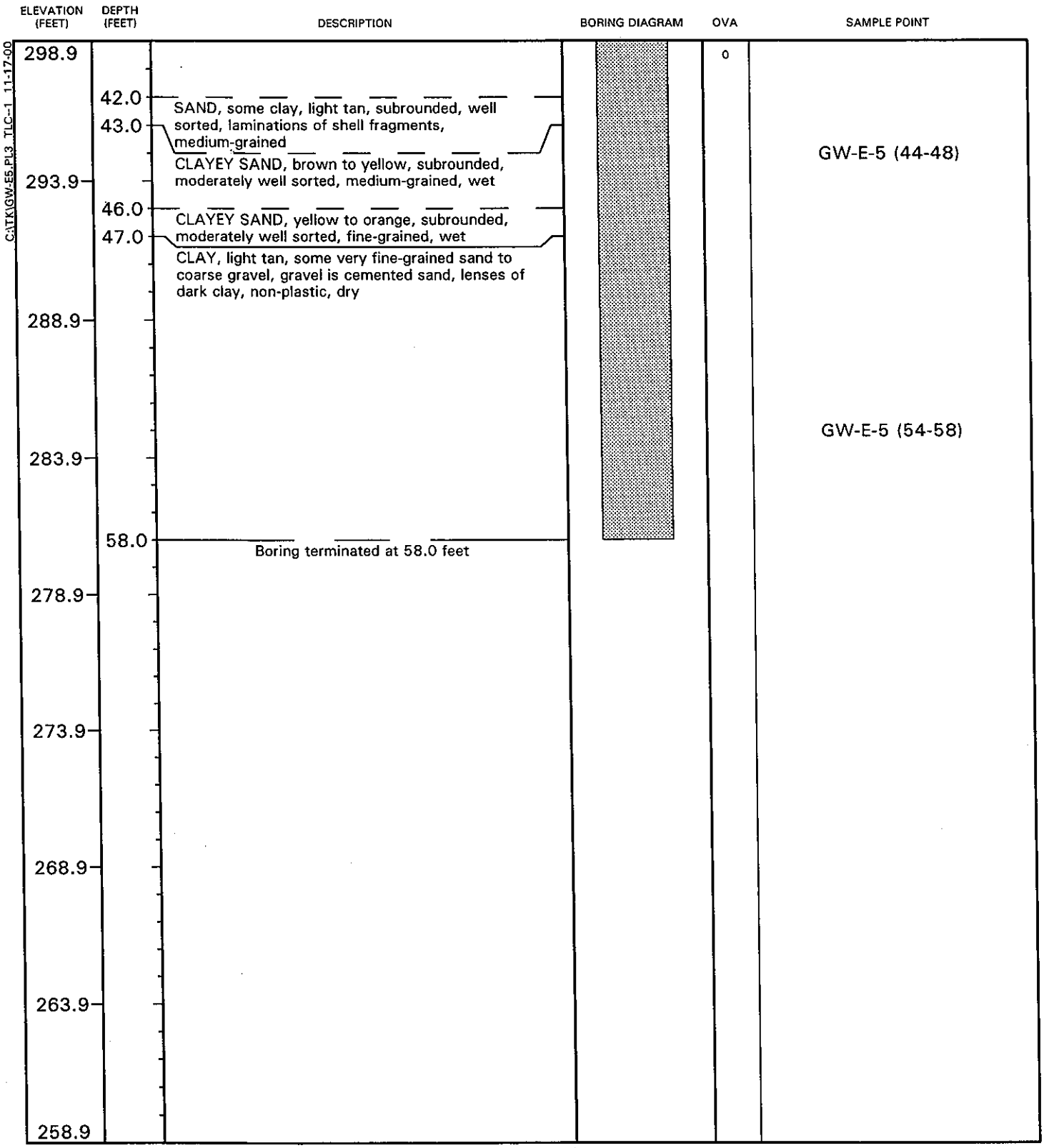
TEST BORING RECORD

DATUM ELEVATION: 338.9



REMARKS:

1. Drilling Technique: 0 to 58 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-E-5 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-E-5 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-5
LOGGED BY	AK	DATE STARTED	9/27/00
CHECKED BY	RNQ	DATE COMPLETED	9/28/00
		JOB NUMBER	12000-0-2050.04

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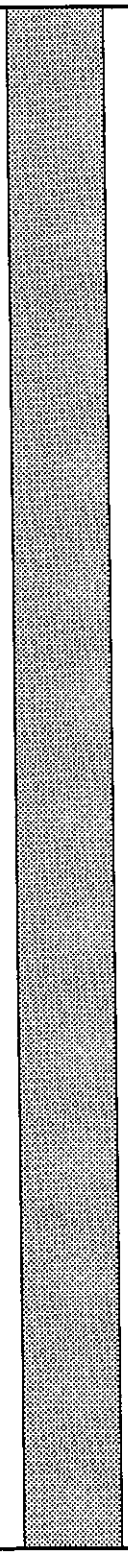
TEST BORING RECORD

DATUM ELEVATION: 338.7

C:\TK\GW-E6.PL3 TLC-1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
338.7	0.0	0-6" sandy topsoil
	0.5	SILTY CLAY, red, moderately plastic, few quartz sand grains, subrounded, fine to medium-grained, few black sand grains
333.7		
328.7		
323.7		
318.7		
	22.0	SANDY CLAY, orange, non-plastic, subrounded, poorly sorted, medium-grained, few black sand grains
313.7		
	26.0	CLAYEY SAND, orange and yellow mottled, moderately sorted, fine-grained, subrounded with few black sand grains, damp
308.7		
303.7		
298.7		

BORING DIAGRAM



OVA

SAMPLE POINT

REMARKS:

1. Drilling Technique: 0 to 64 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-6 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-6
LOGGED BY	AK	DATE STARTED	10/3/00
CHECKED BY	RNQ	DATE COMPLETED	10/3/00
		JOB NUMBER	12000-0-2050.04

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

TEST BORING RECORD

DATUM ELEVATION: 338.7

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
298.7	40.0	CLAYEY SAND, light tan, subangular, medium-grained, few black sand grains, moderately to poorly sorted, damp			
	44.0				
293.7		CLAYEY SAND, orange, subrounded, medium-grained, poorly sorted, few black sand grains and shell fragments, lenses of gravely clay, white and orange gravel is mudstone; laminations of black clay with lenses of shell fragments, wet			
288.7	50.0	CLAYEY SAND, brown and tan, minor yellow laminations, lenses of clay; sand is fine-grained, subrounded, moderately well sorted, wet			GW-E-6 (52-56)
	52.0	CLAYEY SAND, brown to tan, sand is fine-grained, subrounded, moderately well sorted, some black gravel, gravel is cemented with quartz sand and black sand, wet			
283.7	56.0				GW-E-6 (56-60)
		CLAYEY SAND, light tan, fine to medium-grained, subangular, moderately well sorted, few black sand grains and shell fragments			
278.7	60.0	CLAY, light tan, very plastic, few shell fragments, gravel of cemented clay			
	64.0	Boring terminated at 64.0 feet			
273.7					
268.7					
263.7					
258.7					

C:\TK\GW-E6.PL3 TLC-1 12-12-00

REMARKS:
1. Drilling Technique: 0 to 64 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-6 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-6
LOGGED BY	AK	DATE STARTED	10/3/00
CHECKED BY	RNQ	DATE COMPLETED	10/3/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 330.61

C:\TK\GW-E7.PL3 TLC-1 12-20-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
330.6	0.0	No soils collected from 0 to 52 feet.			
325.6					
320.6					
315.6					
310.6					
305.6					
300.6					GW-E7 (31-35)
295.6					GW-E7 (35-39)
290.6					

REMARKS:
1. Drilling Technique: 0 to 56 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-7 (31-35) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-7
LOGGED BY	CK	DATE STARTED	10/3/00
CHECKED BY	RNQ	DATE COMPLETED	10/3/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 330.61

C:\TK\GW-E7.PL3 TLC-1 12-20-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
290.6	40.0	No soils collected from 0 to 52 feet.			
285.6					
280.6					GW-E7 (48-52)
	52.0				
	53.0	CLAY; light tan, moderately plastic, some gravel, cemented sand, shell fragments.			
275.6		SILTY CLAY; light tan, very plastic, silt consists of shell fragments, some sand, and trace of quartz.			
	56.0	Boring terminated at 56.0 feet.			
270.6					
265.6					
260.6					
255.6					
250.6					

REMARKS:

1. Drilling Technique: 0 to 56 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-7 (31-35) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-7
LOGGED BY	CK	DATE STARTED	10/3/00
CHECKED BY	RNQ	DATE COMPLETED	10/3/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 331.6

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
331.6	0.0	No soils samples collected 0 to 54 feet.			
326.6					
321.6					
316.6					
311.6					
306.6					
301.6					
296.6					
291.6					

C:\TK\GW-E8.PL3 TLC-1 11-17-00

REMARKS:
1. Drilling Technique: 0 to 54 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-8 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-8
LOGGED BY	AK	DATE STARTED	10/4/00
CHECKED BY	RNQ	DATE COMPLETED	10/4/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 331.6

C:\TK\GW-E8.PL3 TLC-1 11-17-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
291.6	40.0	No soils samples collected 0 to 54 feet.			GW-E-8 (40-44)
					GW-E-8 (44-48)
286.6					
					GW-E-8 (50-54)
281.6					
	54.0	CLAY, light tan			
276.6	54.0	Boring terminated at 54.0 feet			
271.6					
266.6					
261.6					
256.6					
251.6					

REMARKS:
1. Drilling Technique: 0 to 54 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-8 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-8
LOGGED BY	AK	DATE STARTED	10/4/00
CHECKED BY	RNQ	DATE COMPLETED	10/4/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 333.4

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
333.4	0.0	No soils samples collected 0 to 54 feet.			
328.4					
323.4					
318.4					
313.4					
308.4					
303.4					
298.4					
293.4					GW-E-9 (38-42)

C:\TK\GW-E9.PL3 TLC-1 11-17-00

REMARKS:
1. Drilling Technique: 0 to 54 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-9 (38-42) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-9
LOGGED BY	AK	DATE STARTED	10/4/00
CHECKED BY	RNQ	DATE COMPLETED	10/4/00
		JOB NUMBER	12000-0-2050.04

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

TEST BORING RECORD

DATUM ELEVATION: 333.4

C:\TK\GW-E9.PL3 TLC-1 11-17-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
293.4					
					GW-E-9 (44-48)
288.4					
					GW-E-9 (50-54)
283.4					
	52.0	CLAY light tan			
	54.0	Boring terminated at 54.0 feet			
278.4					
273.4					
268.4					
263.4					
258.4					
253.4					

REMARKS:

1. Drilling Technique: 0 to 54 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-9 (38-42) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-9
LOGGED BY	AK	DATE STARTED	10/4/00
CHECKED BY	RNQ	DATE COMPLETED	10/4/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 332.8

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
332.8	0.0	No soil samples collected 0 to 53 feet.			
327.8					
322.8					
317.8					
312.8					
307.8					
302.8					
297.8					
292.8					

C:\TK\GW-E10.PL3 TLC-1 11-17-00

REMARKS:
1. Drilling Technique: 0 to 53 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-10 (44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-10
LOGGED BY	AK	DATE STARTED	10/4/00
CHECKED BY	RNQ	DATE COMPLETED	10/5/00
		JOB NUMBER	12000-0-2050.04

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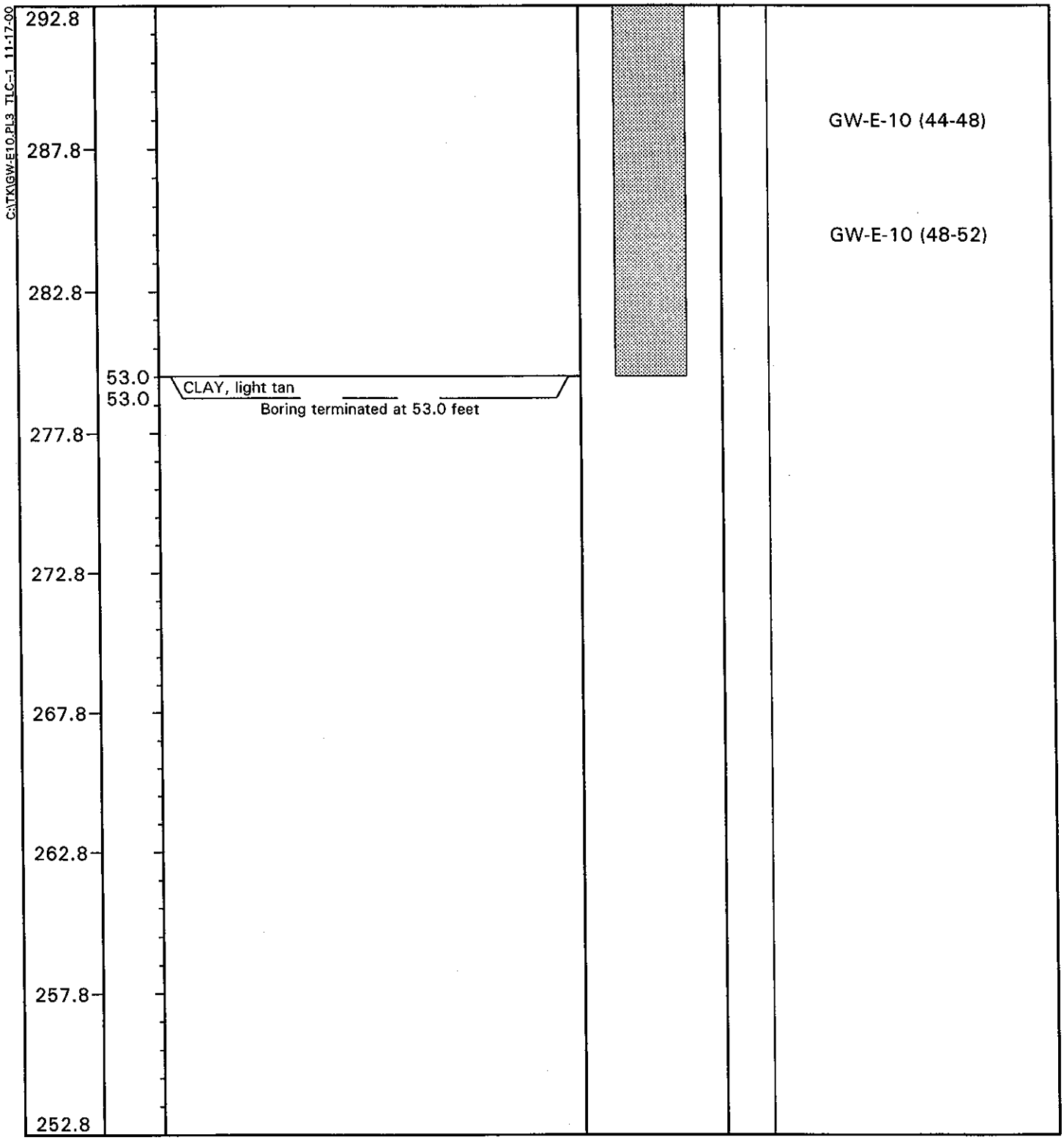
TEST BORING RECORD

DATUM ELEVATION: 332.8



REMARKS:

1. Drilling Technique: 0 to 53 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-10 (44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-10
LOGGED BY	AK	DATE STARTED	10/4/00
CHECKED BY	RNQ	DATE COMPLETED	10/5/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 335.0

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
335.0	0.0	No soil samples collected 0 to 59 feet.			
330.0					
325.0					
320.0					
315.0					
310.0					
305.0					
300.0					
295.0					

C:\TK\GW-E11.PL3 TLC-1 11-17-00

REMARKS:
1. Drilling Technique: 0 to 59 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-11 (44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-11
LOGGED BY	AK	DATE STARTED	10/5/00
CHECKED BY	RNQ	DATE COMPLETED	10/5/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 335.0

C:\TK\GW-E11.PL3 TLC-1 11-17-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
295.0					
290.0					GW-E-11 (44-48)
285.0					GW-E-11 (50-54)
280.0	55.0	CLAYEY SAND, light tan, sand is poorly sorted, medium-grained, composed of quartz and shell fragments.			GW-E-11 (54-58)
275.0	59.0 59.0	CLAY, light tan, very plastic. Boring terminated at 59.0 feet			
270.0					
265.0					
260.0					
255.0					

REMARKS:

1. Drilling Technique: 0 to 59 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-11 (44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-11
LOGGED BY	AK	DATE STARTED	10/5/00
CHECKED BY	RNQ	DATE COMPLETED	10/5/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 336.4

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA
336.4	0.0	0-6" sandy topsoil	0
	0.5	SILTY CLAY, red, some sand, quartz, low plasticity	
331.4			0
326.4			0
321.4			0
316.4	20.0	CLAYEY SAND, red, fine-grained, moderately well sorted, subangular	0
	22.0	CLAYEY SAND, orange, fine-grained, moderately sorted, subangular grading to CLAYEY SAND, yellow to tan, poorly sorted, medium-grained, subangular.	
311.4			0
306.4	30.0	CLAYEY SAND, very fine grained, yellow to tan, subangular, few black sand grains	0
	32.0	SAND, medium-grained, yellow to light tan, poorly sorted, few black sand grains, subrounded, some clay	
301.4			
	36.0	SAND, light tan, fine grained, moderately sorted, some clay, subangular, few black sand grains	0
	39.0	CLAYEY SAND, yellow, fine grained, moderately sorted, subangular, trace black sand	
296.4			

BORING DIAGRAM

SAMPLE POINT

C:\TK\GW-E12.PL3 TLC-1 11-17-00

REMARKS:
1. Drilling Technique: 0 to 54 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-12 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-12
LOGGED BY	AK	DATE STARTED	10/5/00
CHECKED BY	RNQ	DATE COMPLETED	10/6/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 336.4

C:\TK\GW-E12.PL3 TLC-1 11-17-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
296.4	40.0	CLAY, mottled yellow, tan, orange and black, coarse gravel, claystone and cemented sand, moderately plastic, wet			GW-E-12 (40-44)
					GW-E-12 (44-48)
291.4	45.0	CLAYEY SAND, light brown becoming laminated with dark gray, fine-grained, moderately well sorted, subrounded			
	48.0	CLAYEY SAND, laminated yellow, brown and black, medium-grained, moderately well sorted, subangular			
286.4					GW-E-12 (50-54)
	51.0	SANDY CLAY, light tan, medium-grained, moderately sorted, moderately plastic, subangular, trace of black sand and shell fragments			
	52.0	CLAY, light tan, moderately plastic, gravel and cemented quartz and shell fragments becoming very plastic			
	54.0	Boring terminated at 54.0 feet			
281.4					
276.4					
271.4					
266.4					
261.4					
256.4					

REMARKS:
1. Drilling Technique: 0 to 54 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-12 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-12
LOGGED BY	AK	DATE STARTED	10/5/00
CHECKED BY	RNQ	DATE COMPLETED	10/6/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 336.8

C:\TK\GW-E13.PL3 TLC-1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
336.8	0.0	SAND, brown fine-medium	>0.5	SO E 13 (0-4)
	3.0	SANDY CLAY, red, stiff, sand content increases with depth, some black modules		
331.8				
326.8				
				SO E 13 (14-16)
321.8				
	17.0	CLAYEY SAND, red, some coarse sand (all quartz) estimated 50% fines, fairly cohesive, very fine to medium-grained		
316.8				
	21.0	SAND, red, slightly clayey, very fine to coarse		
	24.0	SAND, reddish-orange fine to coarse, slight fines, some very coarse grains quartz		
311.8				
	28.0	SAND, red and light orange to tan, fine to coarse quartz with some very coarse grains, little or no fines, subrounded to subangular		
306.8				
	33.0	SAND, Mostly light orange with some white fine to coarse quartz, trace dark grains and very coarse to gravel, subrounded to subangular sand, very loose		
301.8				
	37.0	SAND, light tan mottled with light orange and white, moderately coarse subangular to subrounded quartz grains, moderately well sorted, trace dark grains and very coarse, very loose, grading to orangish-brown fine to medium quartz SAND with some clay fragments, and very coarse quartz SAND, subrounded, some clear, some dark grains		SO E 13 (38-40)
296.8				

REMARKS:
1. Drilling Technique: 0 to 64 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-E-13 (0-4) = Soil sampled collected for laboratory analysis.
4. GW-E-13 (44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-13
LOGGED BY	AK	DATE STARTED	10/9/00
CHECKED BY	RNQ	DATE COMPLETED	10/9/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 336.8

C:\TK\GW-E13.PL3 TLC-1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SAMPLE POINT
296.8			
	43.0	CLAY, white claystone, stiff, non-plastic to a white sandy CLAY, laminated colors of black, gray, brown and light yellow	GW E 13 (44-48)
291.8	46.0	SAND, very fine to fine quartz; some medium to coarse quartz sand, some dark grains, some clay nodules and coarse sand lenses from grained 47' to 48'	GW E 13 (48-52)
	49.0	SAND, fine-medium; quartz; subrounded; brown and gray; some black grains; some coarse quartz; loose; little or no fines; moderately well sorted	
286.8			
281.8			GW E 13 (56-60)
276.8	60.0	CLAYEY FINE SAND; gray; some silt, laminated, very coarse, fossiliferous, white limestone, shell fragments, with silty matrix	
	61.0	Limestone, light gray, partially lithified, silty matrix, granular, some shell fragments and sand in matrix, grades with depth to CLAY, stiff, tan, some plasticity	
	64.0	Boring terminated at 64.0 feet	
271.8			
266.8			
261.8			
256.8			

REMARKS:
1. Drilling Technique: 0 to 64 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-E-13 (0-4) = Soil sampled collected for laboratory analysis.
4. GW-E-13 (44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-13
LOGGED BY	AK	DATE STARTED	10/9/00
CHECKED BY	RNQ	DATE COMPLETED	10/9/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 342.0

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
342.0	0.0	No soil samples collected.			
337.0					
332.0					
327.0					
322.0					
317.0					
312.0					
307.0					
302.0					

C:\TK\GW-E14.PL3 TLC-1 12-12-00

REMARKS:
1. Drilling Technique: 0 to 60 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-14 (48-52) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-14
LOGGED BY	CK	DATE STARTED	10/6/00
CHECKED BY	RNQ	DATE COMPLETED	10/6/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 342.0

C:\TK\GW-E14.PL3 TLC-1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
302.0					
297.0					GW-E14 (48-52)
292.0					GW-E14 (52-56)
287.0					GW-E14 (56-60)
282.0	60.0	CLAY; light tan.			
	60.0	Boring terminated at 60.0 feet.			
277.0					
272.0					
267.0					
262.0					

REMARKS:
1. Drilling Technique: 0 to 60 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-14 (48-52) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-14
LOGGED BY	CK	DATE STARTED	10/6/00
CHECKED BY	RNQ	DATE COMPLETED	10/6/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 344.3

C:\TK\GW-E15.PL3 TLC--1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
344.3	0.0	No soil samples collected 0 to 65 feet.			
339.3					
334.3					
329.3					
324.3					
319.3					
314.3					
309.3					
304.3					

REMARKS:
1. Drilling Technique: 0 to 65 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-15 (48-52) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-15
LOGGED BY	CK	DATE STARTED	10/11/00
CHECKED BY	RNQ	DATE COMPLETED	10/11/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 344.3

C:\TK\GW-E15.PL3 TLC-1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
304.3	40.0	No soil samples collected 0 to 65 feet.			
299.3					GW-E15 (48-52)
294.3					
289.3					GW-E15 (54-58)
284.3					GW-E15 (61-65)
279.3	65.0	Boring terminated at 65.0 feet.			
274.3					
269.3					
264.3					

REMARKS:
1. Drilling Technique: 0 to 65 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-15 (48-52) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-15
LOGGED BY	CK	DATE STARTED	10/11/00
CHECKED BY	RNQ	DATE COMPLETED	10/11/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 331.0

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
331.0	0.0	No soil samples collected 0 to 60 feet.			
326.0					
321.0					
316.0					
311.0					
306.0					
301.0					
296.0					
291.0					

C:\TK\GW-E16.PL3 TLC-1 11-22-00

REMARKS:
1. Drilling Technique: 0 to 61 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-16 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-16
LOGGED BY	CK	DATE STARTED	10/23/00
CHECKED BY	RNQ	DATE COMPLETED	10/23/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 331.0

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
291.0	40.0	No soil samples collected 0 to 60 feet.			GW-E16 (40-44)
286.0					
281.0					GW-E16 (50-54)
276.0					
					GW-E16 (57-61)
271.0					
	61.0	Boring terminated at 61.0 bgs at refusal in tan rigid clay.			
266.0					
261.0					
256.0					
251.0					

C:\TK\GW-E16.PL3 TLC-1 11-22-00

REMARKS:
1. Drilling Technique: 0 to 61 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-16 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-16
LOGGED BY	CK	DATE STARTED	10/23/00
CHECKED BY	RNQ	DATE COMPLETED	10/23/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 343.2

C:\TK\GW-E17.PL3 TLC-1 11-22-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
343.2	0.0	No soil samples collected from 0 to 79 feet.			
338.2					
333.2					
328.2					
323.2					
318.2					
313.2					
308.2					
303.2					

REMARKS:
1. Drilling Technique: 0 to 79 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-17 (48-52) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-17
LOGGED BY	CK	DATE STARTED	10/26/00
CHECKED BY	RNQ	DATE COMPLETED	10/26/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 343.2

C:\TK\GW-E17.PL3 TLC-1 11-22-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
303.2	40.0	No soil samples collected from 0 to 79 feet.			
298.2					GW-E17 (48-52)
293.2					
288.2					GW-E17 (55-59)
283.2					GW-E17 (62-66)
278.2					
273.2					
268.2					
263.2	79.0	Boring terminated at 79.0 bgs.			

REMARKS:
1. Drilling Technique: 0 to 79 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-16 (48-52) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-E-17
LOGGED BY	CK	DATE STARTED	10/26/00
CHECKED BY	RNQ	DATE COMPLETED	10/26/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 345.5

C:\TK\GW-E18.PL3 TLC-1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
345.5	0.0	No soil samples collected from 0 to 74 feet.			
340.5					
335.5					
330.5					
325.5					
320.5					
315.5					
310.5					
305.5					

REMARKS:
1. Drilling Technique: 0 to 74 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-18 (51-55) = Ground-water sample collected for laboratory analysis.

∵ Ground water level encountered during drilling.

DRILLED BY	ESN	BORING NUMBER	GW-E-18
LOGGED BY	CK	DATE STARTED	10/25/00
CHECKED BY	RNQ	DATE COMPLETED	10/25/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 345.5

C:\TK\GW-E18.PL3 TLC-1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
305.5	40.0	No soil samples collected from 0 to 74 feet.			
300.5					
295.5					GW-E18 (51-55)
290.5					
285.5					GW-E18 (60-64)
280.5					
275.5					GW-E18 (68-72)
	74.0	Boring terminated at 74.0 feet.			
270.5					
265.5					

REMARKS:
1. Drilling Technique: 0 to 74 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-18 (51-55) = Ground-water sample collected for laboratory analysis.

▽ Ground water level encountered during drilling.

DRILLED BY	ESN	BORING NUMBER	GW-E-18
LOGGED BY	CK	DATE STARTED	10/25/00
CHECKED BY	RNQ	DATE COMPLETED	10/25/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 346.4

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
346.4	0.0	No soil samples collected from 0 to 78.5 feet.			
341.4					
336.4					
331.4					
326.4					
321.4					
316.4					
311.4					
306.4					

C:\TK\GW-E19.PL3 TLC--1 12-12-00

REMARKS:
1. Drilling Technique: 0 to 78.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-19 (51-55) = Ground-water sample collected for laboratory analysis.

Ground-water level encountered during drilling.

DRILLED BY	ESN	BORING NUMBER	GW-E-19
LOGGED BY	CK	DATE STARTED	10/25/00
CHECKED BY	RNQ	DATE COMPLETED	10/25/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 346.4

C:\TK\GW-E19.PL3 TLC-1 12-12-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
306.4	40.0	No soil samples collected from 0 to 78.5 feet.			
301.4					
296.4					GW-E19 (51-55)
291.4					
286.4					GW-E19 (59-63)
281.4					
276.4					GW-E19 (70-74)
271.4					
266.4	78.5	Boring terminated at 78.5 at refusal.			

REMARKS:
1. Drilling Technique: 0 to 78.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. GW-E-19 (51-55) = Ground-water sample collected for laboratory analysis.

⏚ Ground-water level encountered during drilling.

DRILLED BY	ESN	BORING NUMBER	GW-E-19
LOGGED BY	CK	DATE STARTED	10/25/00
CHECKED BY	RNQ	DATE COMPLETED	10/25/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 341.1

C:\TK\SO-AOC11.PL3 TLC--1 12-13-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
341.1	0.5	6" concrete	31	SO-AOC 1-1 (0-2)
		SAND brown; fine, loose (subbase).		
	2.0	CLAY; sandy; stiff; red; some orange mottled; subangular to subrounded, fine to medium grained; dry.	42	
336.1				
			44	
331.1				
			310	
326.1				
	18.0	CLAYEY SAND; red, cohesive and friable; fine to medium; dry.	71	
321.1				
	21.0	SAND; red, slightly clayey; loose; fine to medium; some tan sand seams; dry.		
	24.0	SAND; orangish-red, fine to medium; moderately sorted; some coarse grains; very loose; dry; subangular to subrounded, less than 5% fines.	180	
316.1				
			>1,000	SO-AOC 1-1 (29-31)
311.1				
	32.0	SAND; yellow and light yellow; medium to coarse; poorly sorted; subrounded; very loose; less than 5% fines; quartz with some dark grains; dry.	770	
306.1				
			>1,000	SO-AOC 1-1 (38-40)
301.1				

REMARKS:
1. Drilling Technique: 0 to 62.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 1-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 1-1 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	SO-AOC 1-1
LOGGED BY	CK	DATE STARTED	10/31/00
CHECKED BY	RNQ	DATE COMPLETED	10/31/00
		JOB NUMBER	12000-0-2050.04

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

TEST BORING RECORD

DATUM ELEVATION: 341.1

C:\TKISO-AOC11.PL3 TLC-1 12-13-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SAMPLE POINT
301.1	40.0	SAND; yellow to light orange; medium to coarse; poorly sorted; subangular to subrounded; loose; quartz with dark grains; less than 5% fines; saturated at 41 feet.	GW-AOC 1-1 (40-44)
296.1	45.0	Interbedded medium to coarse SAND and CLAY; sand occurs in thin beds 2"-6" thick; is coarse, orange, and saturated. Clay occurs in thin beds is mottled white, tan orange with green and black; stiff and dry.	
	48.0	SAND; orange; medium to coarse; poorly sorted; subangular to subrounded; loose.	
291.1	50.0	CLAY; light green, orange, red, tan, dark gray and brown; sandy with thin sand seams; hard; moist; highly plastic and laminated; grading to clayey sand; wet.	GW-AOC 1-1 (52-56)
	52.0	SAND; grey; fine to coarse; poorly sorted; subangular to subrounded; very loose; quartz; dark grains common; saturated; trace silt.	
286.1			
			GW-AOC 1-1 (59-63)
281.1	60.0	CLAY; light greenish-gray; sandy; silty; soft; non-calcareous; dark grains; saturated; grading to MARL; calcareous clay matrix; fossiliferous; white; saturated.	
	62.0	CLAY; sandy soft; light greenish-gray; calcareous; moist.	
	62.5	Boring terminated at 62.5 feet at refusal.	
276.1			
271.1			
266.1			
261.1			

BORING DIAGRAM

OVA

REMARKS:
1. Drilling Technique: 0 to 62.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 1-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 1-1 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	SO-AOC 1-1
LOGGED BY	CK	DATE STARTED	10/31/00
CHECKED BY	RNQ	DATE COMPLETED	10/31/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 348.8

C:\TK\GW-AOC21.PL3 TLC-1 12-20-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
348.8	0.5	6" concrete	16	SO-AOC 2-1 (0-2)
		SAND, brown, fine, quartz, loose (subbase).		
	2.0	CLAY; red, light orange mottled, sandy, cohesive, dense, fine to medium occasionally coarse grained, rounded, noticeable odor.	<0	
343.8				
			<0	
338.8				
			<0	
333.8				
			<0	SO-AOC 2-1 (18-20)
328.8				
	21.0	CLAYEY SAND; red, orange mottling, fine to course, poorly sorted, cohesive but friable, clay present as matrix, sand is quartz.	<0	
323.8	25.0	SAND; red with orange mottled, slightly clayey, fine to coarse, poorly sorted, moderately loose, friable, clay present as matrix. Sand is quartz, black grains, dry.		
	29.0	SAND reddish-orange; fine to coarse, poorly sorted, loose, 45% fines.	<0	
318.8				
			<0	
313.8				
			0	SO-AOC 2-1 (38-40)
308.8				

REMARKS:

1. Drilling Technique: 0 to 67 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 2-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 2-1 (52-56) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 2-1
LOGGED BY	CK	DATE STARTED	10/17/00
CHECKED BY	RNQ	DATE COMPLETED	10/17/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 348.8

C:\TK\GW-AOC21.PL3 TLC-1 12-20-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SAMPLE POINT
308.8	41.0	SAND light orangish-brown; fine to coarse, quartz, poorly sorted, some dark grains.	GW-AOC 2-1 (42-46)
303.8	46.5	CLAY white, tan, orange, gray and black; slightly silty, hard concretions and large stone fragments, soft.	
298.8	49.5	SILT; gray, grading to white to dark gray, brittle fossil fragments that appear to be skeletal, grades to sandy CLAY, mottled yellow and brown, white and gray SAND.	GW-AOC 2-1 (52-56)
	53.0	SAND grayish-brown; slightly silty, fine to coarse, poorly sorted, subrounded, loose, dark grains.	
	54.0	CLAY black and gray; sandy, partly organic, soft with coarse sand interbeds.	
293.8	55.0	CLAYEY SAND; fine to coarse, mottled, yellow and brown, gray and black grades to SAND; fine to very coarse at 59', mottled, yellow, brown, gray and black, loose, poorly sorted, dark grains present.	
	57.0	SAND subrounded fine to coarse, poorly sorted, loose, light yellow with brown and gray mottled, dark grains common, slightly silty that increases with depth.	
288.8			GW-AOC 2-1 (62-66)
	64.5	SAND; slightly clayey, dark brown and light yellow, fine to medium grained, loose.	
283.8	65.0	MARL; limey silt with tan coarse limestone fragments, light gray fossiliferous, some quartz sand.	
	66.5	CLAY; limey, greenish-tan, dense, soft, black stringers.	
	67.0	Boring terminated at 67.0 feet	
278.8			
273.8			
268.8			

REMARKS:
1. Drilling Technique: 0 to 67 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 2-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 2-1 (52-56) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 2-1
LOGGED BY	CK	DATE STARTED	10/17/00
CHECKED BY	RNQ	DATE COMPLETED	10/17/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 341.2

C:\TK\GW-AOC31.PL3 TLC-1 12-13-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
341.2	0.5	6" concrete CLAYEY SAND orangish-brown; fine to medium; dry.	8	SO-AOC 3-1 (0-2)
	3.0	SANDY CLAY orange with orange mottles; dry; stiff; becoming more friable and more sandy with depth.	25	
336.2			30	
331.2			45	
326.2			33	
321.2	21.0	CLAYEY SAND; red; silty; friable; dense; fine grained.	18	
316.2	25.0	SAND medium orangish-yellow; slightly silty; moderately loose; fine to medium; poorly sorted; dry; some dark grains and coarse quartz SAND.	54	SO-AOC 3-1 (29-31)
311.2				
	34.0	SAND white; fine to coarse; with some very coarse clear quartz; very loose; poorly sorted; subangular to subrounded; becoming moist with depth.	14	
306.2			11	SO-AOC 3-1 (38-40)
301.2				GW-AOC 3-1 (40-44)

REMARKS:

1. Drilling Technique: 0 to 59 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 3-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 3-1 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 3-1
LOGGED BY	CK	DATE STARTED	10/30/00
CHECKED BY	RNQ	DATE COMPLETED	10/30/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 341.2

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
301.2	40.0	No samples collected from 40 to 59 feet.			GW-AOC 3-1 (40-44)
296.2					
291.2					GW-AOC 3-1 (50-54)
286.2					GW-AOC 3-1 (55-59)
	59.0	Boring terminated at 59.0 feet at refusal.			
281.2					
276.2					
271.2					
266.2					
261.2					

REMARKS:

1. Drilling Technique: 0 to 59 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 3-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 3-1 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 3-1
LOGGED BY	CK	DATE STARTED	10/30/00
CHECKED BY	RNQ	DATE COMPLETED	10/30/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 341.2

C:\TK\GW-AOC32.PL3 TLC-1 12-20-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
341.2	0.5	6" concrete SANDY CLAY; reddish-orange; light orange mottled; stiff.	50	SO-AOC 3-2 (0-2)
336.2	5.0	CLAYEY SAND; red with some light orange mottled; fine; dense; cohesive; friable; dry.	40	
331.2			>100	SO-AOC 3-2 (8-10)
326.2			54	
	19.0	SAND; reddish-orange; slightly clayey, fine; cohesive but friable; moderately dense; dry.	33	
321.2	21.0	SAND; reddish-orange; poorly sorted; fine to medium with some coarse grains; trace fines (5-10%); moderately loose; very friable; dry.		
316.2			25	
	27.0	SAND; light orange; fine to medium; moderately sorted; loose; dry; some coarse; clear quartz; some mica; < 5% fines.		
311.2			48	
306.2			45	
301.2			50	SO-AOC 3-2 (38-40)

REMARKS:

1. Drilling Technique: 0 to 63.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 3-2 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 3-2 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 3-2
LOGGED BY	CK	DATE STARTED	10/30/00
CHECKED BY	RNQ	DATE COMPLETED	10/30/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 341.2

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
301.2	40.0	SAND; orange and tan; fine to coarse; some coarse-grained clear quartz; moderately well sorted; very loose; some clay; dark grains common; saturated at 42 feet.			GW-AOC 3-2 (40-44)
296.2	46.0	CLAYSTONE; white, light orange and tan; some dark brown staining on small sand seams grading to. SAND at 46 feet.			GW-AOC 3-2 (48-49)
	49.0	SAND; dark brown; poorly sorted; fine to coarse; subrounded quartz; loose; wet.			
291.2	50.0	CLAY; light orange; silty; soft; wet.			
	51.0	CLAY; mottled white; light orange, dark brown and light green; hard; dry; black stain on sand seams; sandy in parts; laminated.			
286.2					
	57.0	SAND; mottled grey; yellow, orange, brown, and black; medium to coarse; subrounded; loose; moderately well sorted; laminated; trace silt; dark grains; saturated.			
281.2					GW-AOC 3-2 (60-63)
	62.0	MARL; white; partial lithification; fossiliferous; clay as matrix; sandy seams.			
	63.0	CLAY; light greenish-grey; very sandy.			
	63.5	Boring terminated at 63.5 feet at refusal.			
276.2					
271.2					
266.2					
261.2					

REMARKS:
1. Drilling Technique: 0 to 63.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 3-2 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 3-2 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 3-2
LOGGED BY	CK	DATE STARTED	10/30/00
CHECKED BY	RNQ	DATE COMPLETED	10/30/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 340.5

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
340.5	0.0	SAND; red, slightly silty fine grained, loose.	11	SO-AOC 8-1 (0-2)
	2.0	SANDY CLAY, red, cohesive, moderately stiff quartz sand is clear, fine to medium-grained, subangular	NA	
335.5	5.0	SANDY CLAY; red, very stiff, and cohesive, medium to coarse grained, subangular, some light orange stringers, dry; sand content increasing with depth; stiffness and cohesiveness decreasing with depth.	20	
330.5				
			40	SO-AOC 8-1 (14-16)
325.5				
	18.0	CLAYEY FINE SAND; red, cohesive, moderately stiff, friable, fine to medium-grained, clear and smoky quartz, subangular.	29	
320.5	21.0	SAND; orangish-red, slightly clayey, moderately loose, moderately sorted, very fine to medium grained, some coarse quartz, fines decreases with depth.	33	
315.5	26.0	SAND; orangish-yellow, fine to medium, moderately sorted, loose, subangular to subrounded, very slight fines, dark grains.	13	
310.5				
			25	
305.5				
			47	SO-AOC 8-1 (38-40)
300.5				

REMARKS:
1. Drilling Technique: 0 to 62 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 8-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 8-1 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 8-1
LOGGED BY	CK	DATE STARTED	10/10/00
CHECKED BY	RNQ	DATE COMPLETED	10/10/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 340.5

C:\TK\GW-AOC81.PL3 TLC-1 12-13-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
300.5	40.0	SAND; orange, fine to coarse, poorly sorted, subrounded, loose, some clay laminae at 41.5'; some dark grains, black staining at 41' bgs wet at 41 feet. Grading to interbedded sands and clayey sand (lt. green) and rock; some black staining and orange staining in bands in sand.			GW-AOC 8-1 (40-44)
295.5					
	49.0				GW-AOC 8-1 (49-53)
290.5		CLAY; light green mottled with black and orange; sandy, stiff, plastic, grading to clayey SAND; fine to medium, mottled, black to brownish black, orange, and light green, soft.			
	51.0	SAND; mottled, fine to medium, poorly sorted, subrounded, loose, increasing fines.			
	53.0	SAND; grey, mottled with brown and light yellow bands and black stains; medium to coarse, subrounded, loose, moderately well sorted; trace of silt throughout, some dark grains throughout.			
285.5					
					GW-AOC 8-1 (58-62)
280.5					
	61.0				
	62.0	LIMESTONE; skeletal, packstone, white, mollusk shells common top 4" matrix is clayey sand. 14" of limestone in a clayey matrix.			
		Boring terminated at 62.0 feet			
275.5					
270.5					
265.5					
260.5					

REMARKS:

1. Drilling Technique: 0 to 62 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 8-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 8-1 (40-44) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 8-1
LOGGED BY	CK	DATE STARTED	10/10/00
CHECKED BY	RNQ	DATE COMPLETED	10/10/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 340.9

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
340.9	0.0	CLAYEY SAND; red, fine, grades to CLAY, some light mottled, sandy, cohesive, stiff, clear, medium grained, angular, and subangular quartz.	6	SO-AOC 8-2 (0-2)
	2.0	CLAY; red, sandy, very stiff and cohesive, medium quartz, sand is angular to round.	10	
335.9			12	
330.9			22	
325.9			62	SO-AOC 8-2 (18-20)
320.9	21.0	CLAYEY SAND; red, fine grained, some cohesiveness, sand is subangular, quartz, clear and smoky, some medium grained, clay is present as matrix at about 50% of sample content, stiff but moderately friable, very dense.	18	
315.9				
	28.5	SAND; red, slightly clayey, poorly sorted, fine to course grained grading to SAND; yellow, white and tan, fine to medium grained, clear quartz, some dark grains, poorly sorted, subangular to subrounded.	5	
310.9				
	33.0	SAND; yellow, tan, light orange, poorly sorted, very fine to coarse grained, quartz, some clear quartz, trace dark grains, subangular to subrounded, very loose, some very fine mica. Some noticable moisture.	8	
305.9				
			14	SO-AOC 8-2 (38-40)
300.9				

REMARKS:
1. Drilling Technique: 0 to 60 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 8-2 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 8-2 (42-46) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 8-2
LOGGED BY	CK	DATE STARTED	10/12/00
CHECKED BY	RNQ	DATE COMPLETED	10/12/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 340.9

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
300.9	40.0	No soil samples collected from 40 to 60 feet.			GW-AOC 8-2 (42-46)
295.9					
290.9					GW-AOC 8-2 (50-54)
285.9					GW-AOC 8-2 (56-60)
280.9	60.0	Boring terminated at 60.0 feet.			
275.9					
270.9					
265.9					
260.9					

C:\TK\GW-AOC82.PL3 TLC--1 12-13-00

REMARKS:
1. Drilling Technique: 0 to 60 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 8-2 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 8-2 (42-46) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 8-2
LOGGED BY	CK	DATE STARTED	10/12/00
CHECKED BY	RNQ	DATE COMPLETED	10/12/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 340.0

C:\TK\GW-AOC91.PL3 TLC--1 12-20-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
340.0	0.0	SAND; brown; black and orange mottles; fine to medium grained; loose; clayey and dry.	<0	SO-AOC 9-1 (0-2)
	4.0	CLAY; red; sandy; plastic; soft.	40	SO-AOC 9-1 (4-6)
335.0	8.0	CLAY; red; stiff; some sand; sand is medium to coarse, clear quartz; one 7mm plinthite noted at 12 feet.	39	
330.0				
325.0			16	
	16.0	CLAY; sandy, clear and smoky quartz subrounded; clay is stiff and slightly plastic but mostly hard; concretions are common; black to dark purple, brittle; white and light orange mottles also common.	4	
320.0				
	22.0	CLAYEY SAND red mottled with white, gray and orange; fine to course; subrounded quartz; clay as matrix.		
	24.0	SAND; slightly clayey; orange; medium to coarse; poorly sorted; loose.	3	
315.0				
	28.0	SAND; red and orange with very clear subrounded quartz; some red coloration in bands.	3	
310.0				
305.0			6	SO-AOC 9-1 (34-36)
			4	
300.0				GW-AOC 9-1 (40-44)

REMARKS:

1. Drilling Technique: 0 to 62 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 9-1 (0-2) = Soil sample collected for laboratory analysis
4. GW-AOC 9-1 (40-44) = Ground-water sample collected for laboratory analysis.

▽ Ground water level encountered during drilling.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 9-1
LOGGED BY	CK	DATE STARTED	10/19/00
CHECKED BY	RNQ	DATE COMPLETED	10/19/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 340.0

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
300.0	40.0	SAND; orange with red band around clay laminae; fine to coarse; poorly sorted; loose; saturated.			GW-AOC 9-1 (40-44)
295.0					
290.0					GW-AOC 9-1 (50-54)
285.0					
280.0					GW-AOC 9-1 (58-62)
	62.0	Boring terminated at 62.0 feet.			
275.0					
270.0					
265.0					
260.0					

REMARKS:

1. Drilling Technique: 0 to 62 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 9-1 (0-2) = Soil sample collected for laboratory analysis
4. GW-AOC 9-1 (40-44) = Ground-water sample collected for laboratory analysis.

▽ Ground water level encountered during drilling.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 9-1
LOGGED BY	CK	DATE STARTED	10/19/00
CHECKED BY	RNQ	DATE COMPLETED	10/19/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

DATUM ELEVATION: 339.7

C:\TK\GW-AOC92.PL3 TLC--1 12-13-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
339.7	0.0	SAND; brown; loose with black clay; fine grained.	0	SO-AOC 9-2 (0-2)
	4.0	CLAY; sandy; red plastic; soft fine.	0	SO-AOC 9-2 (4-6)
334.7				
	8.0	CLAY; red; stiff with trace quartz sand; fine grained.		
329.7				
	13.0	CLAY; red; orange; stiff; fine sand; trace black sand; some mottling.		
324.7				
	16.0	CLAY; sandy; tan to orange; clay is stiff; fine sand; turning black to dark purple; brittle; moderately sorted.		
319.7				
	21.0	CLAYEY SAND; red mottled with white to gray and orange; fine grain sand.		
	24.0	SAND; orange to red; slightly clayey; poorly sorted; loose.		
314.7				
	28.0	SAND; red and orange; medium green with quartz; some black sand grains; poorly sorted.		
309.7				SO-AOC 9-2 (32-34)
	34.0	SAND; yellowish-orange, poorly sorted, medium grained; with clear quartz.		
304.7				
299.7				

REMARKS:
1. Drilling Technique: 0 to 64 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 9-2 (0-2) = Soil sample collected for laboratory analysis.
4. GW-AOC 9-2 (44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 9-2
LOGGED BY	CK	DATE STARTED	10/20/00
CHECKED BY	RNQ	DATE COMPLETED	10/20/00
		JOB NUMBER	12000-0-2050.04

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

TEST BORING RECORD

DATUM ELEVATION: 339.7

C:\TK\GW-AOC92.PL3 TLC-1 12-13-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	BORING DIAGRAM	OVA	SAMPLE POINT
299.7					
	44.0	No soil samples collected from 44 to 57 feet.			GW-AOC 9-2 (44-48)
294.7					
289.7					GW-AOC 9-2 (52-56)
284.7					
	57.0	SANDY CLAY; light tan; moderately plastic; poorly sorted; fine to gravel sized grains.			GW-AOC 9-2 (60-64)
279.7					
	64.0	Boring terminated at 64.0 feet at refusal.			
274.7					
269.7					
264.7					
259.7					

REMARKS:

1. Drilling Technique: 0 to 64 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 9-2 (0-2) = Soil sample collected for laboratory analysis.
4. GW-AOC 9-2 (44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 9-2
LOGGED BY	CK	DATE STARTED	10/20/00
CHECKED BY	RNQ	DATE COMPLETED	10/20/00
		JOB NUMBER	12000-0-2050.04

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

TEST BORING RECORD

DATUM ELEVATION: 332.8

C:\TK\GWAOC101.PL3 TLC-1 12-13-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	OVA	SAMPLE POINT
332.8	0.0	SAND; brown, fine to medium, moderately well sorted, loose, subangular to subrounded quartz, some dark grains.	<0	SO-AOC 10-1 (0-2)
	4.0	CLAY; red, light orange-brown mottled, sandy, dense, sand is a medium grained, clear, subangular to subrounded. Some black stringers becoming slightly sandy and more friable with depth.	<0	
327.8			<0	
322.8				
			8	
317.8				
			12	SO-AOC 10-1 (18-20)
312.8				
			11	
307.8	25.0	CLAYEY SAND; red, fine to coarse, quartz, subangular to subrounded, poorly sorted, friable but dense, clay present as matrix.		
	29.0	SAND; red, slightly clayey, fine to coarse grained, poorly sorted, loose, fines <10%-15%.	6	
302.8				
	34.0	SAND; yellow and tan, fine to coarse, poorly sorted, loose, subangular and subrounded quartz grains.	8	
297.8				
			24	SO-AOC 10-1 (38-40)
292.8				

REMARKS:

1. Drilling Technique: 0 to 64 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 10-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 10-1 (44-48) = Ground-water sample collected for laboratory analysis.

DRILLED BY	ESN	BORING NUMBER	GW-AOC 10-1
LOGGED BY	CK	DATE STARTED	10/12/00
CHECKED BY	RNQ	DATE COMPLETED	10/12/00
		JOB NUMBER	12000-0-2050.04

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

TEST BORING RECORD

DATUM ELEVATION: 332.8

C:\TK\GWAOC101.PL3 TLC-1 12-13-00

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SAMPLE POINT
292.8	41.0	SAND; mottled orange, brown, white and yellow, fine to medium subrounded, quartz, some clear, some dark grains, clay laminate, saturated.	
287.8			GW-AOC 10-1 (45-48)
	46.5	CLAYEY SAND; orange, laminated, white in clay matrix.	
	49.0	Rock, white, brittle, light green clay base to 48.5'.	
282.8	50.0	SAND with clay stringers to 49' grades to clay with rock fragments to 49.5' grades to SAND, laminated, silty, fine to medium grained, marked yellow, black, brown and gray, loose. Grades to CLAY; sandy, light green to orange, clayey SAND where orange.	GW-AOC 10-1 (53-56)
	54.0	SAND; slightly silty; fine to medium, subrounded loose, black, brown, gray and orange and yellow in bands.	
277.8			
	57.0	SAND; trace of silt, medium to coarse, subrounded, loose, dark grains, mottled gray, light yellow, brown and black.	
272.8			GW-AOC 10-1 (61-64)
	63.0		
	64.0	CLAYEY SAND with clay laminate; tan, clay as matrix grades to CLAY; calcereous, fossil fragments, tan, soft.	
267.8		Boring terminated at 64.0 feet	
262.8			
257.8			
252.8			

BORING DIAGRAM

OVA

REMARKS:

1. Drilling Technique: 0 to 64 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SO-AOC 10-1 (0-2) = Soil sampled collected for laboratory analysis.
4. GW-AOC 10-1 (44-48) = Ground-water sample collected for laboratory analysis.

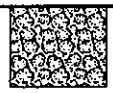
DRILLED BY	ESN	BORING NUMBER	GW-AOC 10-1
LOGGED BY	CK	DATE STARTED	10/12/00
CHECKED BY	RNQ	DATE COMPLETED	10/12/00
		JOB NUMBER	12000-0-2050.04

LAW
ENGINEERING AND ENVIRONMENTAL SERVICES

TEST BORING RECORD

DATUM ELEVATION: 324.97 ft

C:\TKLOG~1\HA-1.PT3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading	Sample Points
325.0		Red and light brown mottled clayey SILT.		5.8	HA-1 (0.4'-2.1')
	2.1	Boring terminated at 2.1 feet			
320.0					
315.0					
310.0					
305.0					
300.0					
295.0					
290.0					
285.0					

REMARKS:

1)Drilling technique: Three-inch diameter stainless steel handauger.

2)Boring grouted upon completion of sampling.

DRILLED BY	AAM	BORING NUMBER	HA-1
LOGGED BY	CMC	DATE STARTED	3/27/03
CHECKED BY	RNQ	DATE COMPLETED	3/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: 324.98 ft

C:\TKLLOG~1\HA-2.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading	Sample Points
325.0		Red and light brown mottled clayey SILT.		80.1	HA-2 (0.35'-2.1')
	2.1	Boring terminated at 2.1 feet			
320.0					
315.0					
310.0					
305.0					
300.0					
295.0					
290.0					
285.0					

REMARKS:

1)Drilling technique: Three-inch diameter stainless steel handauger.

2)Boring grouted upon completion of sampling.

DRILLED BY	AAM	BORING NUMBER	HA-2
LOGGED BY	CMC	DATE STARTED	3/27/03
CHECKED BY	RNQ	DATE COMPLETED	3/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: 324.97 ft

C:\TKLOG~1\HA-3.PL3 RRN--1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading	Sample Points
325.0		Red and light brown mottled clayey SILT.		1.4	HA-3 (0.4'-2.1')
	2.1	Boring terminated at 2.1 feet			
320.0					
315.0					
310.0					
305.0					
300.0					
295.0					
290.0					
285.0					

REMARKS:

1)Drilling technique: Three-inch diameter stainless steel handauger.

2)Boring grouted upon completion of sampling.

DRILLED BY	AAM	BORING NUMBER	HA-3
LOGGED BY	CMC	DATE STARTED	3/27/03
CHECKED BY	RNQ	DATE COMPLETED	3/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: 325.01 ft

C:\TKLLOG~1\HA-4.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading	Sample Points
325.0		Red and light brown mottled clayey SILT.		4.9	HA-4 (0.4'-1.9')
	2.0	Boring terminated at 1.9 feet			
320.0					
315.0					
310.0					
305.0					
300.0					
295.0					
290.0					
285.0					

REMARKS:

1)Drilling technique: Three-inch diameter stainless steel handauger.

2)Boring grouted upon completion of sampling.

DRILLED BY	AAM	BORING NUMBER	HA-4
LOGGED BY	CMC	DATE STARTED	3/27/03
CHECKED BY	RNQ	DATE COMPLETED	3/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: 325.03 ft

C:\TKLOG~1\HA-5.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading	Sample Points
325.0		Light brown coarse sandy SILT.		12.7	HA-5 (0.4'-2.2')
	2.2	Boring terminated at 2.2 feet			
320.0					
315.0					
310.0					
305.0					
300.0					
295.0					
290.0					
285.0					

REMARKS:

1)Drilling technique: Three-inch diameter stainless steel handauger.

2)Boring grouted upon completion of sampling.

DRILLED BY	AAM	BORING NUMBER	HA-5
LOGGED BY	CMC	DATE STARTED	3/27/03
CHECKED BY	RNQ	DATE COMPLETED	3/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: 325.02 ft

C:\TKLOG~1\HA-6.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading	Sample Points
325.0		Concrete and asphalt		25.3	HA-6 (1.2'-2.0')
	1.2	Red clayey SILT			
	2.0	Boring terminated at 2.0 feet			
320.0					
315.0					
310.0					
305.0					
300.0					
295.0					
290.0					
285.0					

REMARKS:

1)Drilling technique: Three-inch diameter stainless steel handauger.

2)Boring grouted upon completion of sampling.

DRILLED BY	AAM	BORING NUMBER	HA-6
LOGGED BY	CMC	DATE STARTED	3/27/03
CHECKED BY	RNQ	DATE COMPLETED	3/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: 325.00 ft

C:\TKLLOG~1\HA-7.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading	Sample Points
325.0		Concrete and asphalt		3.0	
		Red and brown micaceous mottled silty SAND.		5.1	HA-7 (3'-5')
	3.2				
	3.5	Red CLAY			
320.0	5.0	Boring terminated at 5.0 feet			
315.0					
310.0					
305.0					
300.0					
295.0					
290.0					
285.0					

REMARKS:

1)Drilling technique: Three-inch diameter stainless steel handauger.

2)Boring grouted upon completion of sampling.

DRILLED BY	AAM	BORING NUMBER	HA-7
LOGGED BY	CMC	DATE STARTED	3/27/03
CHECKED BY	RNQ	DATE COMPLETED	3/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: 325.02 ft

C:\TKLOG~1\HA-8.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading	Sample Points
325.0	0.5	Concrete and asphalt 0 to 0.3 feet. Fill soil 0.3 to 0.5 feet. Boring terminated at 0.5 feet		255	HA-8 (0-0.5')
320.0					
315.0					
310.0					
305.0					
300.0					
295.0					
290.0					
285.0					

REMARKS:

1)Drilling technique: Three-inch diameter stainless steel handauger.

2)Boring grouted upon completion of sampling.

DRILLED BY	AAM	BORING NUMBER	HA-8
LOGGED BY	CMC	DATE STARTED	3/27/03
CHECKED BY	RNQ	DATE COMPLETED	3/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser -0.4 ft
Top of casing elevation 320.23 ft

C:\TKLLOG~1\TKPLOT~1\SB101.PL3 RRN-1 12-11-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
320.6	0.0	Dark brown to dark gray silty fine to medium SAND.	1.1	SB-101 (0-2 ft)
	0.8	Brown-red slightly clayey silty fine to medium SAND.	2.4	
315.6	5.5	Brown-red sandy very silty CLAY.	18.3	
			5.0	
			11.8	
310.6			21.5	
	13.5	Brown-red silty CLAY.	2617.0	SB-101 (12-14 ft)
305.6			41.7	
			68.5	
	19.0	Brown-red silty very clayey fine to medium SAND.	828.0	
300.6			77.2	
			24.8	
295.6			21.1	
	26.5	Red to orange slightly clayey silty fine SAND with medium grains.	17.8	
	27.5	Light yellow, light orange, light gray very slightly silty very fine to fine SAND.	10.9	
290.6			9.0	
			18.1	
285.6			17.6	
	36.0	Light gray, clear, light orange fine SAND with some medium grains, slightly moist at 36.0 feet, saturated at 38.0 feet.	16.4	SB-101 (36-38 ft)
280.6				

WELL DIAGRAM

REMARKS:
1. Drilling Technique: 0 to 58.0 feet using 6-inch rotosonic drilling.
2. 2-inch Schedule 40 PVC well with 10 feet of 0.01-inch slot screen and riser.
3. SB-101 (0-2 ft), (12-14 ft), and (36-38 ft) soil samples collected for laboratory analysis.
4. ⏚ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-101/MW-7
DATE STARTED 2/6/03
DATE COMPLETED 2/6/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser -0.4 ft
Top of casing elevation 320.23 ft

C:\TKLLOG~1\TKPLOT~1\SB101.PL3 RRN-1 12-11-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
280.6	40.0	Light orange slightly silty fine to medium SAND.			
	41.5	Orange very clayey fine to coarse SAND with limestone fragments.			
275.6	44.5	Light yellow very clayey fine SAND.			
	46.5	Dark brown to dark gray with light yellow slightly silty fine SAND with some medium grains.			
270.6	50.0	Light gray with some dark gray very slightly silty very fine to fine SAND.			
	53.5	Light gray to white to light yellow clayey very silty fine SAND with medium grains and small limestone fragments.			
265.6	55.5	Very light gray sandy CLAY to pure CLAY.			
	58.0	Boring terminated at 58.0 feet.			
260.6					
255.6					
250.6					
245.6					
240.6					

REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-101/MW-7
DATE STARTED 2/6/03
DATE COMPLETED 2/6/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 323.17 ft

C:\TKLLOG~1\TKPLOT~1\SB102.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
323.2	0.0	Dark brown to dark gray slightly silty very fine to fine SAND.	0	
			0	SB-102 (0-2 ft)
	3.0	Brownish-red slightly clayey silty very fine to fine SAND.	0	
			0.1	
			80.2	
317.5			5.0	SB-102 (5-6 ft)
			0	
			0	
			0	
			0	
311.9			75.7	
			16.1	
			0	
			1.8	
			77.6	
			15.7	
306.3			66.3	
			15.2	
			0	
			0	
			22.7	
300.7			0	
	23.5	Orange-brown slightly silty very fine to fine SAND with some medium to coarse grains.	0	
			0	
			0	
	26.8	Yellow to yellow-brown very slightly silty fine SAND.	0	
295.0			0	
	28.7	Light gray, white, yellow slightly micaceous silty very fine to fine SAND.	0	
	30.3	Light gray, pink, white, yellow very fine to fine SAND.	NR	
			0	
			0	
			0	
289.4			NR	
			0	
	36.0	Light gray very fine to fine SAND, wet at 37.5 feet.	0	SB-102 (35-36 ft)
			0	
			0	
			0	
283.8			0	
	40.0			
	41.0	Light brown very slightly silty fine to medium SAND, saturated.		
		Boring terminated at 41.0 feet.		
278.2				

WELL DIAGRAM:

REMARKS:
1. Drilling Technique: 0 to 41 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-102 (0-2 ft), (5-6 ft) and (35-36 ft) = soil samples collected for laboratory analysis.
4. NR = no reading
5. ⏚ water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	SB-102
DATE STARTED	1/21/03
DATE COMPLETED	1/21/03
JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser -0.37 ft
Top of casing elevation 329.70 ft

C:\TKLOG~1\TKPLOT~1\SB103.PL3 RRN--1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
330.1	0.0	Brown silty fine SAND.	1.8	SB-103 (0-2 ft)
	2.5	Orange-brown silty very clayey fine SAND.	13.0	
325.1	5.5	Brown to red silty sandy to very silty very sandy CLAY.	164.0	
			502.0	
			32.6	
320.1			23.7	
			10.3	
315.1			5.3	
			9.1	
			60.3	
310.1			66.2	
			441.0	
305.1			45.0	
			579.0	SB-103 (26-28 ft)
			402.0	
300.1	30.0	Brown to red very silty clayey fine SAND.	394.0	
			379.0	
295.1	34.5	Light orange, light gray slightly silty very fine to fine SAND.	369.0	
			361.0	
290.1			412.0	

REMARKS:
1. Drilling Technique: 0 to 72.0 feet using 6-inch rotosonic drilling.
2. 2-inch Schedule 40 PVC well with 10 feet 0.01-inch slot screen and riser.
3. SB-103 (0-2 ft), (26-28 ft), and (46-48 ft) soil samples collected for laboratory analysis.
4. ▽ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	SB-103/MW-8
DATE STARTED	2/6/03
DATE COMPLETED	2/6/03
JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser -0.37 ft
Top of casing elevation 329.70 ft

C:\TKLOG~1\TKPLOT~1\SB103.PL3 RRN--1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
290.1				362.0	
				389.0	
	44.0	Light yellow to light orange to light brown very slightly silty fine to medium SAND, saturated at 46.0 feet.		388.0	
285.1					SB-103 (46-48 ft)
	48.5	White CLAY, dry.			
280.1	50.0	Light brown silty clayey fine to medium SAND and limestone fragments.			
	54.0	Light to dark brown to yellow sandy CLAY to very clayey very fine to fine SAND, wet.			
275.1					
	59.0	Gray, brown to light yellow very slightly silty very fine to fine SAND with some medium grains.			
270.1					
265.1					
	66.5	Light gray to gray to white clayey silty fine to coarse SAND with limestone fragments, saturated.			
	69.5	Very light gray sandy CLAY to pure CLAY, dry.			
260.1					
	72.0	Boring terminated at 72.0 feet.			
255.1					
250.1					

REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-103/MW-8
DATE STARTED 2/6/03
DATE COMPLETED 2/6/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 331.10 ft

C:\TKLLOG~1\TKPLOT~1\SB104.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
331.1	0.0	Brown to light brown very slightly silty fine SAND.	0	
	1.3	Brown-red very slightly clayey to clayey silty very fine to fine SAND.	0	SB-104 (0-2 ft)
	5.0		2.0	
324.9		Brown-red to dark red sandy very silty CLAY.	0.4	
			7.1	
		Red very slightly silty fine SAND with some medium grains.	0.2	
			12.3	
318.6			0.2	
			18.6	
			20.0	
			31.2	
312.4			0.8	
			49.0	
	22.5		144.0	SB-104 (21-22 ft)
		Brown-red very clayey very silty fine SAND.	23.0	
306.1	25.5		58.4	
		Brown-red slightly clayey silty fine SAND.	53.0	
	28.7		67.1	
		Red very slightly silty fine SAND with some medium grains.	19.5	
299.9			0.3	
			22.5	
293.6			131.0	
			2.6	
			44.0	SB-104 (40-42 ft)
287.4			0	
			0	
			0	
			0	
	47.0		0	
	48.0	Light gray to light yellow fine to medium SAND, saturated at 47.0 feet.		
281.1		Boring terminated at 48.0 feet.		

REMARKS:
1. Drilling Technique: 0 to 48 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-104 (0-2 ft), (21-22 ft) and (40-42 ft) soil samples collected for laboratory analysis.
4. ⏚ Water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-104
DATE STARTED 1/21/03
DATE COMPLETED 1/21/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 324.31 ft

C:\TKLLOG~1\TKPLOT~1\SB105.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
324.3	0.3	Asphalt.	1.8	SB-105 (0-2 ft)
	0.6	Aggregate.		
		Brown-red slightly clayey very sandy SILT.	0.2	
	4.0	Brown-red very silty very sandy CLAY.	4.3	
318.7			0	
			4.6	
			0	
313.1			27.1	
	12.0	Brown-red very clayey very silty fine SAND.	23.8	SB-105 (11-12 ft)
			14.2	
	16.0	Brown-red clayey to silty fine SAND with some medium to coarse grains.	9.9	
307.4			7.9	
			10.3	
			7.8	
301.8			2.3	
	24.8	Orange and yellow and light gray very fine to fine SAND with medium grains.	3.6	
			3.7	
296.2			0.1	
			0.4	
290.6			64.8	
			82.0	SB-105 (37-38 ft)
	39.0	Yellow, yellow-orange, light gray fine to medium SAND, saturated at 40.6 feet.	21.2	
284.9				
	42.0	Boring terminated at 42.0 feet.		
279.3				

REMARKS:
1. Drilling Technique: 0 to 42 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-105 (0-2 ft), (11-12 ft) and (37-38 ft) soil samples collected for laboratory analysis.
4. ▽ Water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	SB-105
DATE STARTED	1/22/03
DATE COMPLETED	1/22/03
JOB NUMBER	12000-0-2050

TEST BORING RECORD

Datum elevation 331.48 ft

C:\TKLLOG~1\TKPLOT~1\SB106.PL3 RRN--1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
331.5	1.0	Brown silty fine SAND.		
		Red-brown clayey very silty very fine to fine SAND.	0.8	SB-106 (0-2 ft)
			0.1	
326.5	5.2		0.2	
		Brown-red slightly silty to silty sandy CLAY.	0.2	
			0.4	
321.5			0	
			0.1	
			0.1	
			0.5	
316.5			0	
			0	
			0	
311.5	20.4		0	
		Brown-red silty very sandy CLAY.	0.2	
			0.1	
306.5	25.2		0.3	
		Orange-red to light orange silty very clayey fine to medium SAND.	0.2	
			0.8	
301.5				SB-106 (29-30 ft)
			0.1	
			0.2	
	32.8			
		Light brown, brown, white, light orange, light yellow, yellow very slightly silty fine to medium SAND.	0.5	
296.5			0.4	
			0.6	
			0.3	
291.5			0.4	

REMARKS:
1. Drilling Technique: 0 to 46 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-106 (0-2 ft), (29-30 ft) and (42-43 ft) soil samples collected for laboratory analysis.
4. ▽ Water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-106
DATE STARTED 1/23/03
DATE COMPLETED 1/23/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 331.48 ft

C:\TKLLOG~1\TKPLOT~1\SB106.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
291.5				0.4	
				1.0	
	42.6	Light gray fine SAND with some medium grains.		1.1	SB-106 (42-43 ft)
286.5	45.0			0.2	
	46.0	Orange to light gray very slightly silty fine to medium SAND, moist at 45.8 feet.		0.2	
		Boring terminated at 46.0 feet.			
281.5					
276.5					
271.5					
266.5					
261.5					
256.5					
251.5					

REMARKS:

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-106
DATE STARTED 1/23/03
DATE COMPLETED 1/23/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser -0.41 ft
Top of casing elevation 323.09 ft

C:\TKLLOG~1\TKPLOT~1\SB107.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
323.5	0.0	Brown to red silty very sandy CLAY.	197.0	SB-107 (0-2 ft)
			NR	
318.5			180.0	
			160.0	
			152.0	
313.5			285.0	
			134.0	
308.5			642.0	SB-107 (14-16 ft)
	16.5	Brown to red with yellow and white silty sandy CLAY.	85.8	
			96.1	
303.5			76.2	
			35.4	
298.5			23.2	
			NR	
	29.0	Yellow, brown, light red clayey silty fine to medium SAND.	91.2	
293.5			204.0	
	33.0	Yellow to red silty fine to medium SAND.	514.0	
288.5			258.0	
			154.0	
283.5			184.0	SB-107 (38-40 ft)

REMARKS:
1. Drilling Technique: 0 to 69.0 feet using 6-inch rotosonic drilling.
2. 2-inch Schedule 40 PVC well with 10 feet 0.01-inch slot screen and riser.
3. SB-107 (0-2 ft), (14-16 ft), and (38-40 ft) soil samples collected for laboratory analysis.
4. NR = no reading
5. ▽ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

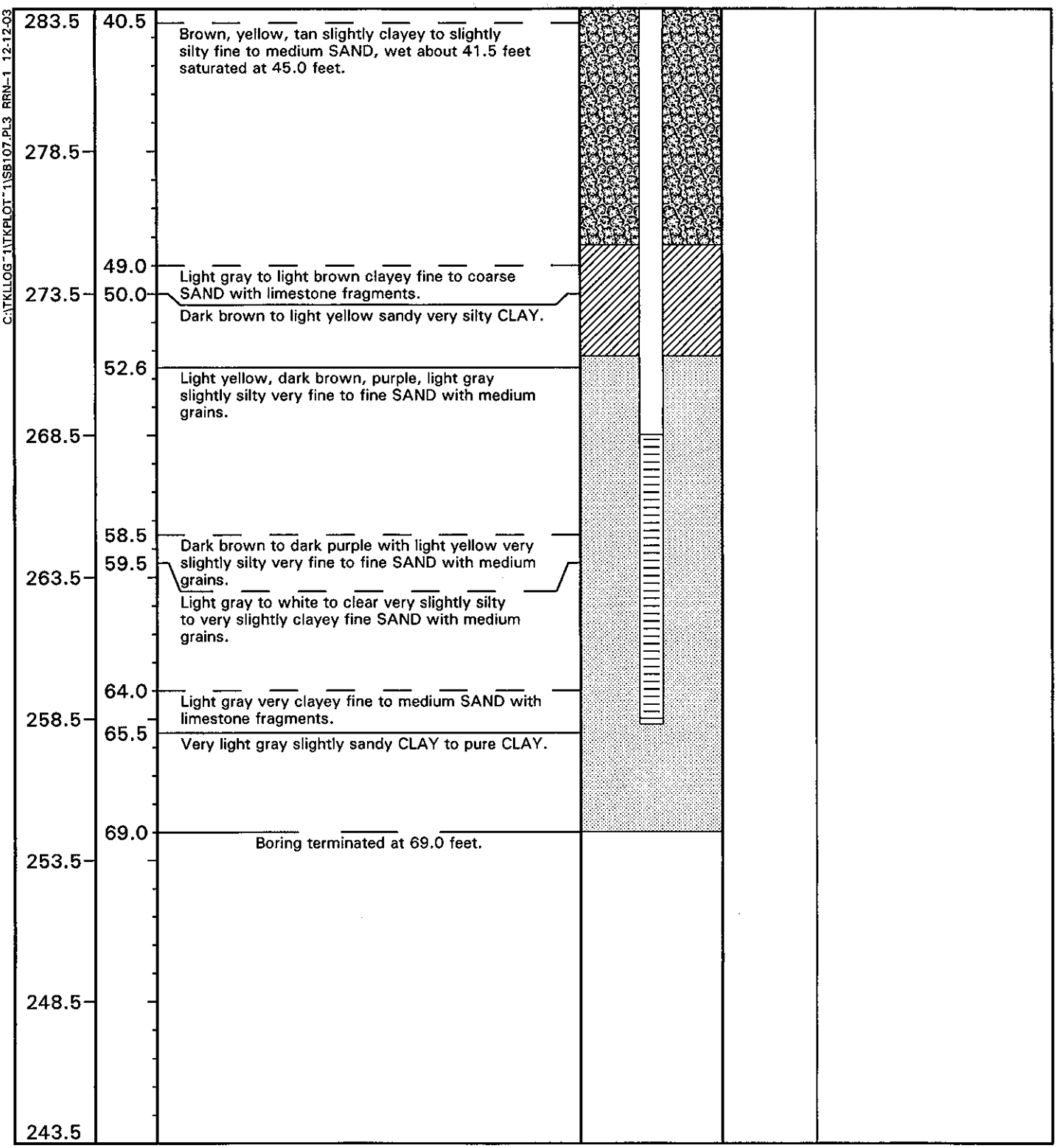
BORING NUMBER	SB-107/MW-9
DATE STARTED	2/10/03
DATE COMPLETED	2/10/03
JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser -0.41 ft
Top of casing elevation 323.09 ft

C:\TKLOG~1\TKPLOT~1\SB107.PL3 RRN-1 12-12-03



REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-107/MW-9
DATE STARTED 2/10/03
DATE COMPLETED 2/10/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 328.54 ft

C:\TKLOG~1\TKPLOT~1\SB108.PL3 RRN-1 12-11-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
328.5	0.0	Dark brown clayey silty fine to medium SAND with some aggregate.		SB-108 (0-2 ft)
	0.8	Brown to red silty very clayey fine SAND with some medium grains.	0.1	
			0.2	
323.5			0.0	
	8.1	Gray to brown slightly silty fine SAND.	0.3	
	9.4	Brown to red silty very sandy to sandy CLAY.	1.1	
318.5			0.3	
			1.4	
			0.6	
313.5			0.6	
			0.0	
			1.9	
308.5			0.2	
			0.4	
			0.3	
	24.0	Brown to red silty very clayey fine SAND with some medium grains.	8.7	
303.5			0.3	
	27.4	Brown-red, brown-yellow, red, brown silty clayey fine to medium SAND.	14.5	
			10.6	SB-108 (29-30 ft)
298.5			31.4	
			4.8	
	32.7	Brown, yellow, brown-red, light gray slightly silty to very slightly silty fine to medium SAND with some coarse grains.	7.9	
293.5			4.7	
			28.5	
			5.3	
288.5	39.6	Brown-red, light yellow, light gray and clear slightly clayey fine to medium SAND with coarse grains.	2.1	

REMARKS:
1. Drilling Technique: 0 to 50.0 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-108 (0-2 ft), (29-30 ft), and (45-46 ft) soil samples collected for laboratory analysis.
4. ⌵ Water level encountered during drilling.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-108
DATE STARTED 1/24/03
DATE COMPLETED 1/24/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 328.54 ft

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
288.5	40.7	Light yellow to light gray fine to medium SAND.		3.7 0.9	
	43.0	Light gray, brown, light brown, light yellow very fine to fine SAND.		3.2	
283.5	45.3	Light gray to light yellow fine to medium SAND, wet at 48.0 feet.		0.6 8.3	SB-108 (45-46 ft)
	49.0	Light yellow CLAY with soft limestone fragments.			
278.5	50.0	Boring terminated at 50.0 feet.			
273.5					
268.5					
263.5					
258.5					
253.5					
248.5					

C:\TKLLOG~1\TKPLOT~1\SB108.PL3 RRN--1 12-11-03

REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-108
DATE STARTED 1/24/03
DATE COMPLETED 1/24/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 306.97 ft

C:\TKLLOG~1\TKPLOT~1\SB109.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
307.0	0.8	Dark brown to brown slightly clayey very silty fine SAND.	1.1	SB-109 (0-2 ft)
		Brown-red silty sandy to very sandy CLAY.	0.2	
302.0			1.0	
			0	
			1.6	
297.0			0.3	
	11.5	Brown-red clayey silty fine SAND.	21.6	SB-109 (11-12 ft)
	14.5	Light orange to orange-red very slightly silty fine SAND with some medium grains.	20.4	
292.0			6.6	
			3.5	
			4.2	
287.0	19.8			
	20.7	Light orange very slightly silty very fine to fine SAND.	5.3	
		Light gray, white, light yellow fine SAND with some medium grains.	7.0	
282.0			5.8	
	26.4	Orange, light yellow, light gray very slightly silty fine to medium SAND.	4.1	SB-109 (27-28 ft)
	28.2	Light yellow to white mottled CLAY with soft limestone fragments, moist to wet.	1.3	
277.0	29.8	Light brown, light gray, light yellow slightly silty fine to medium SAND, saturated.	3.2	
	33.0	Boring terminated at 33.0 feet.		
272.0				
267.0				

WELL DIAGRAM: ▽

REMARKS:
1. Drilling Technique: 0 to 33 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-109 (0-2 ft), (11-12 ft) and (27-28 ft) soil samples collected for laboratory analysis.
4. ▽ Water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	SB-109
DATE STARTED	1/23/03
DATE COMPLETED	1/23/03
JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser 2.38 ft
Top of casing elevation 310.05 ft

C:\TKLLOG~1\TKPLOT~1\SB110.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
307.7	0.0	Brown slightly clayey fine to medium SAND, very wet.	270.0	SB-110 (0-2 ft)
	3.0	Brown-red silty very sandy to sandy CLAY, slightly moist.	182.0	
302.7			184.0	SB-110 (4-6 ft)
			134.0	
			57.4	
297.7			96.2	
			41.7	
292.7			29.3	
	17.0	Orange, light orange, light brown, light gray very fine to fine SAND with some medium grains, very moist at 23 feet.	22.3	
			10.0	
287.7			17.3	
			15.3	
282.7	25.0	Light orange fine to medium SAND very moist.	13.3	
			14.7	
			11.0	
277.7				
	31.0	Orange to white very sandy to slightly sandy CLAY.	18.4	
			11.3	SB-110 (32-34 ft)
	34.0	Light orange, gray, light gray slightly silty fine to medium SAND, very moist at 34 feet, wet at 36 feet.		
272.7				
	38.0	Light gray very fine to fine SAND some medium grains, wet.		
267.7				

REMARKS:
1. Drilling Technique: 0 to 49.5 feet using 6-inch rotosonic drilling.
2. 2-inch Schedule 40 PVC well with 10 feet 0.01-inch slot screen and riser.
3. SB-110 (0-2 ft), (4-6 ft), and (32-34 ft) soil samples collected for laboratory analysis.
4. ⏚ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	SB-110/MW-10
DATE STARTED	2/10/03
DATE COMPLETED	2/10/03
JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser 2.38 ft
Top of casing elevation 310.05 ft

C:\TKLOG~1\TKPLOT~1\SB110.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
267.7	40.5	Light gray very clayey fine SAND.			
	42.0	Light gray fine to very coarse SAND with poorly sorted limestone fragments (fossiliferous), saturated.			
262.7	44.5	Very light gray slightly sandy to pure CLAY, dry.			
257.7	49.5	Boring terminated at 49.5 feet.			
252.7					
247.7					
242.7					
237.7					
232.7					
227.7					

REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-110/MW-10
DATE STARTED 2/10/03
DATE COMPLETED 2/10/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 315.37 ft

C:\TKLOG~1\TKPLOT~1\SB111.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
315.4				
	1.5	Brown-red silty sandy CLAY with some aggregate.	0.5	SB-111 (0-2 ft)
		Brown-red silty sandy CLAY.		
	4.0	Brown-red silty very clayey fine SAND.	0	
310.4			2.2	
			2.4	
305.4			0	
			0	
			5.4	
300.4			3.8	
	15.8		1.5	
		Brown-red slightly clayey very silty fine SAND with some medium grains.	0	
			17.1	
295.4			10.6	
			22	SB-111 (21-22 ft)
	22.6	Light yellow, light gray, white, light orange very slightly silty very fine to fine SAND.	1.3	
290.4			8.6	
	26.5	Light gray fine SAND with some medium grains.	4.0	
			7.2	
285.4			6.4	
			18.8	SB-111 (32-33 ft)
	33.2			
	33.6	Brown fine to medium SAND.		
280.4		Light gray to light brown very fine to fine SAND, saturated at 34.3 feet.	1.8	
	36.0			
	37.0	Light yellow and white mottled CLAY with soft limestone fragments.		
		Boring terminated at 37.0 feet.		
275.4				

REMARKS:
1. Drilling Technique: 0 to 37 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-111 (0-2 ft), (21-22 ft) and (32-33 ft) soil samples collected for laboratory analysis.
4. ▽ Water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	SB-111
DATE STARTED	1/22/03
DATE COMPLETED	1/22/03
JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Datum elevation 322.81 ft

C:\TKLLOG~1\TKPLOT~1\SB112.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
322.8		Dark brown slightly silty fine SAND.		
	1.8		0.5	SB-112 (0-2 ft)
	2.3	Red-brown clayey silty fine SAND.		
		Brown-red silty sandy CLAY.	0.1	
317.2			0.1	
			0.2	
			0.6	
311.6			0.4	
			2.4	
			0.6	
			12.7	
305.9			8.6	
			57.9	SB-112 (18-19 ft)
	20.5		40.3	
		Brown-red to yellow very slightly clayey slightly silty fine to medium SAND.	20.4	
300.3			2.1	
			45.7	
			32.1	
294.7	28.7		25.8	
		Light gray, light yellow, white, pink very fine to fine SAND with some medium grains.	20.6	
			15.9	
289.1	33.3		20.1	
		Pink, light yellow, light gray very fine to medium SAND.	1.1	
			5.1	
283.4			7.5	SB-112 (38-39 ft)
	40.0			
	41.0	Orange slightly silty fine to medium SAND, saturated at 40.2 feet.	31.1	
		Boring terminated at 41.0 feet.		
277.8				

REMARKS:
1. Drilling Technique: 0 to 41 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-112 (0-2 ft), (18-19 ft) and (38-39 ft) soil samples collected for laboratory analysis.
4. ▽ Water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-112
DATE STARTED 1/23/03
DATE COMPLETED 1/23/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 321.64 ft

C:\TKLOG~1\TKPLOT~1\SB113.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
321.6		Brown-red very sandy silty CLAY, moist.	141	SB-113 (0-2 ft)
			87.2	
316.6			57.0	SB-113 (4-6 ft)
			52.2	
	8.5	Dark brown to gray slightly clayey slightly silty fine SAND with medium grains.	7.9	
311.6	10.0	Brown-red clayey silty to very silty fine SAND with medium grains.	21.1	
			41.3	
306.6			24.8	
			27.6	
			35.4	
301.6			39.6	
			NR	
296.6			NR	
			NR	
			NR	
	29.5	Brown very slightly clayey slightly silty fine to medium SAND.		
291.6			54.1	
			52.6	
	34.0	Light brown, clear, light brown, light gray very slightly silty fine to medium SAND with some coarse grains, saturated at 42.0 feet.		
286.6			28.2	
			31.8	
281.6			51.8	

REMARKS:
1. Drilling Technique: 0 to 78.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-113 (0-2 ft), (4-6 ft) and (40-42 ft). soil samples collected for laboratory analysis, uppermost (43.5-47.5 ft) and Twiggs (57-62 ft), groundwater samples collected for laboratory analysis. 4. ⌵ Water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-113
DATE STARTED 2/3/03
DATE COMPLETED 2/5/03
JOB NUMBER 12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Datum elevation 321.64 ft

C:\TK\LOG~1\TKPLOT~1\SB113.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
281.6				36.1	SB-113 (40-42 ft)
276.6	45.0	Light brown to dark brown clayey very fine to medium SAND.			SB-113 Uppermost (43.5-47.5 ft)
271.6	49.5	Light gray to white very slightly silty fine SAND with medium grains.			
266.6					
	57.0	White very clayey fine to very coarse SAND with sandstone and limestone fragments.			SB-113 Twiggs (57-62 ft)
	59.0	Very light gray slightly sandy to pure CLAY.			
261.6					
256.6					
	69.5	Blue-gray CLAY.			
251.6	70.5	Blue-gray sandy CLAY.			
	73.0	Blue-gray very clayey fine to medium SAND.			
246.6					
	76.5	Blue-gray slightly clayey silty fine to medium SAND, dry.			
	77.5	Blue-gray very clayey fine to medium SAND with coarse grains.			
	78.5	Boring terminated at 78.5 feet.			
241.6					

REMARKS:

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-113
DATE STARTED 2/3/03
DATE COMPLETED 2/5/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 324.70 ft

C:\TKLOG~1\TKPLOT~1\SB114.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
324.7	0.0	Asphalt	27.7	SB-114 (0-2 ft)
	0.5	Brown-red clayey fine SAND with some medium grains.	25.3	
319.7			28.3	
	6.0	Brown-red very silty very sandy CLAY.	32.6	
			39.4	
314.7			45.7	
			44.0	
309.7			47.9	
			72.5	
			69.3	
304.7			55.8	
			86.1	SB-114 (22-24 ft)
	24.5	Brown-red to orange slightly clayey silty fine to medium SAND with some coarse grains.	41.1	
299.7			43.1	
			17.8	
294.7			40.9	
	30.5	White, light gray, light orange, light yellow, very slightly silty fine to medium SAND.	39.6	
	34.0	Light gray to light orange very fine to fine SAND with some medium grains, very moist at 38.0 feet.	28.3	
289.7			34.1	
			24.5	
284.7				

REMARKS:
1. Drilling Technique: 0 to 78.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-114 (0-2 ft), (22-24 ft) and (42-44 ft) soil samples obtained for laboratory analysis, uppermost (45-48 ft) and Twiggs (60-65 ft) ground-water samples collected for laboratory analysis.
4. ▽ Water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-114
DATE STARTED 2/5/03
DATE COMPLETED 2/6/03
JOB NUMBER 12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Datum elevation 324.70 ft

C:\TKLOG~1\TKPLOT~1\SB114.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
284.7				45.0	
	42.0	Orange fine to medium SAND, saturated at 45.0 feet.		39.0	SB-114 (42-44 ft)
279.7					SB-114 Uppermost (45-48 ft)
	47.0	Light gray, gray, light yellow slightly silty fine to medium SAND.			
274.7					
	50.5	Black to white sandy CLAY.			
	51.5	Light gray and light orange slightly clayey slightly silty very fine to fine SAND.			
	53.8	Gray very slightly, silty fine SAND with some medium grains.			
269.7	55.0	Light gray, dark gray, purple, brown fine SAND with medium grains.			
264.7					
	60.5	White to light gray very clayey fine to coarse SAND with sandstone and limestone fragments, saturated.			
	62.5	Very light gray sandy to pure CLAY with some limestone fragments, moist to dry.			SB-114 Twiggs (60-65 ft)
259.7					
254.7					
249.7					
	75.9	Blue gray slightly sandy to pure CLAY.			
	78.5	Boring terminated at 78.5 feet.			
244.7					

REMARKS:

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-114
DATE STARTED 2/5/03
DATE COMPLETED 2/6/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 300.53 ft

C:\TKLLOG~1\TKPLOT~1\SB115.PL3 RRN-1 12-10-03

ELEVATION	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
300.5	0.0	Dark brown slighty clayey silty fine SAND.	29.4	SB-115 (0-2 ft)
	0.8	Brown-red silty sandy CLAY.	6.3	
295.5			9.6	
			1.1	
	9.0	Brown-red silty very clayey fine SAND with some medium to coarse grains.	9.7	
290.5			3.4	
	12.5	Light orange to light red slightly silty fine SAND.	71.2	SB-115 (11-13 ft)
285.5			359	
	16.5	Light red, light orange, white very fine to medium SAND with some coarse grains.	242	
			1050	SB-115 (18-20 ft)
280.5	20.0	Orange to brown-red slighty clayey slightly silty fine to medium SAND with some coarse grains. Saturated at 23.5 feet.	550	
			100	
	23.8	Brown, yellow, white, sandy silty CLAY with soft limestone fragments - saturated.		
275.5	24.8	Orange to yellow clayey silty very fine to fine SAND.		SB-115 Upper(24-27 ft)
	25.2			
	25.7	Light gray with brown-red to yellow silty very sandy CLAY.		
		Dark gray and yellow brown slightly silty fine SAND with medium grains.		
270.5				
	33.3	Light gray to white fine SAND - saturated.		SB-115 Twiggs(33-37 ft)
265.5				
	36.0	White, black, light gray slightly silty fine SAND with some medium grains.		
	36.7			
	37.0	Very light gray slightly silty to slightly sandy CLAY to pure CLAY, dry.		
		Boring terminated at 37.0 feet.		
260.5				

REMARKS:

1. Drilling Technique: 0 to 37.0 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-115 (0-2 ft), (11-13 ft), (18-20 ft) = soil samples collected for laboratory analysis, Upper(24-27 ft) and Twiggs(33-37 ft) = ground-water samples collected for laboratory analysis.
4. ⏚ water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-115
DATE STARTED 3/13/03
DATE COMPLETED 3/13/03
JOB NUMBER 12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Datum elevation 325.69 ft

C:\TKLLOG~1\TKPLOT~1\SB116.PL3 RRN-1 12-10-03

ELEVATION	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
325.7	0.0	Brown-red clayey silty very fine to fine SAND.	2.3	SB-116 (0-2 ft)
	3.2	Brown-gray slightly silty fine SAND.	0.8	
320.1	5.0	Brown-red slightly micaceous very sandy very silty CLAY.	0.9	
			0.8	
	9.0	Brown-red slightly silty sandy CLAY.	0.0	
314.4			0.0	
			1.7	
	15.5	Brown-red slightly clayey very silty fine SAND	0.3	
308.8	16.5	with medium grains. Brown-red slightly micaceous very silty very clayey very fine to fine SAND.	0.0	
			0.0	
			73.5	
303.2			44.9	
	23.5	Brown-red slightly micaceous slightly clayey very silty very fine to fine SAND with some medium grains, hard and dry.	12.9	
			0.0	
297.6			92.3	
			NR	
	31.8	Brown-red and orange, light yellow and light gray slightly silty fine to medium SAND with some coarse grains, dry.	11.9	
291.9			124	
			NR	
286.3			NR	
	43.5	Boring terminated at 43.5 feet.		
280.7				

REMARKS:
1. Drilling Technique: 0 to 43.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-116 (0-2 ft) = soil sample collected for laboratory analysis.
4. NR = no reading

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER SB-116
DATE STARTED 3/12/03
DATE COMPLETED 3/12/03
JOB NUMBER 12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Datum elevation 326.59 ft

C:\TKLOG~1\TKPLOT~1\SB117.PL3 RRN-1 12-12-03

ELEVATION	DEPTH (FEET)	DESCRIPTION	PID	Sample Points
326.6	0.0	Dark brown to dark gray slightly silty to clayey very fine to fine SAND.	0.0	SB-117 (0-2 ft)
	2.2	Brown-red very clayey very silty very fine to fine SAND.	0.0	
319.7			2.4	
			1.3	
	9.5	Brown-red slightly micaceous clayey sandy SILT.	0.0	
			0.0	
312.8			17.3	SB-117 (12-14 ft)
			2.1	
	17.0	Brown-red very slightly micaceous silty very sandy CLAY with thin occasional light gray silty fine to medium SAND seams.	0.0	
			0.8	
306.0			0.0	
	23.0	Brown-red clayey very silty fine SAND with some medium to corse grains.	2.1	
			1.3	
299.1			1.8	
	28.0	Light red to orange to yellow very slightly clayey very fine to fine SAND.	0.0	
	29.5	Orange-yellow to orange-brown very slightly silty fine SAND, dry.	0.8	
			2.1	
292.2			2.4	
	37.5	Light brown, yellow-brown, yellow, light gray very slightly silty fine to medium SAND with some coarse grains, slightly moist.	2.1	
			5	
285.3			0.0	
			0.0	
	44.5	Light gray, light yellow, light orange fine to medium SAND, wet at 48.0 ft.	4.4	SB-117 (44-46 ft)
			NR	
278.5				
	50.0	Boring terminated at 50.0 feet.		
271.6				

WELL DIAGRAM: ▽

REMARKS:
1. Drilling Technique: 0 to 50.0 feet using direct push sampling techniques.
2. Soil boring backfilled with cement-bentonite grout.
3. SB-117 (0-2 ft), (12-14 ft) and (44-46 ft) soil sample collected for laboratory analysis.
4. NR = not recorded.
5. ▽ Water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	SB-117
DATE STARTED	3/12/03
DATE COMPLETED	3/12/03
JOB NUMBER	12000-0-2050

TEST BORING RECORD

Datum elevation 284.09 ft

C:\TKLOG~1\TKPLOT~1\SB118.PL3 RRN-1 12-10-03

ELEVATION 284.09	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
284.1	0.0	Dark brown very silty fine SAND.		0.8	SB-118 (0-2 ft)
	0.5	Light brown very slightly silty fine SAND with some medium grains. Saturated at 6 feet.		3.7	
279.1				1.5	SB-118 (4-5 ft)
	7.4	Gray with brown-red very clayey fine to medium SAND.			SB-118 Upper (6-10 ft)
274.1					
	12.0	Gray with red-brown slightly silty clayey medium SAND with some fine and coarse grains, saturated.			
269.1					
	16.5	Gray with light and dark gray very slightly silty fine SAND with some medium grains, saturated.			
	18.5	Light gray slightly sandy CLAY to pure CLAY, dry.			SB-118 Twiggs (17-21 ft)
264.1					
	21.0	Boring terminated at 21.0 feet.			
259.1					
254.1					
249.1					
244.1					

REMARKS:
1. Drilling Technique: 0 to 21.0 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. SB-118 (0-2 ft), (4-5 ft) = soil samples collected for laboratory analysis, Upper(6-10 ft) and Twiggs (17-21 ft) ground-water samples collected for laboratory analysis.
4. ⏚ water level encountered during drilling.

DRILLED BY MACTEC
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	SB-118
DATE STARTED	3/26/03
DATE COMPLETED	3/26/03
JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser 2.49 ft
Top of casing elevation 333.77 ft

C:\TKLOG~1\TKPLOT~1\MW11.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Point
331.3	0.0	Gray to brown slightly clayey very silty fine SAND.			
	1.0	Brown to red silty sandy CLAY.			
326.3					
321.3	10.0	Brown-red with some light yellow to light gray silty sandy CLAY.			
316.3					
311.3	20.5	Red to purple and light gray with some light yellow sandy silty CLAY.			
306.3					
	26.5	Brown-red, light gray, white, light yellow and light red clayey silty very fine to fine SAND.			
	28.5	Brown to yellow to white slightly clayey silty very fine to fine SAND.			
301.3	29.5	Yellow light gray brown to red silty very sandy CLAY.			
	31.0	Brown-red to light gray to yellow very slightly clayey slightly silty fine SAND with medium grains and clay lenses.			
	34.0	Red-brown with white to yellow slightly silty fine to medium SAND with some thin sandy clay lenses.			
296.3					
	38.0	Pink to brown-orange very slightly silty very fine to fine SAND.			
	39.0	Light brown orange fine SAND with medium grains.			
291.3					

REMARKS:
1. Drilling Technique: 0 to 79.0 feet using 6-inch rotosonic drilling.
2. 2-inch Schedule 40 PVC well with 10 feet of 0.01-inch slot well screen and riser.
3. ▽ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER MW-11
DATE STARTED 2/11/03
DATE COMPLETED 2/11/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser 2.49 ft
Top of casing elevation 333.77 ft

C:\TKLLOG~1\TKPLOT~1\MW11.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
291.3		
	42.5	Light orange, pink, light gray slightly silty very fine to fine SAND slightly moist.
286.3	45.0	Light pink with light orange to light gray fine SAND with medium grains (dry).
	49.0	Light gray to light yellow fine SAND.
281.3	50.5	Yellow to orange very slightly silty fine to medium SAND.
	54.0	Light brown and dark gray slightly to very silty fine to medium SAND.
276.3		
	59.5	White with light yellow very clayey very silty fine to medium SAND, wet.
271.3	60.5	Dark gray and dark brown slightly sandy slightly silty CLAY.
	62.3	Light gray to light brown very slightly silty fine to medium SAND.
	64.0	Light yellow clayey silty fine to medium SAND.
266.3	65.0	Light gray very clayey silty fine SAND.
	66.5	White to light gray very slightly clayey slightly silty very fine to fine SAND, moist.
	68.0	Dark brown very slightly clayey silty fine to medium SAND, saturated.
	69.0	Light gray very fine to fine SAND, saturated.
261.3		
	71.5	Light gray to gray to white very clayey very fine to fine SAND.
	72.8	Very light gray to white very clayey fine to coarse SAND and coarse to very coarse limestone fragments, saturated.
256.3		
	75.8	Light gray sandy CLAY, (dry).
	77.5	Very light gray and gray slightly sandy CLAY to pure CLAY, (dry).
	78.5	Very light gray pure CLAY, (dry).
251.3	79.0	Boring terminated at 79.0 feet.

WELL DIAGRAM

PID

Sample Point

REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER MW-11
DATE STARTED 2/11/03
DATE COMPLETED 2/11/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser 2.37 ft
Top of casing elevation 328.34 ft

C:\TKLOG~1\TKPLOT~1\MW12.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Point
326.0	0.0	Brown to gray slightly silty fine SAND.			
	1.0	Brown-red very silty sandy CLAY.			
321.0					
316.0					
	12.0	Brown-red silty sandy CLAY with a few fine quartz pebbles.			
311.0					
306.0					
301.0					
	26.3	Brown-red and light yellow with light gray clayey silty very fine to fine SAND.			
	29.0	Brown to yellow to red to brown with light gray and white slightly clayey silty to very silty fine SAND with some medium grains.			
296.0					
291.0					
	36.5	Light orange with light gray and brown-red and white very slightly clayey silty fine SAND with medium grains.			
	38.0	Light gray, light brown to light orange very slightly silty fine to medium SAND.			
286.0					

REMARKS:
1. Drilling Technique: 0 to 73.0 feet using 6-inch rotosonic drilling.
2. 2-inch Schedule 40 PVC well with 10 feet of 0.01-inch slot screen and riser.
3. ⏚ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	MW-12
DATE STARTED	2/11/03
DATE COMPLETED	2/11/03
JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser 2.37 ft
Top of casing elevation 328.34 ft

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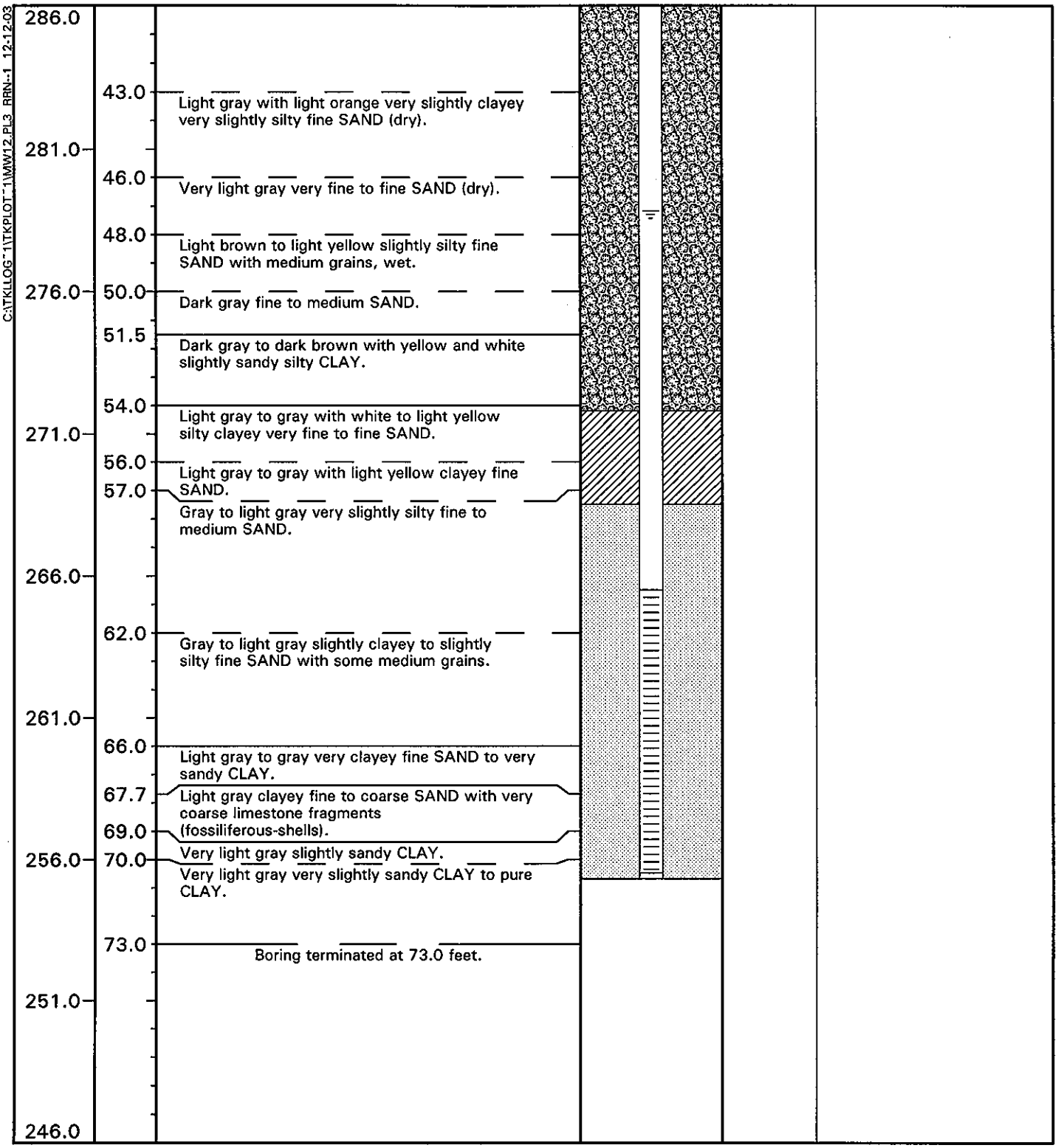


REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER MW-12
DATE STARTED 2/11/03
DATE COMPLETED 2/11/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser 2.48 ft
Top of casing elevation 283.71 ft

C:\TKLOG~1\TKPLOT~1\MW13.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
281.2	0.0	Brown clayey very silty fine SAND.
	1.0	Brown slightly silty fine SAND with medium grains.
	4.0	Brown-red silty clayey fine SAND.
276.2		
	8.5	Brown-red and light gray silty clayey fine SAND.
271.2		
	10.7	Brown-red and light gray to light yellow silty sandy CLAY.
	14.5	Light orange very slightly silty fine SAND with medium grains.
266.2		
	16.5	Dark brown slightly silty fine SAND with medium grains, wet.
	19.0	Brown to light gray and white slightly clayey silty very fine to fine SAND.
261.2	20.0	Light gray very clayey fine to coarse SAND with fine to coarse limestone fragments, wet.
	21.0	Very light gray with some dark brown slightly sandy CLAY, dry.
	23.0	Very light gray slightly sandy CLAY to pure CLAY.
256.2	25.0	Boring terminated at 25.0 feet.
251.2		
246.2		
241.2		

WELL DIAGRAM

PID

Sample Point

REMARKS:
1. Drilling Technique: 0 to 25.0 feet using 6-inch rotosonic drilling.
2. 2-inch Schedule 40 PVC well with 10 feet of 0.01-inch slot screen and riser.
3. ⌅ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	MW-13
DATE STARTED	2/12/03
DATE COMPLETED	2/12/03
JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser: 2.2 ft
Top of casing elevation 311.62 ft

C:\TKLOG~1\MW-14.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Point
309.4		Red-brown to light orange with dark brown and white clayey silty fine to medium SAND with some coarse grains.			
304.4					
299.4					
294.4					
289.4					
284.4					
279.4					
274.4					
	38.0	Light brownish-gray and white slightly clayey to clayey fine to medium SAND, some coarse sand and coarse limestone fragments, wet.			
269.4					

REMARKS:

1)Drilling technique: 0 to 51 feet, 10-inch diameter rotosonic casing, 51 to 88 feet, 6-inch rotosonic casing.

2) 6-inch Schedule 40 PVC outer casing set 0 to 51 feet. 2-inch Schedule 40 PVC inner casing set 0 to 86.5 feet. 15 feet of 0.01-inch slot screen set 71.2 to 86.2 feet.

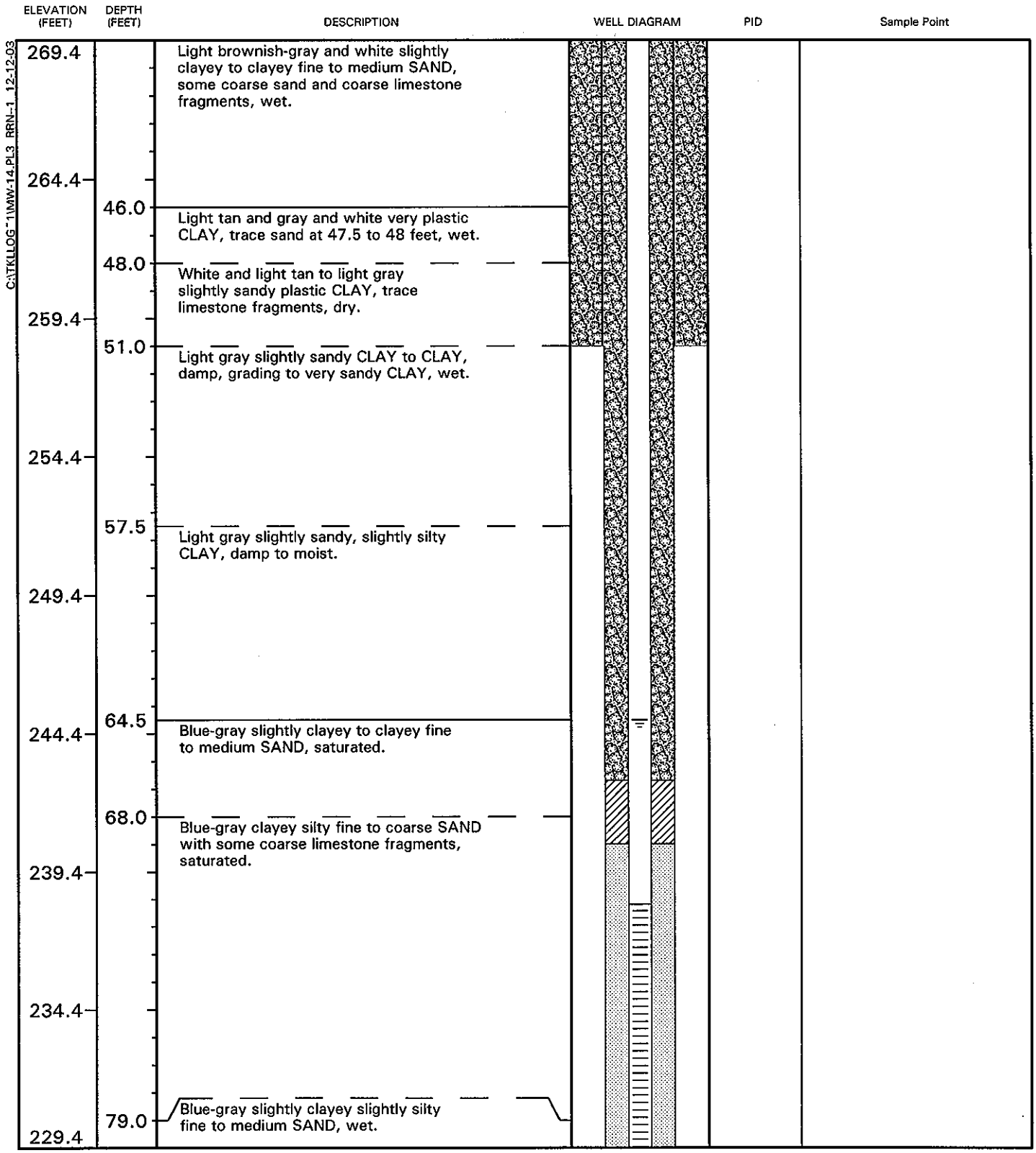
3. ⌅ Water level measured on 9/11/03.

DRILLED BY	Prosonic	BORING NUMBER	MW-14
LOGGED BY	R Seymour	DATE STARTED	3/26/03
CHECKED BY	R Quinn	DATE COMPLETED	4/27/03
		JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser: 2.2 ft
Top of casing elevation 311.62 ft



REMARKS:

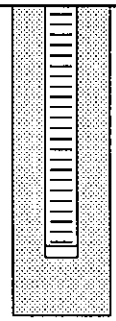
DRILLED BY	Prosonic	BORING NUMBER	MW-14
LOGGED BY	R Seymour	DATE STARTED	3/26/03
CHECKED BY	R Quinn	DATE COMPLETED	4/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser: 2.2 ft
Top of casing elevation 311.62 ft

C:\TKLLOG~1\MW-14.PL3 RRN--1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Point
229.4					
	82.0	Blue-gray very sandy silty CLAY.			
	83.5	Blue-gray slightly clayey slightly silty fine to medium SAND with some coarse grains and coarse limestone fragments.			
224.4					
	87.8	Blue-gray slighty sandy CLAY to pure CLAY.			
	88.0	Boring terminated at 88.0 feet			
219.4					
214.4					
209.4					
204.4					
199.4					
194.4					
189.4					



REMARKS:

DRILLED BY	Prosonic	BORING NUMBER	MW-14
LOGGED BY	R Seymour	DATE STARTED	3/26/03
CHECKED BY	R Quinn	DATE COMPLETED	4/27/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser 2.61 ft
Top of casing elevation 260.17 ft

C:\TKLLOG~1\TKPLOT~1\MW15.PL3 RRN--1 12-12-03

ELEVATION 284.09	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
257.6	0.0	Dark gray to black very silty fine SAND.			
	0.4	Gray slightly silty fine SAND with some medium grains, saturated.			
	2.2	Gray silty very clayey fine SAND.			
	2.6	Gray, brown-red, yellow slightly silty very clayey fine SAND with medium grains, mottled, wet.			
252.6					
	7.2	Light gray with brown mottling very slightly sandy very slightly silty CLAY.			
	9.0				
247.6	9.7	Light gray, brown-yellow slightly silty slightly sandy CLAY, dry and very hard.			
		Blue-gray slightly silty CLAY to pure CLAY, very hard and dry.			
	12.0	Boring termination at auger refusal at 12.0 feet.			
242.6					
237.6					
232.6					
227.6					
222.6					
217.6					

REMARKS:
1. Drilling Technique: 0 to 12.0 feet using 6-inch OD hollow-stem augers.
2. 2-inch Schedule 40 PVC well with 5 feet 0.01-inch slot screen and riser.
3. ⏚ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER MW-15
DATE STARTED 3/27/03
DATE COMPLETED 3/27/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser 2.47 ft
Top of casing elevation 253.81 ft

C:\TKLOG~1\TKPLOT~1\MW16.PL3 RRN--1 12-12-03

ELEVATION 284.09	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
251.3	0.0	Dark gray black silty fine SAND.			
	0.7	Brown gray slightly silty fine SAND - saturated.			
	3.8	Gray, brown, yellow, blue-green silty very sandy CLAY - wet.			
246.3					
	8.5	Light gray, yellow, light brown silty very clayey fine SAND with medium grains.			
241.3					
	11.5	Blue-gray slightly silty CLAY very hard dry.			
	12.5	Boring terminated at auger refusal at 12.5 feet.			
236.3					
231.3					
226.3					
221.3					
216.3					
211.3					

REMARKS:
1. Drilling Technique: 0 to 12.5 feet using 6-inch OD hollow-stem augers.
2. 2-inch Schedule 40 PVC well with 5 feet 0.01-inch slot screen and riser.
3. ⏚ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER	MW-16
DATE STARTED	3/13/03
DATE COMPLETED	3/14/03
JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser: 2.50 ft
Top of casing elevation 260.48 ft

C:\TKLLOG~1\TKL-MW~2.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
258.0	0.0	Yellowish-brown, silty, fine- to medium-grained quartz SAND.
253.0		
	9.0	Very stiff greenish-gray, slightly sandy, hard, cohesive, fissle-like, silty CLAY with thin (<1") sandy clay lenses.
248.0		
	14.0	Hard, greenish-gray, slightly fissle, silty CLAY. At 19 feet thin (<1") lenses of fine to very coarse-grained, rounded quartz sand and some well rounded quartz pebbles.
243.0		
238.0		
233.0	25.0	Dense, greenish-gray, slightly gravelly, clayey, fine to very coarse-grained, well rounded, quartz SAND with shell fragments.
	29.0	Very firm, gray, clayey and silty medium to coarse-grained, rounded, quartz SAND with shell fragments.
228.0		
	34.0	Very firm, gray,gravelly, rounded, fine to very coarse-grained silty SAND with abundent shell fragments; silt present as matrix.
223.0		
	39.0	Firm, greenish-gray, clayey, gravelly, medium to coarse-grained, subrounded, quartz SAND. Clay present as matrix. Hard at 40.5 feet.
218.0		

WELL DIAGRAM

PENETRATION-BLOWS PER FOOT

0 5 10 15 20 40 60 80 100

29
35
46
42
26
23
18

REMARKS:

1. Drilling Method: 0-49ft. 6-inch OD hollow-stem augers; 0-50.3 ft. direct mud-rotary using 5 7/8-inch roller cone bit.
2. 2-inch Schedule 40 PVC well with 15 feet 0.01-inch slot screen set 33 to 47.5 ft and riser.
3. ⏚ Water level measured on 9/11/03.

DRILLED BY	MACTEC	BORING NUMBER	MW-17
LOGGED BY	C Krambis	DATE STARTED	05/08/03
CHECKED BY	R Quinn	DATE COMPLETED	05/08/03
		JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser: 2.50 ft
Top of casing elevation 260.48 ft

C:\TKLLOG~1\TKL-MW~2.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
218.0		Firm greenish-gray, clayey, gravelly, medium to coarse-grained, subrounded, quartz SAND.
	44.0	
213.0		Very dense, greenish-gray, partially cemented, silty, fine to medium- grained, quartz SAND with abundant shell fragments.
208.0	50.3	Boring terminated at drill bit refusal at 50.3 feet
203.0		
198.0		
193.0		
188.0		
183.0		
178.0		

WELL DIAGRAM

PENETRATION-BLOWS PER FOOT

0 5 10 15 20 40 60 80 100

18

50/3"

74

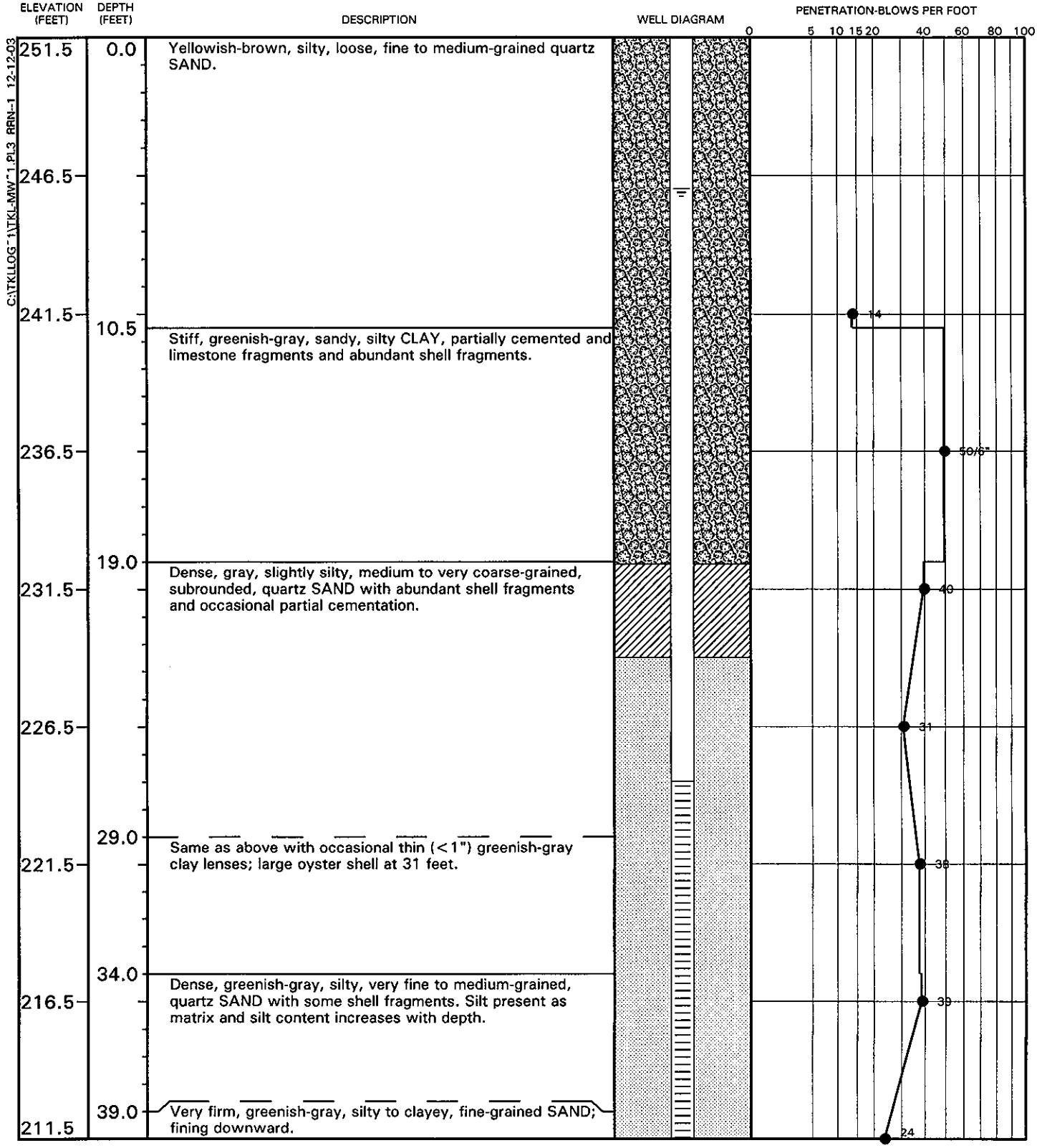
REMARKS:

DRILLED BY	MACTEC	BORING NUMBER	MW-17
LOGGED BY	C Krambis	DATE STARTED	05/08/03
CHECKED BY	R Quinn	DATE COMPLETED	05/08/03
		JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser: 2.64 ft
Top of casing elevation 254.18 ft



REMARKS:

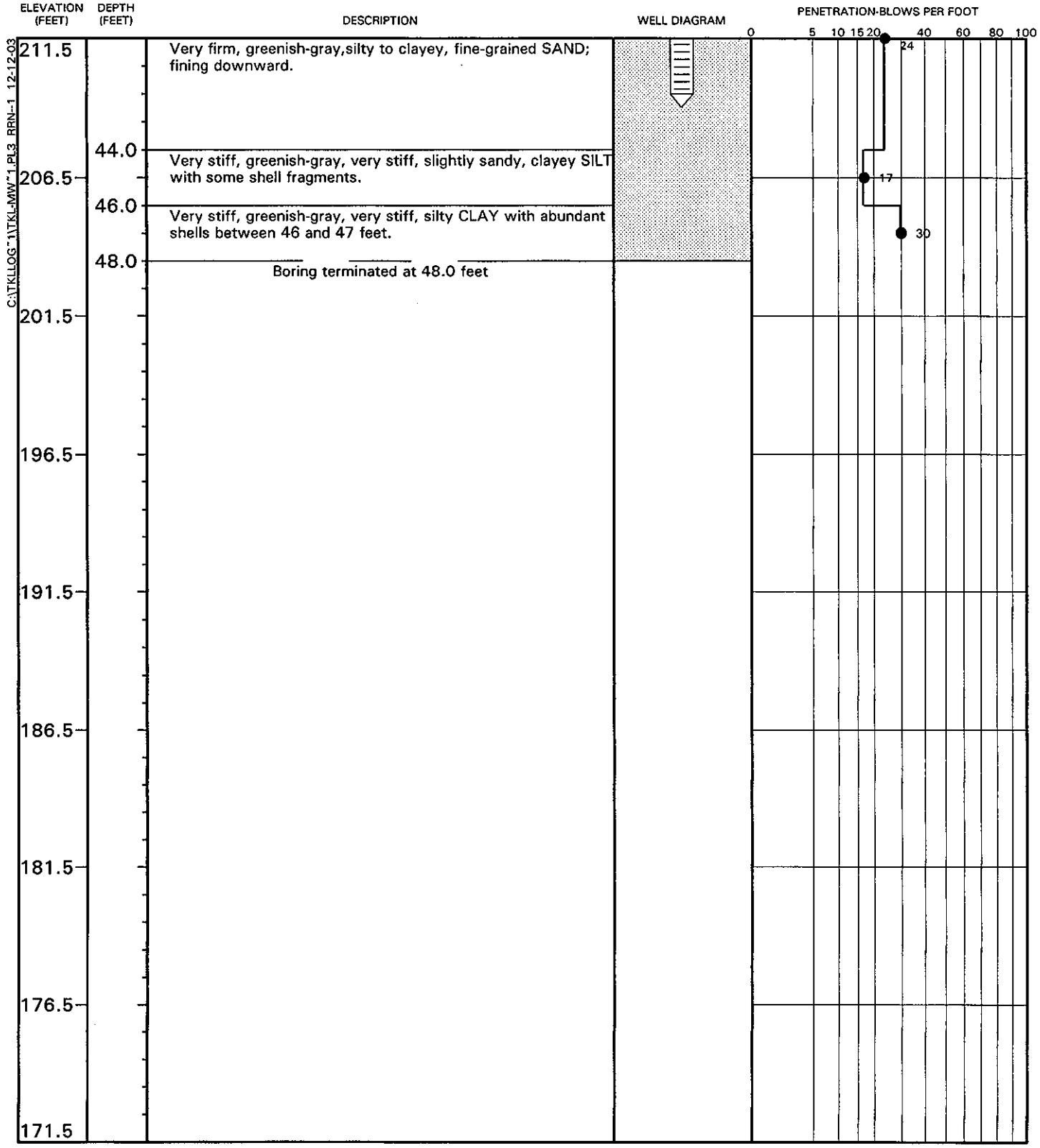
1. Drilling Method: 0-48ft. direct mud-rotary using 5 7/8-inch roller cone bit.
2. 2-inch Schedule 40 PVC well with 15 feet of 0.01-inch slot screen set 27 to 42 ft and riser.
3. ⏚ Water level measured on 9/11/03.

DRILLED BY	MACTEC	BORING NUMBER	MW-18
LOGGED BY	C Krambis	DATE STARTED	05/09/03
CHECKED BY	R Quinn	DATE COMPLETED	05/09/03
		JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser: 2.64 ft
Top of casing elevation 254.18 ft



REMARKS:

DRILLED BY	MACTEC	BORING NUMBER	MW-18
LOGGED BY	C Krambis	DATE STARTED	05/09/03
CHECKED BY	R Quinn	DATE COMPLETED	05/09/03
		JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser 2.45 ft
Top of casing elevation 311.89 ft

C:\TKLLOG~1\TKPLOT~1\MW19.PL3 RRN-1 12-12-03

ELEVATION 311.89	DEPTH (FEET)	DESCRIPTION
309.4	0.0	Light to dark brown silty SAND.
	1.0	Brown-red sandy clayey SILT to very clayey very sandy SILT.
304.4		
	8.0	Brown to gray silty clayey fine SAND with medium grains.
299.4	10.5	Brown-red clayey to very clayey silty to very silty very fine to fine SAND with medium grains.
	13.5	Brown-red slightly clayey silty to very silty very fine to fine SAND.
294.4		
	17.0	Red-orange slightly clayey slightly silty fine to medium SAND, very moist.
289.4	19.5	Red-orange and brown-red clayey silty fine SAND with medium grains, slightly moist.
	23.0	Orange, light yellow, light gray, light brown slightly silty very fine to fine SAND, slightly moist.
284.4		
	26.5	Light orange to light brown very slightly silty fine SAND with medium grains, wet.
	28.0	Light gray, white, orange slightly silty fine to medium SAND, wet.
279.4		
	30.5	Light orange silty fine SAND, wet.
	31.0	Brown, white, gray, yellow with dark gray black silty sandy CLAY to very silty very sandy CLAY with some coarse grains and pebbles.
	34.5	Black, yellow, white, dark gray silty clayey to very clayey very fine to fine SAND, moist.
274.4		
	36.0	Orange to light gray to dark gray slightly silty fine to medium SAND, saturated.
	37.5	Dark to light gray with some white slightly silty fine to medium SAND, saturated.
269.4		

WELL DIAGRAM | PID | Sample Point

REMARKS:
1. Drilling Technique: 0 to 47.0 feet using 6-inch rotosonic drilling.
2. 2-inch Schedule 40 PVC well with 10 feet of 0.01-inch slot screen and riser.
3. ⏚ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER MW-19
DATE STARTED 5/20/03
DATE COMPLETED 5/20/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser 2.45 ft
Top of casing elevation 311.89 ft

C:\TKLOG~1\TKPLOT~1\MW19.PL3 RRN-1 12-12-03

ELEVATION 311.89	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Point
269.4	41.0	Light gray to white slightly silty to slightly clayey very fine to fine SAND, saturated.			
	42.5	Light gray and white very clayey sandy SILT, wet.			
	43.3	Light gray very clayey fine SAND, saturated.			
	44.0	Very light gray very clayey fine to very coarse SAND with limestone fragments and pebbles.			
264.4	46.0	Very light gray sandy CLAY to pure CLAY, dry below 46.5 feet. Twiggs.			
	47.0	Boring terminated at 47.0 feet.			
259.4					
254.4					
249.4					
244.4					
239.4					
234.4					
229.4					

REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER MW-19
DATE STARTED 5/20/03
DATE COMPLETED 5/20/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser -0.21 ft
Top of casing elevation 325.75 ft

C:\TKLLOG~1\TKPLOT~1\MW20.PL3 RRN-1 12-12-03

ELEVATION 311.89	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Point
326.0	0.0	Brown-red silty very sandy CLAY.			
	1.2	Light gray, gray, brown slightly silty fine SAND.			
321.0	5.0	Brown-red silty sandy CLAY.			
316.0	10.0	Brown-red silty very sandy CLAY.			
311.0	15.0	Brown-red very clayey very silty fine to medium SAND.			
306.0					
301.0					
	29.0	Tan, red-brown, light red, white, light gray slightly silty to silty very fine to fine SAND, loosely cemented, dry.			
296.0					
	34.5	White, pink, yellow, light red, light gray very slightly silty fine SAND with some very fine and medium grainsslightly moist at 36.5 feet.			
291.0					
286.0					

REMARKS:
1. Drilling Technique: 0 to 69.0 ft, 10-inch diameter rotosonic casing, 69 to 107.0 ft, 6-inch diameter rotosonic casing.
2. 6-inch Schedule 40 PVC outer casing set 0 to 69.0 feet. 2-inch Schedule 40 PVC inner casing set 0 to 107.0 feet. 15 feet of 0.01-inch slot well screen set at 91.7 to 106.7 feet.
3. ▽ Water level measured on 9/11/03.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER MW-20
DATE STARTED 5/19/03
DATE COMPLETED 5/21/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser -0.21 ft
Top of casing elevation 325.75 ft

C:\TKLOG~1\TKPLOT~1\MW20.PL3 RRN-1 12-12-03

ELEVATION 311.89	DEPTH (FEET)	DESCRIPTION
286.0	41.5	White and pink slightly silty SAND, slightly moist.
281.0	44.5	White with light pink, light gray and yellow loosely cemented slightly silty very fine to fine SAND, dry.
	45.5	Light brown to yellow-brown slightly silty to slightly clayey fine SAND with medium grains, wet at 46.0 feet.
276.0	49.0	White with black and gray sandy clayey SILT with limestone fragments.
	51.5	Dark brown to black clayey silty fine SAND to very sandy CLAY, wet.
271.0	54.0	Light yellow and gray clayey silty fine SAND, saturated.
	55.0	Light gray with medium gray and white very slightly silty fine SAND, saturated.
266.0	58.5	White very clayey fine to coarse SAND with limestone fragments to very sandy CLAY with limestone fragments and some pebbles, saturated.
261.0	63.0	Very light gray sandy CLAY to pure CLAY, moist to dry with depth.
256.0	67.0	Very light gray slightly sandy CLAY to pure CLAY, dry.
251.0	72.5	Very light gray sandy to very sandy CLAY, dry.
	74.0	Very light gray slightly sandy CLAY to pure CLAY, dry.
	75.1	Blue-gray sandy to silty CLAY to pure CLAY, dry.
246.0	77.0	Blue-gray silty very sandy CLAY, slightly moist to moist.

WELL DIAGRAM

PID

Sample Point

REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER MW-20
DATE STARTED 5/19/03
DATE COMPLETED 5/21/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser -0.21 ft
Top of casing elevation 325.75 ft

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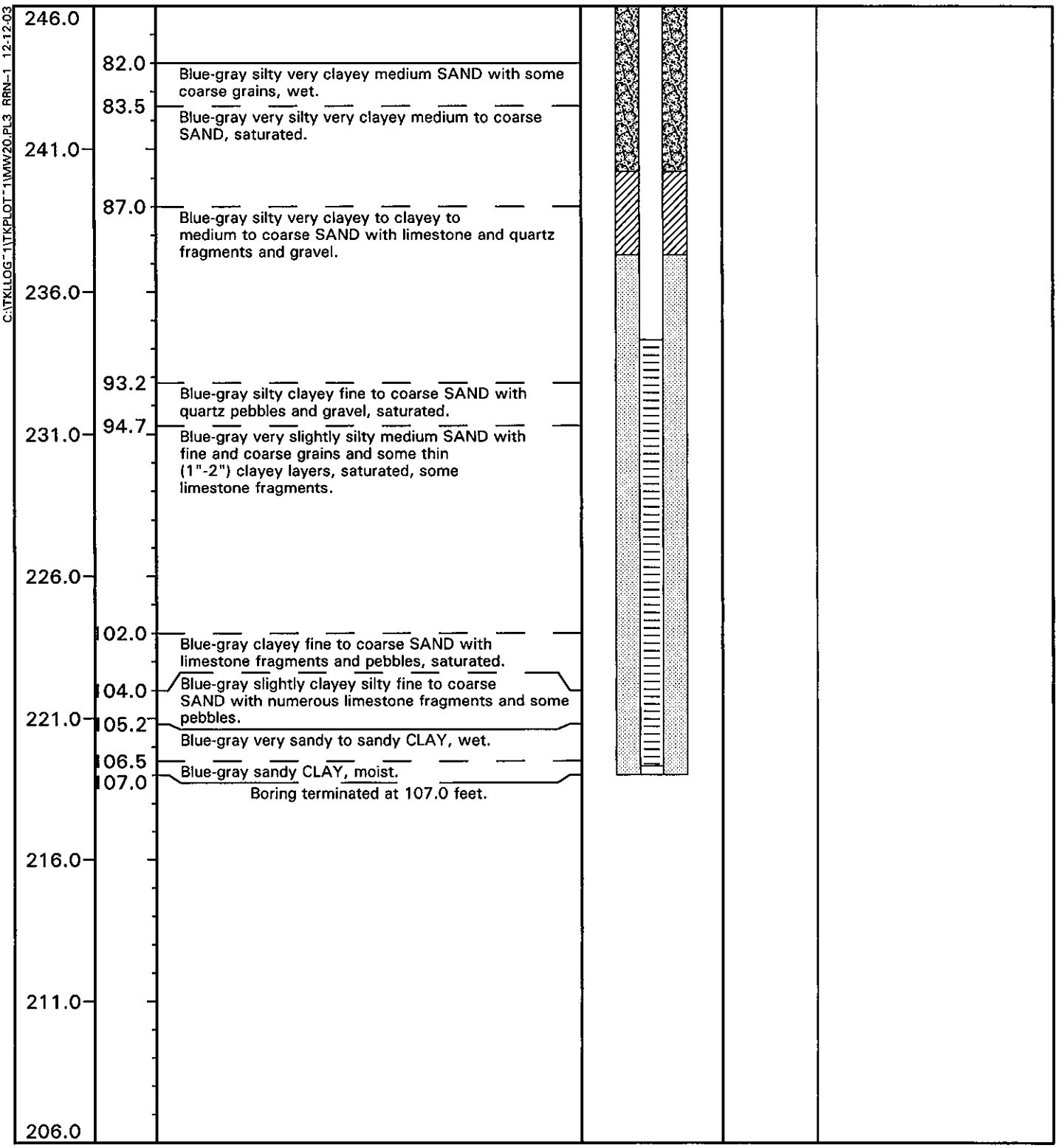


REMARKS:

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER MW-20
DATE STARTED 5/19/03
DATE COMPLETED 5/21/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser: -0.26 ft
Top of casing elevation 320.49 ft

C:\TKLLOG~1\MW21.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
320.8		Brownish-red sandy very silty CLAY to very sandy very silty CLAY.
315.8		
310.8		
	14.0	
305.8		Brownish-red to reddish-orange very clayey very silty very fine to medium SAND.
300.8		
295.8		
290.8		
	31.0	
285.8		Light orange to light yellow to white very fine to fine SAND with some medium grains wet at 36 feet.
	37.5	Yellow to light yellow to white silty very sandy CLAY.
	38.5	
280.8		Light brown to light gray very fine to fine SAND with some medium grains.

WELL DIAGRAM | PID | Sample Point

REMARKS:

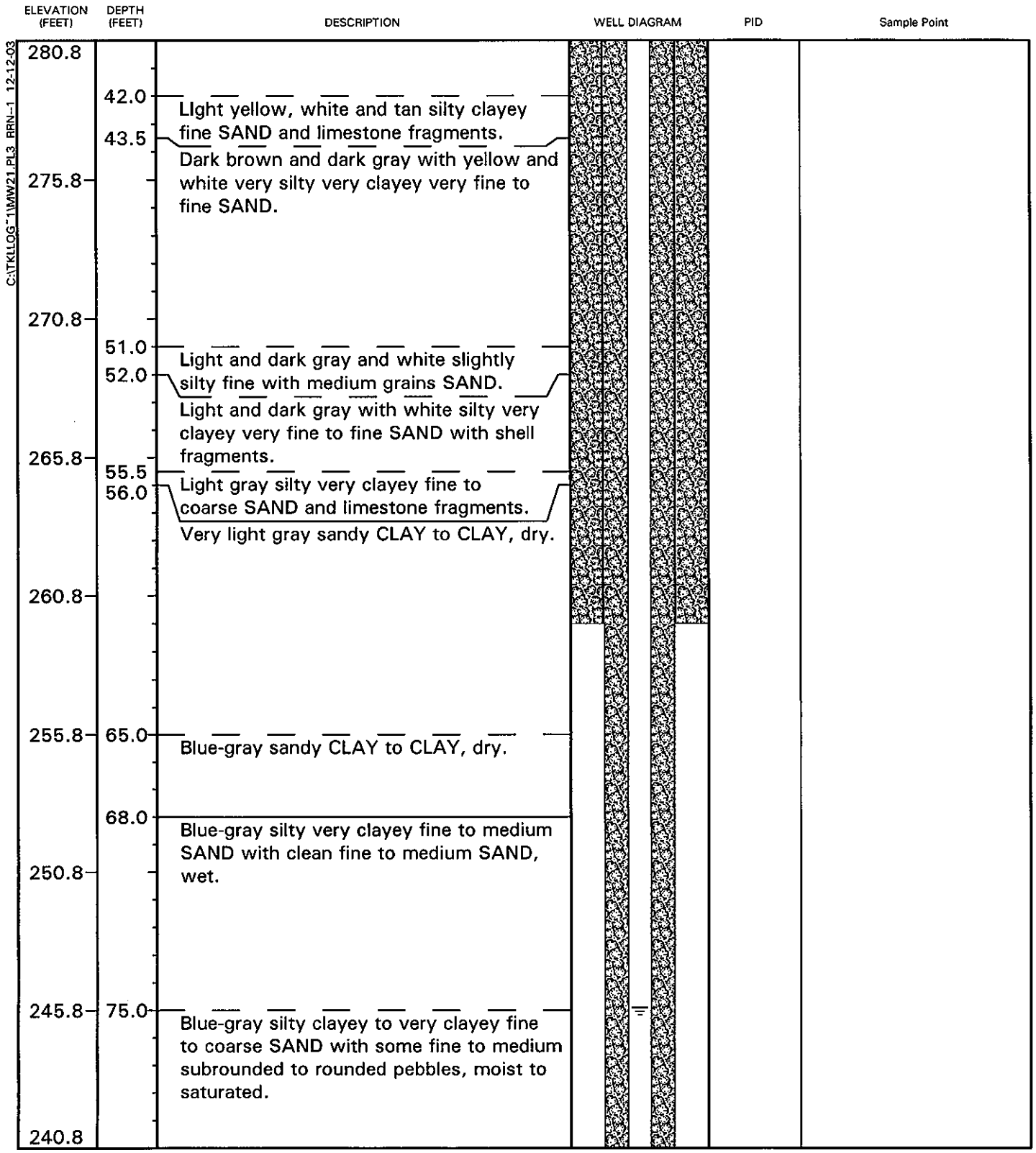
1. Drilling Technique:0 to 61 ft, 10-inch diameter rotosonic drilling casing. 61 to 105.2 ft, 6-inch diameter rotosonic drilling casing.
2. 6-inch Schedule 40 PVC outer casing set 0 to 61 ft. 2-inch Schedule 40 PVC inner casing set 0 to 105.2 ft. 15 feet of 0.01-inch slot well screen set 89.7 to 104.7 ft.
3. ∓ Water level measured on 9/11/03.

DRILLED BY	Prosonic	BORING NUMBER	MW-21
LOGGED BY	R Seymour	DATE STARTED	8/27/03
CHECKED BY	R Quinn	DATE COMPLETED	9/03/03
		JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser: -0.26 ft
Top of casing elevation 320.49 ft



REMARKS:

DRILLED BY	Prosonic	BORING NUMBER	MW-21
LOGGED BY	R Seymour	DATE STARTED	8/27/03
CHECKED BY	R Quinn	DATE COMPLETED	9/03/03
		JOB NUMBER	12000-0-2050

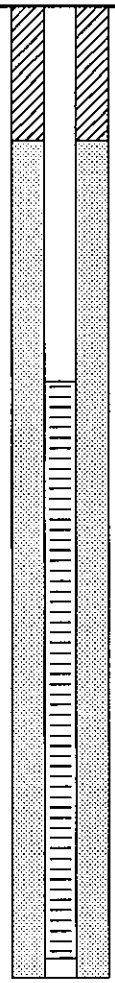
TEST BORING RECORD

Height of riser: -0.26 ft
Top of casing elevation 320.49 ft

C:\TKLLOG~1\MW21.PL3 RRN--1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
240.8		
	83.5	Blue-gray fine to medium SAND, saturated.
235.8		
	89.0	Blue-gray silty clayey to very clayey fine to medium SAND with some coarse grains and fine subrounded pebbles.
230.8		
	93.5	Blue-gray slight silty fine to medium SAND with limestone fragments and shells.
225.8		
	98.0	Blue-gray silty clayey to very clayey fine to medium SAND with some coarse grains, shell fragments and fine subrounded pebbles, saturated.
220.8		
	104.0	Blue-gray sandy silty CLAY with some shell fragments, moist.
215.8	105.2	Boring terminated at 105.2 feet.
210.8		
205.8		
200.8		

WELL DIAGRAM



PID

Sample Point

REMARKS:

DRILLED BY	Prosonic	BORING NUMBER	MW-21
LOGGED BY	R Seymour	DATE STARTED	8/27/03
CHECKED BY	R Quinn	DATE COMPLETED	9/03/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser: -0.24 ft
Top of casing elevation 334.05 ft

C:\TKLOG~1\MW22.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Point
334.3		Light brown silty fine SAND.			
	1.5	Brownish-red silty sandy to very sandy CLAY.			
329.3					
324.3					
319.3					
314.3					
309.3					
304.3					
	34.0	Brownish-red to reddish-orange with light yellow and tan slightly clayey silty fine to medium SAND.			
299.3					
294.3					

REMARKS:

1. Drilling Technique: 0 to 80 ft, 10-inch diameter rotosonic drilling casing. 80 to 116 ft, 6-inch diameter rotosonic drilling casing.
2. 6-inch Schedule 40 PVC outer casing set 0 to 80 ft. 2-inch Schedule 40 PVC inner casing set 0 to 114.4 ft. 15 feet of 0.01-inch slot PVC well screen set at 98.9 to 113.9 ft.
3. ▽ Water level measured on 9/11/03.

DRILLED BY	Prosonic	BORING NUMBER	MW-22
LOGGED BY	R Seymour	DATE STARTED	9/4/03
CHECKED BY	R Quinn	DATE COMPLETED	9/6/03
		JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser: -0.24 ft
Top of casing elevation 334.05 ft

C:\TKLLOG~1\MW22.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
294.3		
	43.0	Light yellow with light brown and gray very slightly silty fine SAND with medium grains.
289.3	45.0	Light gray with light yellow and orange very slightly silty very fine to medium SAND.
284.3	50.0	Light orange and yellow with gray very slightly silty fine to medium SAND, wet at 49 feet.
279.3		
	57.0	Light gray, light yellow, and dark gray with white silty sandy to very sandy CLAY.
	59.0	Light yellow very silty clayey to very clayey fine to coarse SAND with limestone fragments.
274.3	60.5	Dark brown, yellow, light gray and orange very silty very clayey very fine to fine SAND with some medium grains.
269.3		
264.3		
	71.0	Light gray very clayey very silty fine to coarse SAND with limestone fragments.
	73.0	Light gray slightly sandy slightly silty CLAY to pure CLAY, dry to moist.
259.3		
254.3		

WELL DIAGRAM | PID | Sample Point

REMARKS:

DRILLED BY	Prosonic	BORING NUMBER	MW-22
LOGGED BY	R Seymour	DATE STARTED	9/4/03
CHECKED BY	R Quinn	DATE COMPLETED	9/6/03
		JOB NUMBER	12000-0-2050

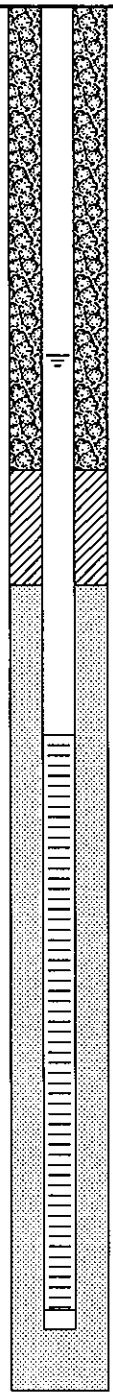
TEST BORING RECORD

Height of riser: -0.24 ft
Top of casing elevation 334.05 ft

C:\TKLLOG~1\MW22.PL3 RRN-1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
254.3	81.0	Blue-gray slightly silty slightly sandy to sandy CLAY to pure CLAY, moist to dry.
249.3		
	89.0	
244.3	90.0	Blue-gray clayey silty fine SAND and limestone fragments, dry.
		Blue-gray silty clayey to very clayey fine to medium SAND with coarse grains and some fine subrounded to rounded pebbles, wet to saturated.
239.3		
	99.0	
234.3		Blue-gray slightly silty fine SAND, saturated.
	02.5	Blue-gray very silty very clayey very fine to fine SAND, moist.
	04.0	Blue-gray slightly silty fine SAND with medium grains, saturated.
229.3		
224.3		
	14.0	Blue-gray sandy silty CLAY, dry.
219.3		
	16.0	Boring terminated at 116.0 feet
214.3		

WELL DIAGRAM



PID

Sample Point

REMARKS:

DRILLED BY	Prosonic	BORING NUMBER	MW-22
LOGGED BY	R Seymour	DATE STARTED	9/4/03
CHECKED BY	R Quinn	DATE COMPLETED	9/6/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser: -0.26 ft
Top of casing elevation 323.77 ft

C:\TKLOG~1\MW23TO~1.PL3 RRN-1_12-12-03

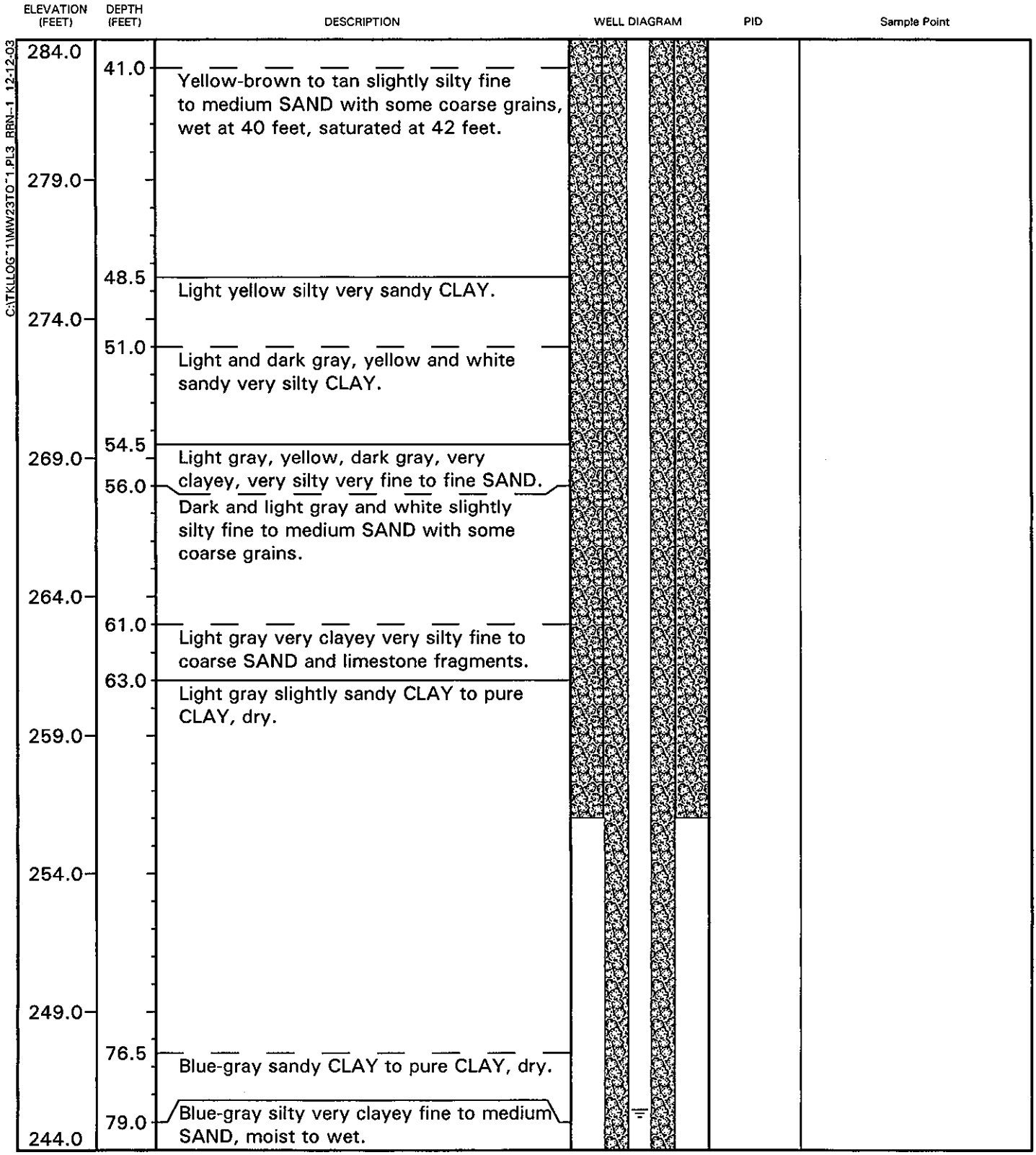
ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Point
324.0		Brown-red with some yellow silty sandy to very sandy CLAY, dry.			
319.0					
314.0					
309.0					
304.0					
	23.0	Brown-red with light gray and yellow silty very sandy CLAY.			
299.0					
	29.0	Brown-red, yellow and light gray clayey silty fine to medium SAND.			
294.0					
	32.5	Orange, yellow and red slightly silty to silty fine to medium SAND.			
289.0					
284.0					

REMARKS:
1. Drilling Technique: 0 to 68 ft, 10-inch diameter rotosonic drilling casing. 68 to 106.5ft, 6-inch diameter rotosonic drilling casing.
2. 6-inch Schedule 40 PVC outer well casing set 0 to 68 ft, 2-inch Schedule 40 PVC inner casing set 0 to 106.5 ft. 15 feet of 0.01-inch slot well screen set 90 to 106 ft.
3. ▽ Water level measured on 9/11/03.

DRILLED BY	Prosonic	BORING NUMBER	MW-23
LOGGED BY	R Seymour	DATE STARTED	8/26/03
CHECKED BY	R Quinn	DATE COMPLETED	9/3/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser: -0.26 ft
Top of casing elevation 323.77 ft



REMARKS:

DRILLED BY	Prosonic	BORING NUMBER	MW-23
LOGGED BY	R Seymour	DATE STARTED	8/26/03
CHECKED BY	R Quinn	DATE COMPLETED	9/3/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

Height of riser: -0.26 ft
Top of casing elevation 323.77 ft

C:\TKLLOG~1\MW23TO~1.PL3 RRN--1 12-12-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Point
244.0					
239.0	85.0	Blue-gray silty clayey fine to coarse SAND with fine to medium rounded to subrounded pebbles, saturated.			
234.0					
	93.0	Blue-gray slightly silty slightly to very clayey fine SAND with some medium grains, saturated.			
229.0					
224.0					
	102.5	Blue-gray very clayey silty fine to coarse SAND and limestone fragments,wet.			
219.0	105.0	Blue-gray sandy silty CLAY with some pebbles and limestone fragments, dry.			
	106.5	Boring terminated at 106.5 feet			
214.0					
209.0					
204.0					

REMARKS:

DRILLED BY	Prosonic	BORING NUMBER	MW-23
LOGGED BY	R Seymour	DATE STARTED	8/26/03
CHECKED BY	R Quinn	DATE COMPLETED	9/3/03
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

HEIGHT OF RISER: -0.17
TOP OF CASING ELEVATION: 321.23

C:\TKLLOG~1\MW24.PL3 RRN--1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
321.4		Reddish-brown slightly clayey silty fine SAND grading to silty clayey fine SAND, dry.
316.4	7.0	Red and trace brown slightly clayey very silty fine SAND and fine sandy SILT, trace coarse sand, brittle, stiff, dry.
311.4		
306.4	17.0	Reddish-orange very silty very fine to fine SAND, cohesive. 25-27 feet lighter reddish-orange fine to medium SAND, loose moist.
301.4		
296.4	27.0	Reddish-orange to light orange slightly clayey fine to medium SAND, loose, moist.
291.4	31.0	Mottled black with light tan and light orange fine to medium SAND, no fines, well sorted, loose, moist.
	32.0	Gray, white, light tan and light orange fine to medium SAND, no fines, well sorted, trace fine grained fossil fragments, loose, moist.
286.4	37.0	Light orange and tan fine to medium SAND, no fines, loose, moist.
281.4		

WELL DIAGRAM

PENETRATION-BLOWS PER FOOT
0 5 10 15 20 40 60 80 100

REMARKS:
1)Drilling technique: 0 to 147 feet rotosonic with 4x6-inch casing for soil sampling. Boring reamed 0 to 67 feet with 14-inch rotary bit and mud rotary drilling. Boring reamed 67 to 117 feet with 9.75-inch rotary bit and mud rotary drilling.
2)1st outer casing: 10-inch Schedule 40 PVC set 0 to 67 feet.

DRILLED BY	Prosonic	BORING NUMBER	MW-24
LOGGED BY	RNQ	DATE STARTED	10/5/04
CHECKED BY		DATE COMPLETED	10/11/04
		JOB NUMBER	12000-0-2050

MACTEC

TEST BORING RECORD

HEIGHT OF RISER: -0.17
TOP OF CASING ELEVATION: 321.23

C:\TKLOG~1\MW24.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
281.4		Light orange and tan fine to medium SAND, no fines, loose, moist.
	43.5	Grayish-brown and black with trace tan and white mottled fine sandy silty CLAY, cohesive.
276.4	45.0	
	46.0	Grayish-brown with trace white and tan silty clayey fine to medium SAND, cohesive, wet.
	47.0	Mottled grayish-brown slightly clayey fine to medium SAND, wet.
271.4	50.0	Grayish-brown and white and tan with trace black grains silty fine to medium SAND, loose, wet.
		Mottled grayish-brown with brown, white and tan and trace yellow slightly clayey to clayey fine to medium SAND, becoming
266.4	55.0	more clayey with depth, cohesive, wet.
		Grayish-white clayey fine to coarse SAND with some angular limestone pebbles, wet.
	58.0	
		Light gray and white trace tan slightly fine sandy CLAY with trace angular coarse sand and pebbles, trace laminations,very cohesive, moderately to very plastic, very stiff, fissile, dry.
261.4		
256.4		
	67.0	
		Tan clayey fine to medium SAND, wet.
	68.0	Tan slightly sandy CLAY, plastic, moist.
	69.5	
251.4	70.0	Gray CLAY, some plasticity, brittle, stiff.
		Gray silty CLAY, some plasticity.
	73.0	
		Gray fine to medium sandy CLAY, plastic, moist.
246.4		
	76.0	Light gray to white LIMESTONE, very fine
	76.8	to gravel size angular fragments, dry.
		Gray slightly clayey to clayey silty fine to coarse SAND, with some angular fine to coarse limestone gravel, wet.
241.4		

WELL DIAGRAM

PENETRATION-BLOWS PER FOOT
0 5 10 15 20 40 60 80 100

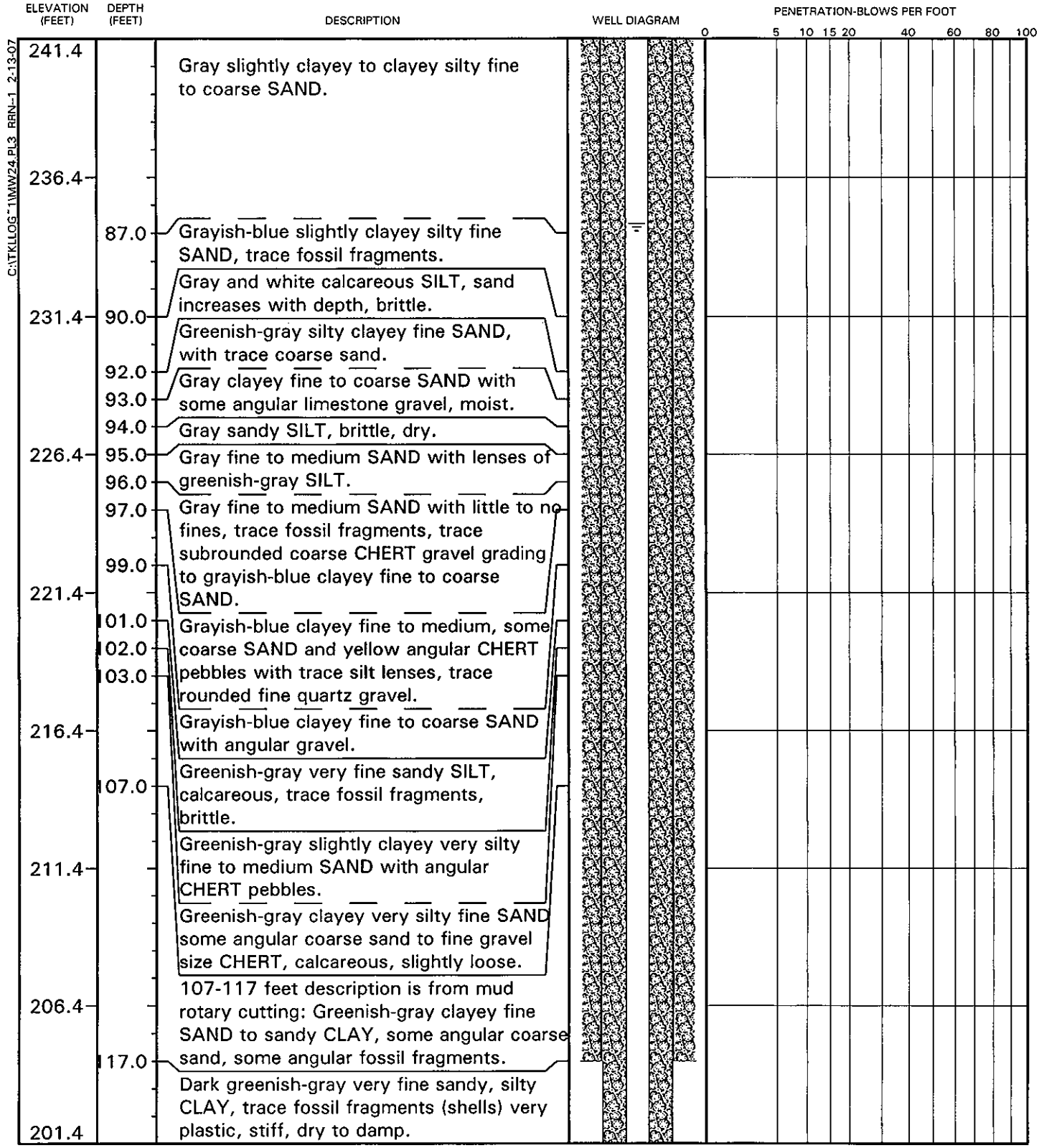
REMARKS:
2nd outer casing: 6-inch Schedule 40 PVC casing set 0 to 117 feet.
3rd casing: 2-inch Schedule 40 PVC casing set 0 to 147 feet.
3)Well constructed with 10 feet of 0.01-inch slot Schedule 40 PVC well screen set 137 to 147 feet.

DRILLED BY	Prosonic	BORING NUMBER	MW-24
LOGGED BY	RNQ	DATE STARTED	10/5/04
CHECKED BY		DATE COMPLETED	10/11/04
		JOB NUMBER	12000-0-2050

MACTEC

TEST BORING RECORD

HEIGHT OF RISER: -0.17
TOP OF CASING ELEVATION: 321.23



REMARKS:
4) ▽ Drilling water level
5) ▼ Static water level

DRILLED BY	Prosonic	BORING NUMBER	MW-24
LOGGED BY	RNQ	DATE STARTED	10/5/04
CHECKED BY		DATE COMPLETED	10/11/04
		JOB NUMBER	12000-0-2050

MACTEC

TEST BORING RECORD

HEIGHT OF RISER: -0.17
TOP OF CASING ELEVATION: 321.23

C:\TKLLOG~1\MW24.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
201.4	20.0	Dark greenish-gray very fine sandy very silty CLAY, trace fossil fragments, calcareous, plastic, stiff, dry to damp, becoming less sandy and more silty with depth.
196.4		
	27.0	Dark greenish-gray very fine to medium sandy very silty CLAY, with some angular coarse gravel, stiff, sticky, plastic, cohesive.
191.4		
	31.5	Dark greenish-gray silty very fine to fine sandy CLAY, trace shell fragments, slightly stiff to firm, plastic, cohesive, damp to moist.
186.4	35.0	Light gray to gray LIMESTONE fragments, hard.
	37.0	Dark greenish-gray clayey fine to coarse SAND, trace angular gravel,slightly cohesive, wet.
181.4		
	41.0	Dark greenish-gray clayey silty fine to coarse SAND, loose, wet.
	43.0	Dark greenish-gray slightly clayey silty fine to coarse SAND with angular gravel, wet.
176.4	45.0	
	46.0	Dark greenish-gray slightly clayey fine to coarse sandy SILT, dry.
	47.0	Light greenish-gray very fine to fine sandy SILT, no cohesion, brittle, dry.
		Boring terminated at 147.0 feet
171.4		
166.4		
161.4		

WELL DIAGRAM

PENETRATION-BLOWS PER FOOT
0 5 10 15 20 40 60 80 100

REMARKS:

DRILLED BY	Prosonic	BORING NUMBER	MW-24
LOGGED BY	RNQ	DATE STARTED	10/5/04
CHECKED BY		DATE COMPLETED	10/11/04
		JOB NUMBER	12000-0-2050

MACTEC

TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TK\LOG~1\KD-1.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
	0.4	Concrete		134	
		Reddish brown sandy silty CLAY, tight, stiff, dry to moist.		385	Kd-1 (2ft)
				72.5	
				147	Kd-1 (4 ft)
				35.8	
				31.2	
				24.3	
				8.8	
				7.2	
				6.1	
	12.0	Boring terminated at 12.0 feet		11	

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located in former degreaser area on west-central portion of building.

DRILLED BY	AtlasGeo-Sampling	BORING NUMBER	Kd-1
LOGGED BY	AMC/JLP	DATE STARTED	4/12/05
CHECKED BY	RNQ	DATE COMPLETED	4/12/05
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLLOG~1\KD-2.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
	0.4	Concrete			
		Reddish brown sandy silty plastic CLAY, 5-8 ft trace pebbles, tight to very tight, dry to moist.		25.6 5.4 31.2 11.6 13.7 9.6 50.6 3.3 4.9 2.8	Kd-2 (8 ft)
	12.0	Boring terminated at 12.0 feet		0.3	

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located in former degreaser area on the west-central portion of building.

DRILLED BY	AtlasGeo-Sampling	BORING NUMBER	Kd-2
LOGGED BY	AMC/JLP	DATE STARTED	4/12/05
CHECKED BY	RNQ	DATE COMPLETED	4/12/05
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLLOG~1\KD-3.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
	0.4	Concrete		34.8	
	2.0	Medium brown silty SAND (FILL).		70.2	
		Reddish brown slightly sandy silty CLAY, tight, stiff, dry.		94.2	Kd-3 (3 ft)
				146	Kd-3 (4 ft)
				5.7	
	6.0	Mottled reddish brown and light brown and yellow slightly sandy to sandy silty CLAY, with some minor organic material.		22.5	
				7.9	
				3.8	
				2.5	
				6.3	
				3.5	
	12.0	Boring terminated at 12.0 feet		0.1	

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located in former degreaser area in west-central portion of building.

DRILLED BY AtlasGeo-Sampling

LOGGED BY AMC/JLP

CHECKED BY RNQ

BORING NUMBER Kd-3

DATE STARTED 4/12/05

DATE COMPLETED 4/12/05

JOB NUMBER 12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLLOG~1\KD-4.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
	0.4	Concrete		355	
		Reddish brown sandy silty CLAY, sand content increases with depth, stiff, dry.		487	Kd-4 (2 ft)
				322	
				13.4	
				3.3	
				1.3	
				1.6	
				6.0	
				4.3	
				2.0	
				100	Kd-4 (11 ft)
	12.0	Boring terminated at 12.0 feet		6.1	

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.
2)Boring filled with bentonite upon completion of sampling.
3)Boring located in former degreaser area on west-central portion of building.

DRILLED BY	AtlasGeo-Sampling	BORING NUMBER	Kd-4
LOGGED BY	AMC/JLP	DATE STARTED	4/12/05
CHECKED BY	RNQ	DATE COMPLETED	4/12/05
		JOB NUMBER	12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLLOG~1\KD-5.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
	0.4	Concrete		8.4	
		Reddish brown sandy silty CLAY, tight, stiff, dry.		30.6 60.5	Kd-5 (3 ft)
	5.0	Reddish brown mottled with brownish yellow sandy CLAY with trace pebbles.		6.7 0.9 3.0 9.3 2.8 9.3 16.0 17.5	
	12.0	Boring terminated at 12.0 feet		13.6	

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located in former degreaser area on west-central portion of building.

DRILLED BY AtlasGeo-Sampling
LOGGED BY AMC/JLP
CHECKED BY RNQ

BORING NUMBER Kd-5
DATE STARTED 4/12/05
DATE COMPLETED 4/12/05
JOB NUMBER 12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

DATUM ELEVATION: ~322 FT

C:\TKLLOG~1\KD-6.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
		Reddish brown silty sandy CLAY 0 to 7 ft.		NR	
		Wet at 3.5 ft.		2.5	
		Soils were saturated from 8 to 12 ft and		0.3	
		no soils were recovered in sampling rods.		0	No samples collected.
		Soil samples were not collected for		0	
		laboratory analysis from this boring.		0.3	
				0	
				NR	
				NR	
				NR	
				NR	
	12.0	Boring terminated at 12.0 feet		NR	

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located in former south settling pond area.

NR No recovery of soil samples.

DRILLED BY AtlasGeo-Sampling
LOGGED BY AMC/JLP
CHECKED BY RNQ

BORING NUMBER Kd-6
DATE STARTED 4/13/05
DATE COMPLETED 4/13/05
JOB NUMBER 12000-0-2050

MACTEC Engineering&Consulting

TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLLOG~1\KD-7.PL3 RRN--1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
		Asphalt and concrete		68.1	
	1.0	Reddish brown sandy CLAY, very stiff (FILL)		210	
	2.0	Reddish brown silty sandy CLAY mottled with yellowish tan CLAY, trace organic material, very stiff, dry. Some moisture at 4 ft. Mottling increases at 8 ft.		57	
				16.6	Kd-7 (3 ft)
				9.8	
				20.9	
				3.8	
				1.7	
				1.6	
				1.9	
				6.3	
				0.7	
	12.0	Boring terminated at 12.0 feet		3.4	

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.
2)Boring filled with bentonite upon completion of sampling.
3)Boring located on west side of former aboveground storage tank area.

DRILLED BY	AtlasGeo-Sampling	BORING NUMBER	Kd-7
LOGGED BY	AMC/JLP	DATE STARTED	4/13/05
CHECKED BY	RNQ	DATE COMPLETED	4/13/05
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLOG~1\KD-8.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
		Asphalt			
	1.0	Brownish tan clayey SAND (FILL)		260	
	3.5	Reddish brown silty sandy CLAY with some mottling of brown sandy CLAY, tight, slightly moist.		10.1 0.3 2.6 2.5 1.9 1.7	
	8.5				
	9.0	Concrete fill material (slough?)		363	Kd-8 (9 ft)
		Reddish brown silty sandy CLAY, tight, dry.		8.3 6.8 20.2 NR 41.9 11.8	
	16.0	Boring terminated at 16.0 feet.		17.9	

REMARKS:

1)Drilling technique: 0 to 16 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located on north side of former aboveground storage tank area.

NR No recovery of soil sample.

DRILLED BY AtlasGeo-Sampling
LOGGED BY AMC/JLP
CHECKED BY RNQ

BORING NUMBER Kd-8
DATE STARTED 4/13/05
DATE COMPLETED 4/13/05
JOB NUMBER 12000-0-2050

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TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLOG~1\KD-9.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
		Concrete and fill.		NR	
				Fill	
	3.0	Reddish brown silty clayey SAND, tight, dry.		33.3	
				8.4	
				15.9	
				18.6	
				69.2	Kd-9 (7 ft)
	8.0	Reddish brown with some brownish tan mottling subangular very sandy CLAY.		27.2	
				420	Kd-9 (9 ft)
				46.9	Kd-9 (10 ft)
	11.0			39.6	
	12.0	Reddish brown sandy fat CLAY, sand is quartz and mica.		13.8	
		Boring terminated at 12.0 feet			

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located in former degreasers area on east-central portion of building.

DRILLED BY	AtlasGeo-Sampling	BORING NUMBER	Kd-9
LOGGED BY	AMC/JLP	DATE STARTED	4/13/05
CHECKED BY	RNQ	DATE COMPLETED	4/13/05
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLLOG~1\KD-10.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
		Asphalt and fill material described as brown clayey SAND.			
	2.5	Reddish brown sandy, silty CLAY tight, dry.		438	Kd-10 (3 ft)
				245	
				193	
				96.1	
				40.0	
	8.0			23.7	
		Reddish brown silty sandy CLAY mottled with light brownish tan clayey subangular quartz and mica SAND. Sand content increases with depth.		711	Kd-10 (9 ft)
				474	
				97.6	
				16	
				863	Kd-10 (13 ft)
				243	
				3006	Kd-10 (15 ft)
				119	
				2012	Kd-10 (17 ft)
				1375	
				511	
	20.0			126	
		Boring terminated at 20.0 feet			

REMARKS:

1)Drilling technique: 0 to 20 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located in former degreasers area on the east-central portion of building.

DRILLED BY	AtlasGeo-Sampling	BORING NUMBER	Kd-10
LOGGED BY	AMC/JLP	DATE STARTED	4/13/05
CHECKED BY	RNQ	DATE COMPLETED	4/13/05
		JOB NUMBER	12000-0-2050

TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLLOG~1\KD-11.PL3 RRN--1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
		Asphalt and Fill		0	
	2.0			2.7	
	3.0	Brown clayey SAND		25.7	
		Reddish brown with some brownish tan mottling silty sandy CLAY, tight, dry.		60.1	Kd-11 (4 ft)
				19.3	
				54.8	Kd-11 (6 ft)
				25.4	
				38.3	
				2334	
				29.4	
	12.0	Boring terminated at 12.0 feet		20.8	

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located in former degreasers area on east-central portion of building.

DRILLED BY AtlasGeo-Sampling
LOGGED BY AMC/JLP
CHECKED BY RNQ

BORING NUMBER Kd-11
DATE STARTED 4/13/05
DATE COMPLETED 4/13/05
JOB NUMBER 12000-0-2050

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TEST BORING RECORD

DATUM ELEVATION: ~325 FT

C:\TKLLOG~1\KD-12.PL3 RRN-1 2-13-07

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (ppm)	Sample Points
	1.0	Concrete/Fill/Asphalt (FILL)		NR	
		Brown clayey SAND		NR	
	3.0	Reddish brown with some brownish tan mottling sandy, silty CLAY, tight, dry.		17.1	
				15.9	
				6.5	
				30.9	
				9.7	
				18.5	
				667	Kd-12 (9 ft)
				466	Kd-12 (10 ft)
				NR	
	12.0	Boring terminated at 12.0 feet		NR	

REMARKS:

1)Drilling technique: 0 to 12 feet direct-push technology sampling techniques.

2)Boring filled with bentonite upon completion of sampling.

3)Boring located in former degreasers area on east-central portion of building.

NR No recovery of soil sample

DRILLED BY AtlasGeo-Sampling
LOGGED BY AMC/JLP
CHECKED BY RNQ

BORING NUMBER Kd-12
DATE STARTED 4/13/05
DATE COMPLETED 4/13/05
JOB NUMBER 12000-0-2050

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TEST BORING RECORD

330.45

DATUM ELEVATION: ~~345 ft. (approx.)~~

E:\STB-1.PL3 RRN-1 3-08-01

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
345.0		SAND; medium brown; fine to medium grained quartz; subrounded to rounded, moderately well sorted; some dark grains, some trace of clay; loose; wet.
	3.5	CLAY; red, commonly mottled with light orange; sandy; fine to medium grained; sand is mostly quartz, but some dark grains, subrounded to rounded, clay is stiff and cohesive
340.0		
	9.0	Clayey SAND; red; clay is interstitial, moderately dry
335.0		
330.0		
325.0		
320.0		
315.0		
	31.0	SAND; red to orange; slightly clayey; moderately loose; trace clay; subrounded to rounded; poorly sorted; moist
310.0	35.0	SAND; light orange to yellow; fine to coarse grained; poorly sorted; subrounded to rounded; very loose; dry; some dark grains and very coarse quartz grains
305.0		

BORING DIAGRAM

SAMPLE POINT

REMARKS:

1. Drilling Technique: 0 to 177 feet bgs using rotosonic techniques.
2. Borehole backfilled with cement-bentonite grout.

▽ Water level encountered during drilling.

DRILLED BY	Prosonic	BORING NUMBER	STB-1
LOGGED BY	CK	DATE STARTED	11/27/00
CHECKED BY	RNQ	DATE COMPLETED	11/28/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

330.45

DATUM ELEVATION: ~~345 ft. (approx)~~

E:\STB-1.PL3 RRN-1 3-08-01

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SAMPLE POINT
305.0	41.0	SAND; light gray to white; fine to medium grained; well sorted; very loose; dry; quartz with some dark grains; little or no fines subrounded to rounded; quartz is clear; orange accessory minerals also present	
300.0			
	47.0	CLAYSTONE; mostly lithified; white mottle with orange, dark gray with black staining; dense and cohesive	
295.0			
	52.0	CLAY; sandy and some silt; brown mottled with yellow, orange, gray, and black; cohesive; moist; grading to stiff clayey SAND; gray fine to very coarse grained; poorly sorted; clay present in matrix; accessory dark and orange grains; rounded; saturated	
290.0			
	57.0	SAND; gray mottled with light gray; poorly sorted; medium to very coarse grained; very loose; some lenses with interstitial clay; well rounded, dark and orange grains common	
285.0			
280.0			
	67.0	SAND; white; fine to medium grained; moderately well sorted; loose; some dark and orange accessory minerals	STB-1 (67-69.5) (physical testing)
	69.5	CLAY; light greenish-gray to tan; calcareous; stiff; dense; very cohesive; silty but no sand; some black staining, laminated at base (almost fissle); moist	STB-1 (72-73) (physical testing)
275.0			
270.0		6" sand seam medium to very coarse grained; subrounded to rounded; quartz grains; light gray clay matrix	
	77.0	CLAY; dark bluish-gray; stiff; very dense and cohesive; slightly fissile; very sticky; clay is slightly calcareous	
265.0			

REMARKS:
1. Drilling Technique: 0 to 177 feet bgs using rotosonic techniques.
2. Borehole backfilled with cement-bentonite grout.

▽ Water level encountered during drilling.

DRILLED BY	Prosonic	BORING NUMBER	STB-1
LOGGED BY	CK	DATE STARTED	11/27/00
CHECKED BY	RNQ	DATE COMPLETED	11/28/00
		JOB NUMBER	12000-0-2050.04

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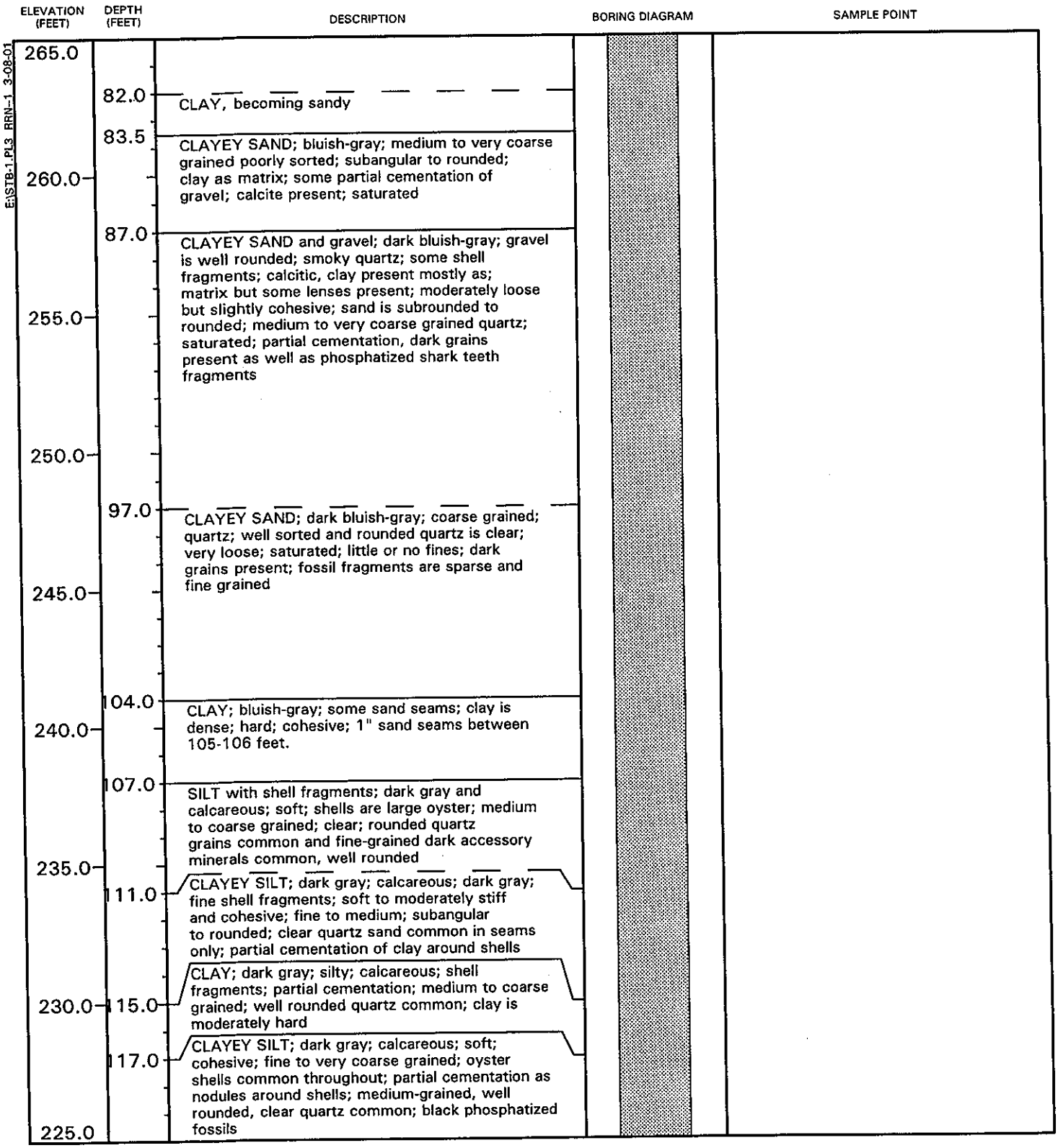
TEST BORING RECORD

330.45

DATUM ELEVATION: ~~345 ft. (approx.)~~



REMARKS:

1. Drilling Technique: 0 to 177 feet bgs using rotosonic techniques.
2. Borehole backfilled with cement-bentonite grout.

⌯ Water level encountered during drilling.

DRILLED BY	Prosonic	BORING NUMBER	STB-1
LOGGED BY	CK	DATE STARTED	11/27/00
CHECKED BY	RNQ	DATE COMPLETED	11/28/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

330.45
DATUM ELEVATION: ~~345 ft. (approx)~~

E:\STB-1.PL3 RRN-1 3-08-01

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
225.0	120.0	CLAYEY SILT
	123.0	SILT with clay; green to dark gray; fine shells and more common; clear quartz present; black carbonaceous material abundent; material is friable but not cemented; moist
220.0	125.5	LIMESTONE; dark gray; very hard; brittle; massive; micritic, non-fossiliferous
	127.0	CLAY; dark greenish-gray; silty; stiff; cohesive; sticky; calcareous; minor amounts of very fine quartz sand and shell fragments throughout; moist
215.0		
210.0		
205.0		
200.0		
	148.0	LIMESTONE; hard; brittle; gray; silt and clay in calcite cement; some very fine quartz sand; no fossils
195.0	150.0	SILT; clayey and sandy; lithified shell fragments increase with depth to becoming limestone lenses
	153.0	CLAYEY SILT; quartz is present as very fine grained sand, well rounded; shark tooth found at 156' bgs. 150-157 ft. is very fossiliferous (mostly fragments of various mollusk shells). Fines may be more or less present as matrix with depth
190.0		
185.0		

BORING DIAGRAM

SAMPLE POINT

REMARKS:
1. Drilling Technique: 0 to 177 feet bgs using rotosonic techniques.
2. Borehole backfilled with cement-bentonite grout.

⌄ Water level encountered during drilling.

DRILLED BY	Prosonic	BORING NUMBER	STB-1
LOGGED BY	CK	DATE STARTED	11/27/00
CHECKED BY	RNQ	DATE COMPLETED	11/28/00
		JOB NUMBER	12000-0-2050.04

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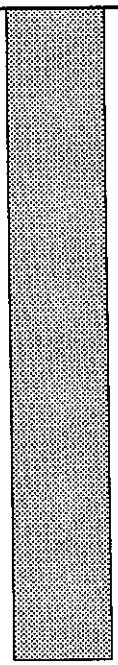
TEST BORING RECORD

DATUM ELEVATION: 330.45 ~~345 ft. (approx.)~~

E:\STB-1.PL3 RRN-1 3-08-01

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION
185.0		
	162.0	CLAYEY SILT; gray with limestone fragments; hard; brittle
	164.0	CLAY; greenish-gray; silty; very cohesive and dense; calcareous; minor amounts of very fine quartz and shell fragments; some cementation
180.0		
175.0		
170.0	175.0	SAND; dark gray; fine to medium grained; moderately well sorted; subangular to subrounded; very loose; sand is quartz with minor dark grains and fine shell fragments
	177.0	Boring terminated at 177.0 feet bgs
165.0		
160.0		
155.0		
150.0		
145.0		

BORING DIAGRAM



SAMPLE POINT

REMARKS:
1. Drilling Technique: 0 to 177 feet bgs using rotosonic techniques.
2. Borehole backfilled with cement-bentonite grout.

⏚ Water level encountered during drilling.

DRILLED BY	Prosonic	BORING NUMBER	STB-1
LOGGED BY	CK	DATE STARTED	11/27/00
CHECKED BY	RNQ	DATE COMPLETED	11/28/00
		JOB NUMBER	12000-0-2050.04

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TEST BORING RECORD

Datum elevation 257.18 ft

ELEVATION 284.09	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
257.2	0.0	Dark gray to black very silty fine SAND.		0.0	
	0.4	Gray slightly silty fine SAND with some medium grains, saturated.			
	2.2	Gray silty very clayey fine SAND.		0.0	
	2.6	Gray, brown-red, yellow slightly silty very clayey fine SAND with medium grains, mottled, wet.			
252.2				0.0	
	7.2	Light gray with brown mottled very slightly sandy very slightly silty CLAY.		0.0	
	9.0			0.0	
247.2	9.7	Light gray, brown-yellow slightly silty slightly sandy CLAY, dry and very hard.			
		Blue-gray slightly silty CLAY to pure CLAY, very hard and dry.		0.0	
	12.0	Boring terminated at refusal at 12.0 feet.			
242.2					
237.2					
232.2					
227.2					
222.2					
217.2					

C:\TK\LOG~1\TKPLOT~1\STB2.PL3 RRN-1 12-10-03

REMARKS:
1. Drilling Technique: 0 to 12.0 feet using direct push sampling techniques.
2. Borehole backfilled cement-bentonite grout.
3. ⌅ water level encountered during drilling.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

BORING NUMBER STB-2
DATE STARTED 3/27/03
DATE COMPLETED 3/27/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Datum elevation 251.51 ft

ELEVATION 284.09	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
251.5	0.0	Dark gray black to brown-gray slightly silty fine SAND - saturated at 0.7 feet.		0.0	
				0.0	
	3.8	Gray, brown, yellow, blue-green silty very sandy CLAY, wet.			
246.5				0.0	
				0.0	
	8.5	Light gray, yellow, light brown silty very clayey fine SAND with medium grains.		NR	
241.5					
	11.5	Blue-gray slightly silty CLAY, very hard and dry		NR	
	12.5	refusal at 12.5 feet.			
		Boring terminated at refusal at 12.5 feet.			
236.5					
231.5					
226.5					
221.5					
216.5					
211.5					

C:\TKLLOG~1\TKPLOT~1\STB3.PL3 RRN-1 12-10-03

REMARKS:
1. Drilling Technique: 0 to 12.5 feet using direct push sampling techniques.
2. Borehole backfilled with cement-bentonite grout.
3. ⏚ water level encountered during drilling.

DRILLED BY Prosonic
LOGGED BY B. Seymour
CHECKED BY R. Quinn

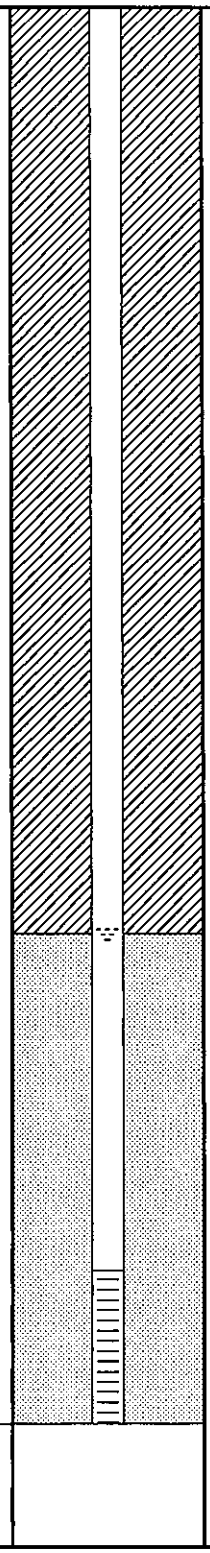
BORING NUMBER STB-3
DATE STARTED 3/13/03
DATE COMPLETED 3/14/03
JOB NUMBER 12000-0-2050

TEST BORING RECORD

Height of riser: 2.5 ft
Top of casing elevation 311.41 ft

C:\TK\LOG~1\DYE1.PL3 RRN-1 12-10-03

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID	Sample Points
308.9		DYE-1 was installed for the injection of Rhodamine WT ground-water dye into the uppermost water-bearing zone to evaluate vertical migration between the uppermost and the intermediate water-bearing zone.			
302.7		No soil samples were collected See test boring records for MW-14 and MW-19 for lithologic descriptions for Dye-1.			
296.4					
290.2					
283.9					
277.7					
271.4					
265.2					
	46.0	top of tan clay Boring terminated at 46.0 feet.			
258.9					



REMARKS:

1)Drilling technique: 0 to 46 ft, 2-inch diameter borehole direct-push technology.
2)1-inch diameter PVC temporary well installed 0 to 46 ft with 5-feet of pre-packed sand pack and well screen.

DRILLED BY	Prosonic	BORING NUMBER	DYE-1
LOGGED BY	R Quinn	DATE STARTED	8/28/03
CHECKED BY	R Seymour	DATE COMPLETED	8/28/03
		JOB NUMBER	12000-0-2050

APPENDIX C

LABORATORY ANALYTICAL RESULTS FROM PRE-CSR INVESTIGATIONS

SOIL

No. [illegible]

CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT NO.: 185754

PROJECT NAME AND LOCATION: Thermoking - Louisville, GA

SAMPLERS: (Signature) Colleen Bonner

PRINT NAME: Colleen Bonner

SAMPLE I.D.	SAMPLE LOCATION	DATE	TIME	MATRIX	NO. OF CONTAINERS	VOCs 8260	Metals	Corrosivity, reactivity, ignitability				REMARKS
SB-100		2/3	1000	soil	4	3	x	x				1 week TAT
EB-1		2/3	1045	aqua	4	3	x					for metals
trip blank		—	—	aqua	2	2						
SB-1		2/3	1146	soil	4	3	1					
SB-2		2/3	1156	soil	4	3	1					
SB-3		2/3	1306	soil	4	3	1					
SB-4		2/3	1324	soil	4	3	1					
SB-5		2/3	1337	soil	4	3	1					
SB-6		2/3	1345	soil	4	3	1					
SB-7		2/3	1416	soil	4	3	1					
SB-8		2/3	1425	soil	4	3	1					
SB-9		2/3	1442	soil	4	3	1					
SB-10		2/3	1505	soil	4	3	1					

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
C Bonner	2/4/00 1330	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Received for Laboratory by: (Signature)	PRINT NAME:	Date/Time

LAB NAME: Quanterra labs

CITY: Tampa FL

COURIER: Federal Express

AIRBILL NO. 815299587300

CUSTODY SEAL NOS: 6116-6117

COOLER NO: —

ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive
Reston, Virginia 20190
(703) 709-6500 • Fax (703) 318-3995
Fax (412) 787-8065

ESC

ATTENTION LAB: SEND ANALYTICAL RESULTS TO THE FOLLOWING ESC STAFF MEMBER: J. Johnson

CA ____ MA ____ PA ____ MN ____

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT: COPY TO ESC FILES

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-1

GC/MS Volatiles

Lot-Sample #...: B0B050108-002 Work Order #...: D88F8101 Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
Prep Date.....: 02/09/00 Analysis Date..: 02/09/00
Prep Batch #...: 0045200
Dilution Factor: 1 Initial Wgt/Vol: 5.92 g Final Wgt/Vol..: 5 mL
% Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.9	ug/kg
Bromobenzene	ND	5.9	ug/kg
Bromochloromethane	ND	5.9	ug/kg
Bromodichloromethane	ND	5.9	ug/kg
Bromoform	ND	5.9	ug/kg
Bromomethane	ND	12	ug/kg
n-Butylbenzene	ND	5.9	ug/kg
sec-Butylbenzene	ND	5.9	ug/kg
tert-Butylbenzene	ND	5.9	ug/kg
Carbon tetrachloride	ND	5.9	ug/kg
Chlorobenzene	ND	5.9	ug/kg
Chlorodibromomethane	ND	5.9	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	5.9	ug/kg
Chloromethane	ND	12	ug/kg
2-Chlorotoluene	ND	5.9	ug/kg
4-Chlorotoluene	ND	5.9	ug/kg
1,2-Dibromo-3-chloro-propane	ND	12	ug/kg
1,2-Dibromoethane	ND	5.9	ug/kg
Dibromomethane	ND	5.9	ug/kg
1,2-Dichlorobenzene	ND	5.9	ug/kg
1,3-Dichlorobenzene	ND	5.9	ug/kg
1,4-Dichlorobenzene	ND	5.9	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.9	ug/kg
1,2-Dichloroethane	ND	5.9	ug/kg
1,1-Dichloroethene	ND	5.9	ug/kg
cis-1,2-Dichloroethene	ND	5.9	ug/kg
trans-1,2-Dichloroethene	ND	5.9	ug/kg
1,2-Dichloropropane	ND	5.9	ug/kg
1,3-Dichloropropane	ND	5.9	ug/kg
2,2-Dichloropropane	ND	5.9	ug/kg
1,1-Dichloropropene	ND	5.9	ug/kg
Ethylbenzene	ND	5.9	ug/kg
Hexachlorobutadiene	ND	5.9	ug/kg
Isopropylbenzene	ND	5.9	ug/kg
p-Isopropyltoluene	ND	5.9	ug/kg

(Continued on next page)

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-1

GC/MS Volatiles

Lot-Sample #...: B0B050108-002 Work Order #...: D88F8101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	12	ug/kg
Naphthalene	ND	5.9	ug/kg
n-Propylbenzene	ND	5.9	ug/kg
Styrene	ND	5.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg
Tetrachloroethene	**11**	**5.9**	**ug/kg**
Toluene	ND	5.9	ug/kg
1,2,3-Trichlorobenzene	ND	5.9	ug/kg
1,2,4-Trichlorobenzene	ND	5.9	ug/kg
1,1,1-Trichloroethane	ND	5.9	ug/kg
1,1,2-Trichloroethane	ND	5.9	ug/kg
Trichloroethene	**160 E**	**5.9**	**ug/kg**
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.9	ug/kg
1,2,4-Trimethylbenzene	ND	5.9	ug/kg
1,3,5-Trimethylbenzene	ND	5.9	ug/kg
Vinyl chloride	ND	12	ug/kg
o-Xylene	ND	5.9	ug/kg
m-Xylene & p-Xylene	ND	5.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	111	(28 - 159)
1,2-Dichloroethane-d4	130	(51 - 168)
Toluene-d8	92	(66 - 152)
Dibromofluoromethane	111	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-2

GC/MS Volatiles

Lot-Sample #...: B0B050108-003 Work Order #...: D88F9101 Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
Prep Date.....: 02/09/00 Analysis Date..: 02/09/00
Prep Batch #...: 0045200
Dilution Factor: 1 Initial Wgt/Vol: 5.87 g Final Wgt/Vol..: 5 mL
% Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.7	ug/kg
Bromobenzene	ND	5.7	ug/kg
Bromochloromethane	ND	5.7	ug/kg
Bromodichloromethane	ND	5.7	ug/kg
Bromoform	ND	5.7	ug/kg
Bromomethane	ND	11	ug/kg
n-Butylbenzene	ND	5.7	ug/kg
sec-Butylbenzene	ND	5.7	ug/kg
tert-Butylbenzene	ND	5.7	ug/kg
Carbon tetrachloride	ND	5.7	ug/kg
Chlorobenzene	ND	5.7	ug/kg
Chlorodibromomethane	ND	5.7	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.7	ug/kg
Chloromethane	ND	11	ug/kg
2-Chlorotoluene	ND	5.7	ug/kg
4-Chlorotoluene	ND	5.7	ug/kg
1,2-Dibromo-3-chloro-propane	ND	11	ug/kg
1,2-Dibromoethane	ND	5.7	ug/kg
Dibromomethane	ND	5.7	ug/kg
1,2-Dichlorobenzene	ND	5.7	ug/kg
1,3-Dichlorobenzene	ND	5.7	ug/kg
1,4-Dichlorobenzene	ND	5.7	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.7	ug/kg
1,2-Dichloroethane	ND	5.7	ug/kg
1,1-Dichloroethene	ND	5.7	ug/kg
cis-1,2-Dichloroethene	ND	5.7	ug/kg
trans-1,2-Dichloroethene	ND	5.7	ug/kg
1,2-Dichloropropane	ND	5.7	ug/kg
1,3-Dichloropropane	ND	5.7	ug/kg
2,2-Dichloropropane	ND	5.7	ug/kg
1,1-Dichloropropene	ND	5.7	ug/kg
Ethylbenzene	ND	5.7	ug/kg
Hexachlorobutadiene	ND	5.7	ug/kg
Isopropylbenzene	ND	5.7	ug/kg
p-Isopropyltoluene	ND	5.7	ug/kg

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ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-2

GC/MS Volatiles

Lot-Sample #...: B0B050108-003 Work Order #...: D88F9101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	11	ug/kg
Naphthalene	ND	5.7	ug/kg
n-Propylbenzene	ND	5.7	ug/kg
Styrene	ND	5.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg
Tetrachloroethene	**13**	**5.7**	**ug/kg**
Toluene	ND	5.7	ug/kg
1,2,3-Trichlorobenzene	ND	5.7	ug/kg
1,2,4-Trichlorobenzene	ND	5.7	ug/kg
1,1,1-Trichloroethane	ND	5.7	ug/kg
1,1,2-Trichloroethane	ND	5.7	ug/kg
Trichloroethene	**15**	**5.7**	**ug/kg**
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.7	ug/kg
1,2,4-Trimethylbenzene	ND	5.7	ug/kg
1,3,5-Trimethylbenzene	ND	5.7	ug/kg
Vinyl chloride	ND	11	ug/kg
o-Xylene	ND	5.7	ug/kg
m-Xylene & p-Xylene	ND	5.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	108	(28 - 159)
1,2-Dichloroethane-d4	115	(51 - 168)
Toluene-d8	97	(66 - 152)
Dibromofluoromethane	104	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-3

GC/MS Volatiles

Lot-Sample #...:	B0B050108-004	**Work Order #...:**	D88FA201	**Matrix.....:**	SOLID
Date Sampled...:	02/03/00	**Date Received..:**	02/05/00		
Prep Date.....:	02/05/00	**Analysis Date..:**	02/11/00		
Prep Batch #...:	0047184				
Dilution Factor:	1	**Initial Wgt/Vol:**	5.92 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	16	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	300	ug/kg
Bromobenzene	ND	300	ug/kg
Bromochloromethane	ND	300	ug/kg
Bromodichloromethane	ND	300	ug/kg
Bromoform	ND	300	ug/kg
Bromomethane	ND	600	ug/kg
n-Butylbenzene	ND	300	ug/kg
sec-Butylbenzene	ND	300	ug/kg
tert-Butylbenzene	ND	300	ug/kg
Carbon tetrachloride	ND	300	ug/kg
Chlorobenzene	ND	300	ug/kg
Chlorodibromomethane	ND	300	ug/kg
Chloroethane	ND	600	ug/kg
Chloroform	ND	300	ug/kg
Chloromethane	ND	600	ug/kg
2-Chlorotoluene	ND	300	ug/kg
4-Chlorotoluene	ND	300	ug/kg
1,2-Dibromo-3-chloro-propane	ND	600	ug/kg
1,2-Dibromoethane	ND	300	ug/kg
Dibromomethane	ND	300	ug/kg
1,2-Dichlorobenzene	ND	300	ug/kg
1,3-Dichlorobenzene	ND	300	ug/kg
1,4-Dichlorobenzene	ND	300	ug/kg
Dichlorodifluoromethane	ND	600	ug/kg
1,1-Dichloroethane	ND	300	ug/kg
1,2-Dichloroethane	ND	300	ug/kg
1,1-Dichloroethene	ND	300	ug/kg
cis-1,2-Dichloroethene	ND	300	ug/kg
trans-1,2-Dichloroethene	ND	300	ug/kg
1,2-Dichloropropane	ND	300	ug/kg
1,3-Dichloropropane	ND	300	ug/kg
2,2-Dichloropropane	ND	300	ug/kg
1,1-Dichloropropene	ND	300	ug/kg
Ethylbenzene	**360**	**300**	**ug/kg**
Hexachlorobutadiene	ND	300	ug/kg
Isopropylbenzene	ND	300	ug/kg
p-Isopropyltoluene	ND	300	ug/kg

(Continued on next page)

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-3

GC/MS Volatiles

Lot-Sample #...: B0B050108-004 Work Order #...: D88FA201 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	600	ug/kg
Naphthalene	ND	300	ug/kg
n-Propylbenzene	ND	300	ug/kg
Styrene	ND	300	ug/kg
1,1,1,2-Tetrachloroethane	ND	300	ug/kg
1,1,2,2-Tetrachloroethane	ND	300	ug/kg
Tetrachloroethene	ND	300	ug/kg
Toluene	ND	300	ug/kg
1,2,3-Trichlorobenzene	ND	300	ug/kg
1,2,4-Trichlorobenzene	ND	300	ug/kg
1,1,1-Trichloroethane	ND	300	ug/kg
1,1,2-Trichloroethane	ND	300	ug/kg
Trichloroethene	ND	300	ug/kg
Trichlorofluoromethane	ND	600	ug/kg
1,2,3-Trichloropropane	ND	300	ug/kg
1,2,4-Trimethylbenzene	ND	300	ug/kg
1,3,5-Trimethylbenzene	ND	300	ug/kg
Vinyl chloride	ND	600	ug/kg
o-Xylene	ND	300	ug/kg
m-Xylene & p-Xylene	**1400**	**300**	**ug/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	92	(57 - 132)
Bromofluorobenzene	93	(58 - 135)
Dibromofluoromethane	89	(57 - 130)
Toluene-d8	95	(61 - 133)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-4

GC/MS Volatiles

Lot-Sample #...: B0B050108-005 Work Order #...: D88FC201 Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
Prep Date.....: 02/14/00 Analysis Date..: 02/14/00
Prep Batch #...: 0047221
Dilution Factor: 1 Initial Wgt/Vol: 5.34 g Final Wgt/Vol..: 5 mL
% Moisture.....: 20 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	6.2	ug/kg
Bromobenzene	ND	6.2	ug/kg
Bromochloromethane	ND	6.2	ug/kg
Bromodichloromethane	ND	6.2	ug/kg
Bromoform	ND	6.2	ug/kg
Bromomethane	ND	12	ug/kg
n-Butylbenzene	ND	6.2	ug/kg
sec-Butylbenzene	ND	6.2	ug/kg
tert-Butylbenzene	ND	6.2	ug/kg
Carbon tetrachloride	ND	6.2	ug/kg
Chlorobenzene	ND	6.2	ug/kg
Chlorodibromomethane	ND	6.2	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	6.2	ug/kg
Chloromethane	ND	12	ug/kg
2-Chlorotoluene	ND	6.2	ug/kg
4-Chlorotoluene	ND	6.2	ug/kg
1,2-Dibromo-3-chloro-propane	ND	12	ug/kg
1,2-Dibromoethane	ND	6.2	ug/kg
Dibromomethane	ND	6.2	ug/kg
1,2-Dichlorobenzene	ND	6.2	ug/kg
1,3-Dichlorobenzene	ND	6.2	ug/kg
1,4-Dichlorobenzene	ND	6.2	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	6.2	ug/kg
1,2-Dichloroethane	ND	6.2	ug/kg
1,1-Dichloroethene	ND	6.2	ug/kg
cis-1,2-Dichloroethene	ND	6.2	ug/kg
trans-1,2-Dichloroethene	ND	6.2	ug/kg
1,2-Dichloropropane	ND	6.2	ug/kg
1,3-Dichloropropane	ND	6.2	ug/kg
2,2-Dichloropropane	ND	6.2	ug/kg
1,1-Dichloropropene	ND	6.2	ug/kg
Ethylbenzene	ND	6.2	ug/kg
Hexachlorobutadiene	ND	6.2	ug/kg
Isopropylbenzene	ND	6.2	ug/kg
p-Isopropyltoluene	ND	6.2	ug/kg

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ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-4

GC/MS Volatiles

Lot-Sample #...: B0B050108-005 Work Order #...: D88FC201 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	12	ug/kg
Naphthalene	ND	6.2	ug/kg
n-Propylbenzene	ND	6.2	ug/kg
Styrene	ND	6.2	ug/kg
1,1,1,2-Tetrachloroethane	ND	6.2	ug/kg
1,1,2,2-Tetrachloroethane	ND	6.2	ug/kg
Tetrachloroethene	ND	6.2	ug/kg
Toluene	ND	6.2	ug/kg
1,2,3-Trichlorobenzene	ND	6.2	ug/kg
1,2,4-Trichlorobenzene	ND	6.2	ug/kg
1,1,1-Trichloroethane	ND	6.2	ug/kg
1,1,2-Trichloroethane	ND	6.2	ug/kg
Trichloroethene	ND	6.2	ug/kg
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	6.2	ug/kg
1,2,4-Trimethylbenzene	ND	6.2	ug/kg
1,3,5-Trimethylbenzene	ND	6.2	ug/kg
Vinyl chloride	ND	12	ug/kg
o-Xylene	ND	6.2	ug/kg
m-Xylene & p-Xylene	9.6	6.2	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	100	(28 - 159)
1,2-Dichloroethane-d4	115	(51 - 168)
Toluene-d8	100	(66 - 152)
Dibromofluoromethane	106	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-5

GC/MS Volatiles

Lot-Sample #...:	B0B050108-006	Work Order #...:	D88FD101	Matrix.....:	SOLID
Date Sampled...:	02/03/00	Date Received..:	02/05/00		
Prep Date.....:	02/09/00	Analysis Date..:	02/09/00		
Prep Batch #...:	0045200				
Dilution Factor:	1	Initial Wgt/Vol:	6.43 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	15	Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.9	ug/kg
Bromobenzene	ND	5.9	ug/kg
Bromochloromethane	ND	5.9	ug/kg
Bromodichloromethane	ND	5.9	ug/kg
Bromoform	ND	5.9	ug/kg
Bromomethane	ND	12	ug/kg
n-Butylbenzene	ND	5.9	ug/kg
sec-Butylbenzene	ND	5.9	ug/kg
tert-Butylbenzene	ND	5.9	ug/kg
Carbon tetrachloride	ND	5.9	ug/kg
Chlorobenzene	ND	5.9	ug/kg
Chlorodibromomethane	ND	5.9	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	5.9	ug/kg
Chloromethane	ND	12	ug/kg
2-Chlorotoluene	ND	5.9	ug/kg
4-Chlorotoluene	ND	5.9	ug/kg
1,2-Dibromo-3-chloro-propane	ND	12	ug/kg
1,2-Dibromoethane	ND	5.9	ug/kg
Dibromomethane	ND	5.9	ug/kg
1,2-Dichlorobenzene	ND	5.9	ug/kg
1,3-Dichlorobenzene	ND	5.9	ug/kg
1,4-Dichlorobenzene	ND	5.9	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.9	ug/kg
1,2-Dichloroethane	ND	5.9	ug/kg
1,1-Dichloroethene	ND	5.9	ug/kg
cis-1,2-Dichloroethene	ND	5.9	ug/kg
trans-1,2-Dichloroethene	ND	5.9	ug/kg
1,2-Dichloropropane	ND	5.9	ug/kg
1,3-Dichloropropane	ND	5.9	ug/kg
2,2-Dichloropropane	ND	5.9	ug/kg
1,1-Dichloropropene	ND	5.9	ug/kg
Ethylbenzene	ND	5.9	ug/kg
Hexachlorobutadiene	ND	5.9	ug/kg
Isopropylbenzene	ND	5.9	ug/kg
p-Isopropyltoluene	ND	5.9	ug/kg

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ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-5

GC/MS Volatiles

Lot-Sample #...: B0B050108-006 Work Order #...: D88FD101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	12	ug/kg
Naphthalene	ND	5.9	ug/kg
n-Propylbenzene	ND	5.9	ug/kg
Styrene	ND	5.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg
Tetrachloroethene	**10**	**5.9**	**ug/kg**
Toluene	ND	5.9	ug/kg
1,2,3-Trichlorobenzene	ND	5.9	ug/kg
1,2,4-Trichlorobenzene	ND	5.9	ug/kg
1,1,1-Trichloroethane	ND	5.9	ug/kg
1,1,2-Trichloroethane	ND	5.9	ug/kg
Trichloroethene	**12**	**5.9**	**ug/kg**
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.9	ug/kg
1,2,4-Trimethylbenzene	ND	5.9	ug/kg
1,3,5-Trimethylbenzene	ND	5.9	ug/kg
Vinyl chloride	ND	12	ug/kg
o-Xylene	ND	5.9	ug/kg
m-Xylene & p-Xylene	ND	5.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	105	(28 - 159)
1,2-Dichloroethane-d4	116	(51 - 168)
Toluene-d8	97	(66 - 152)
Dibromofluoromethane	104	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-6

GC/MS Volatiles

Lot-Sample #...: B0B050108-007 Work Order #...: D88FE101 Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
Prep Date.....: 02/09/00 Analysis Date..: 02/09/00
Prep Batch #...: 0045200
Dilution Factor: 1 Initial Wgt/Vol: 6.2 g Final Wgt/Vol..: 5 mL
% Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.7	ug/kg
Bromobenzene	ND	5.7	ug/kg
Bromochloromethane	ND	5.7	ug/kg
Bromodichloromethane	ND	5.7	ug/kg
Bromoform	ND	5.7	ug/kg
Bromomethane	ND	11	ug/kg
n-Butylbenzene	ND	5.7	ug/kg
sec-Butylbenzene	ND	5.7	ug/kg
tert-Butylbenzene	ND	5.7	ug/kg
Carbon tetrachloride	ND	5.7	ug/kg
Chlorobenzene	ND	5.7	ug/kg
Chlorodibromomethane	ND	5.7	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.7	ug/kg
Chloromethane	ND	11	ug/kg
2-Chlorotoluene	ND	5.7	ug/kg
4-Chlorotoluene	ND	5.7	ug/kg
1,2-Dibromo-3-chloro-propane	ND	11	ug/kg
1,2-Dibromoethane	ND	5.7	ug/kg
Dibromomethane	ND	5.7	ug/kg
1,2-Dichlorobenzene	ND	5.7	ug/kg
1,3-Dichlorobenzene	ND	5.7	ug/kg
1,4-Dichlorobenzene	ND	5.7	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.7	ug/kg
1,2-Dichloroethane	ND	5.7	ug/kg
1,1-Dichloroethene	ND	5.7	ug/kg
cis-1,2-Dichloroethene	ND	5.7	ug/kg
trans-1,2-Dichloroethene	ND	5.7	ug/kg
1,2-Dichloropropane	ND	5.7	ug/kg
1,3-Dichloropropane	ND	5.7	ug/kg
2,2-Dichloropropane	ND	5.7	ug/kg
1,1-Dichloropropene	ND	5.7	ug/kg
Ethylbenzene	ND	5.7	ug/kg
Hexachlorobutadiene	ND	5.7	ug/kg
Isopropylbenzene	ND	5.7	ug/kg
p-Isopropyltoluene	ND	5.7	ug/kg

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ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-6

GC/MS Volatiles

Lot-Sample #...: B0B050108-007 Work Order #...: D88FE101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	11	ug/kg
Naphthalene	ND	5.7	ug/kg
n-Propylbenzene	ND	5.7	ug/kg
Styrene	ND	5.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg
Tetrachloroethene	**8.4**	**5.7**	**ug/kg**
Toluene	ND	5.7	ug/kg
1,2,3-Trichlorobenzene	ND	5.7	ug/kg
1,2,4-Trichlorobenzene	ND	5.7	ug/kg
1,1,1-Trichloroethane	ND	5.7	ug/kg
1,1,2-Trichloroethane	ND	5.7	ug/kg
Trichloroethene	**9.7**	**5.7**	**ug/kg**
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.7	ug/kg
1,2,4-Trimethylbenzene	ND	5.7	ug/kg
1,3,5-Trimethylbenzene	ND	5.7	ug/kg
Vinyl chloride	ND	11	ug/kg
o-Xylene	ND	5.7	ug/kg
m-Xylene & p-Xylene	ND	5.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(28 - 159)
1,2-Dichloroethane-d4	107	(51 - 168)
Toluene-d8	100	(66 - 152)
Dibromofluoromethane	100	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-7

GC/MS Volatiles

Lot-Sample #...: B0B050108-008	Work Order #...: D88FF101	Matrix.....: SOLID
Date Sampled...: 02/03/00	Date Received..: 02/05/00	
Prep Date.....: 02/09/00	Analysis Date..: 02/09/00	
Prep Batch #...: 0045200		
Dilution Factor: 1	Initial Wgt/Vol: 6.02 g	Final Wgt/Vol..: 5 mL
% Moisture.....: 11	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.6	ug/kg
Bromobenzene	ND	5.6	ug/kg
Bromochloromethane	ND	5.6	ug/kg
Bromodichloromethane	ND	5.6	ug/kg
Bromoform	ND	5.6	ug/kg
Bromomethane	ND	11	ug/kg
n-Butylbenzene	ND	5.6	ug/kg
sec-Butylbenzene	ND	5.6	ug/kg
tert-Butylbenzene	ND	5.6	ug/kg
Carbon tetrachloride	ND	5.6	ug/kg
Chlorobenzene	ND	5.6	ug/kg
Chlorodibromomethane	ND	5.6	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.6	ug/kg
Chloromethane	ND	11	ug/kg
2-Chlorotoluene	ND	5.6	ug/kg
4-Chlorotoluene	ND	5.6	ug/kg
1,2-Dibromo-3-chloro-propane	ND	11	ug/kg
1,2-Dibromoethane	ND	5.6	ug/kg
Dibromomethane	ND	5.6	ug/kg
1,2-Dichlorobenzene	ND	5.6	ug/kg
1,3-Dichlorobenzene	ND	5.6	ug/kg
1,4-Dichlorobenzene	ND	5.6	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.6	ug/kg
1,2-Dichloroethane	ND	5.6	ug/kg
1,1-Dichloroethene	ND	5.6	ug/kg
cis-1,2-Dichloroethene	ND	5.6	ug/kg
trans-1,2-Dichloroethene	ND	5.6	ug/kg
1,2-Dichloropropane	ND	5.6	ug/kg
1,3-Dichloropropane	ND	5.6	ug/kg
2,2-Dichloropropane	ND	5.6	ug/kg
1,1-Dichloropropene	ND	5.6	ug/kg
Ethylbenzene	ND	5.6	ug/kg
Hexachlorobutadiene	ND	5.6	ug/kg
Isopropylbenzene	ND	5.6	ug/kg
p-Isopropyltoluene	ND	5.6	ug/kg

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ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-7

GC/MS Volatiles

Lot-Sample #...: B0B050108-008 Work Order #...: D88FF101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	11	ug/kg
Naphthalene	ND	5.6	ug/kg
n-Propylbenzene	ND	5.6	ug/kg
Styrene	ND	5.6	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.6	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg
Tetrachloroethene	**10**	**5.6**	**ug/kg**
Toluene	ND	5.6	ug/kg
1,2,3-Trichlorobenzene	ND	5.6	ug/kg
1,2,4-Trichlorobenzene	ND	5.6	ug/kg
1,1,1-Trichloroethane	ND	5.6	ug/kg
1,1,2-Trichloroethane	ND	5.6	ug/kg
Trichloroethene	**14**	**5.6**	**ug/kg**
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.6	ug/kg
1,2,4-Trimethylbenzene	ND	5.6	ug/kg
1,3,5-Trimethylbenzene	ND	5.6	ug/kg
Vinyl chloride	ND	11	ug/kg
o-Xylene	ND	5.6	ug/kg
m-Xylene & p-Xylene	ND	5.6	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(28 - 159)
1,2-Dichloroethane-d4	110	(51 - 168)
Toluene-d8	100	(66 - 152)
Dibromofluoromethane	103	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-8

GC/MS Volatiles

Lot-Sample #...: B0B050108-009	Work Order #...: D88FG101	Matrix.....: SOLID	
Date Sampled...: 02/03/00	Date Received..: 02/05/00		
Prep Date.....: 02/09/00	Analysis Date..: 02/09/00		
Prep Batch #...: 0045200			
Dilution Factor: 1	Initial Wgt/Vol: 6.09 g	Final Wgt/Vol..: 5 mL	
% Moisture.....: 14	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.8	ug/kg
Bromobenzene	ND	5.8	ug/kg
Bromochloromethane	ND	5.8	ug/kg
Bromodichloromethane	ND	5.8	ug/kg
Bromoform	ND	5.8	ug/kg
Bromomethane	ND	12	ug/kg
n-Butylbenzene	ND	5.8	ug/kg
sec-Butylbenzene	ND	5.8	ug/kg
tert-Butylbenzene	ND	5.8	ug/kg
Carbon tetrachloride	ND	5.8	ug/kg
Chlorobenzene	ND	5.8	ug/kg
Chlorodibromomethane	ND	5.8	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	5.8	ug/kg
Chloromethane	ND	12	ug/kg
2-Chlorotoluene	ND	5.8	ug/kg
4-Chlorotoluene	ND	5.8	ug/kg
1,2-Dibromo-3-chloro-propane	ND	12	ug/kg
1,2-Dibromoethane	ND	5.8	ug/kg
Dibromomethane	ND	5.8	ug/kg
1,2-Dichlorobenzene	ND	5.8	ug/kg
1,3-Dichlorobenzene	ND	5.8	ug/kg
1,4-Dichlorobenzene	ND	5.8	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.8	ug/kg
1,2-Dichloroethane	ND	5.8	ug/kg
1,1-Dichloroethene	ND	5.8	ug/kg
cis-1,2-Dichloroethene	ND	5.8	ug/kg
trans-1,2-Dichloroethene	ND	5.8	ug/kg
1,2-Dichloropropane	ND	5.8	ug/kg
1,3-Dichloropropane	ND	5.8	ug/kg
2,2-Dichloropropane	ND	5.8	ug/kg
1,1-Dichloropropene	ND	5.8	ug/kg
Ethylbenzene	ND	5.8	ug/kg
Hexachlorobutadiene	ND	5.8	ug/kg
Isopropylbenzene	ND	5.8	ug/kg
p-Isopropyltoluene	ND	5.8	ug/kg

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ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-8

GC/MS Volatiles

Lot-Sample #...: B0B050108-009 Work Order #...: D88FG101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	12	ug/kg
Naphthalene	ND	5.8	ug/kg
n-Propylbenzene	ND	5.8	ug/kg
Styrene	ND	5.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg
Tetrachloroethene	**8.2**	**5.8**	**ug/kg**
Toluene	ND	5.8	ug/kg
1,2,3-Trichlorobenzene	ND	5.8	ug/kg
1,2,4-Trichlorobenzene	ND	5.8	ug/kg
1,1,1-Trichloroethane	ND	5.8	ug/kg
1,1,2-Trichloroethane	ND	5.8	ug/kg
Trichloroethene	**9.3**	**5.8**	**ug/kg**
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.8	ug/kg
1,2,4-Trimethylbenzene	ND	5.8	ug/kg
1,3,5-Trimethylbenzene	ND	5.8	ug/kg
Vinyl chloride	ND	12	ug/kg
o-Xylene	ND	5.8	ug/kg
m-Xylene & p-Xylene	ND	5.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(28 - 159)
1,2-Dichloroethane-d4	114	(51 - 168)
Toluene-d8	97	(66 - 152)
Dibromofluoromethane	104	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-9

GC/MS Volatiles

Lot-Sample #...: B0B050108-010	Work Order #...: D88FH101	Matrix.....: SOLID
Date Sampled...: 02/03/00	Date Received..: 02/05/00	
Prep Date.....: 02/09/00	Analysis Date..: 02/09/00	
Prep Batch #...: 0045200		
Dilution Factor: 1	Initial Wgt/Vol: 6.06 g	Final Wgt/Vol..: 5 mL
% Moisture.....: 12	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.7	ug/kg
Bromobenzene	ND	5.7	ug/kg
Bromochloromethane	ND	5.7	ug/kg
Bromodichloromethane	ND	5.7	ug/kg
Bromoform	ND	5.7	ug/kg
Bromomethane	ND	11	ug/kg
n-Butylbenzene	ND	5.7	ug/kg
sec-Butylbenzene	ND	5.7	ug/kg
tert-Butylbenzene	ND	5.7	ug/kg
Carbon tetrachloride	ND	5.7	ug/kg
Chlorobenzene	ND	5.7	ug/kg
Chlorodibromomethane	ND	5.7	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.7	ug/kg
Chloromethane	ND	11	ug/kg
2-Chlorotoluene	ND	5.7	ug/kg
4-Chlorotoluene	ND	5.7	ug/kg
1,2-Dibromo-3-chloro-propane	ND	11	ug/kg
1,2-Dibromoethane	ND	5.7	ug/kg
Dibromomethane	ND	5.7	ug/kg
1,2-Dichlorobenzene	ND	5.7	ug/kg
1,3-Dichlorobenzene	ND	5.7	ug/kg
1,4-Dichlorobenzene	ND	5.7	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.7	ug/kg
1,2-Dichloroethane	ND	5.7	ug/kg
1,1-Dichloroethene	ND	5.7	ug/kg
cis-1,2-Dichloroethene	ND	5.7	ug/kg
trans-1,2-Dichloroethene	ND	5.7	ug/kg
1,2-Dichloropropane	ND	5.7	ug/kg
1,3-Dichloropropane	ND	5.7	ug/kg
2,2-Dichloropropane	ND	5.7	ug/kg
1,1-Dichloropropene	ND	5.7	ug/kg
Ethylbenzene	ND	5.7	ug/kg
Hexachlorobutadiene	ND	5.7	ug/kg
Isopropylbenzene	ND	5.7	ug/kg
p-Isopropyltoluene	ND	5.7	ug/kg

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ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-9

GC/MS Volatiles

Lot-Sample #...: B0B050108-010 Work Order #...: D88FH101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	11	ug/kg
Naphthalene	ND	5.7	ug/kg
n-Propylbenzene	ND	5.7	ug/kg
Styrene	ND	5.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg
Tetrachloroethene	**9.3**	**5.7**	**ug/kg**
Toluene	ND	5.7	ug/kg
1,2,3-Trichlorobenzene	ND	5.7	ug/kg
1,2,4-Trichlorobenzene	ND	5.7	ug/kg
1,1,1-Trichloroethane	ND	5.7	ug/kg
1,1,2-Trichloroethane	ND	5.7	ug/kg
Trichloroethene	**11**	**5.7**	**ug/kg**
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.7	ug/kg
1,2,4-Trimethylbenzene	ND	5.7	ug/kg
1,3,5-Trimethylbenzene	ND	5.7	ug/kg
Vinyl chloride	ND	11	ug/kg
o-Xylene	ND	5.7	ug/kg
m-Xylene & p-Xylene	ND	5.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(28 - 159)
1,2-Dichloroethane-d4	110	(51 - 168)
Toluene-d8	101	(66 - 152)
Dibromofluoromethane	103	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-10

GC/MS Volatiles

Lot-Sample #...: B0B050108-011	Work Order #...: D88FJ101	Matrix.....: SOLID	
Date Sampled...: 02/03/00	Date Received..: 02/05/00		
Prep Date.....: 02/09/00	Analysis Date..: 02/09/00		
Prep Batch #...: 0045200			
Dilution Factor: 1	Initial Wgt/Vol: 5.52 g	Final Wgt/Vol..: 5 mL	
% Moisture.....: 11	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.6	ug/kg
Bromobenzene	ND	5.6	ug/kg
Bromochloromethane	ND	5.6	ug/kg
Bromodichloromethane	ND	5.6	ug/kg
Bromoform	ND	5.6	ug/kg
Bromomethane	ND	11	ug/kg
n-Butylbenzene	ND	5.6	ug/kg
sec-Butylbenzene	ND	5.6	ug/kg
tert-Butylbenzene	ND	5.6	ug/kg
Carbon tetrachloride	ND	5.6	ug/kg
Chlorobenzene	ND	5.6	ug/kg
Chlorodibromomethane	ND	5.6	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.6	ug/kg
Chloromethane	ND	11	ug/kg
2-Chlorotoluene	ND	5.6	ug/kg
4-Chlorotoluene	ND	5.6	ug/kg
1,2-Dibromo-3-chloro-propane	ND	11	ug/kg
1,2-Dibromoethane	ND	5.6	ug/kg
Dibromomethane	ND	5.6	ug/kg
1,2-Dichlorobenzene	ND	5.6	ug/kg
1,3-Dichlorobenzene	ND	5.6	ug/kg
1,4-Dichlorobenzene	ND	5.6	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.6	ug/kg
1,2-Dichloroethane	ND	5.6	ug/kg
1,1-Dichloroethene	ND	5.6	ug/kg
cis-1,2-Dichloroethene	ND	5.6	ug/kg
trans-1,2-Dichloroethene	ND	5.6	ug/kg
1,2-Dichloropropane	ND	5.6	ug/kg
1,3-Dichloropropane	ND	5.6	ug/kg
2,2-Dichloropropane	ND	5.6	ug/kg
1,1-Dichloropropene	ND	5.6	ug/kg
Ethylbenzene	ND	5.6	ug/kg
Hexachlorobutadiene	ND	5.6	ug/kg
Isopropylbenzene	ND	5.6	ug/kg
p-Isopropyltoluene	ND	5.6	ug/kg

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ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-10

GC/MS Volatiles

Lot-Sample #...: B0B050108-011 Work Order #...: D88FJ101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	11	ug/kg
Naphthalene	ND	5.6	ug/kg
n-Propylbenzene	ND	5.6	ug/kg
Styrene	ND	5.6	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.6	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg
Tetrachloroethene	**9.4**	**5.6**	**ug/kg**
Toluene	ND	5.6	ug/kg
1,2,3-Trichlorobenzene	ND	5.6	ug/kg
1,2,4-Trichlorobenzene	ND	5.6	ug/kg
1,1,1-Trichloroethane	ND	5.6	ug/kg
1,1,2-Trichloroethane	ND	5.6	ug/kg
Trichloroethene	**11**	**5.6**	**ug/kg**
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.6	ug/kg
1,2,4-Trimethylbenzene	ND	5.6	ug/kg
1,3,5-Trimethylbenzene	ND	5.6	ug/kg
Vinyl chloride	ND	11	ug/kg
o-Xylene	ND	5.6	ug/kg
m-Xylene & p-Xylene	ND	5.6	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(28 - 159)
1,2-Dichloroethane-d4	113	(51 - 168)
Toluene-d8	100	(66 - 152)
Dibromofluoromethane	103	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-100

GC/MS Volatiles

Lot-Sample #...: B0B050108-001 Work Order #...: D88F7101 Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
Prep Date.....: 02/09/00 Analysis Date..: 02/09/00
Prep Batch #...: 0045200
Dilution Factor: 1 Initial Wgt/Vol: 4.33 g Final Wgt/Vol..: 5 mL
% Moisture.....: 26 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	7.8	ug/kg
Bromobenzene	ND	7.8	ug/kg
Bromochloromethane	ND	7.8	ug/kg
Bromodichloromethane	ND	7.8	ug/kg
Bromoform	ND	7.8	ug/kg
Bromomethane	ND	16	ug/kg
n-Butylbenzene	ND	7.8	ug/kg
sec-Butylbenzene	ND	7.8	ug/kg
tert-Butylbenzene	ND	7.8	ug/kg
Carbon tetrachloride	ND	7.8	ug/kg
Chlorobenzene	ND	7.8	ug/kg
Chlorodibromomethane	ND	7.8	ug/kg
Chloroethane	ND	16	ug/kg
Chloroform	ND	7.8	ug/kg
Chloromethane	ND	16	ug/kg
2-Chlorotoluene	ND	7.8	ug/kg
4-Chlorotoluene	ND	7.8	ug/kg
1,2-Dibromo-3-chloro-propane	ND	16	ug/kg
1,2-Dibromoethane	ND	7.8	ug/kg
Dibromomethane	ND	7.8	ug/kg
1,2-Dichlorobenzene	ND	7.8	ug/kg
1,3-Dichlorobenzene	ND	7.8	ug/kg
1,4-Dichlorobenzene	ND	7.8	ug/kg
Dichlorodifluoromethane	ND	16	ug/kg
1,1-Dichloroethane	ND	7.8	ug/kg
1,2-Dichloroethane	ND	7.8	ug/kg
1,1-Dichloroethene	ND	7.8	ug/kg
cis-1,2-Dichloroethene	ND	7.8	ug/kg
trans-1,2-Dichloroethene	ND	7.8	ug/kg
1,2-Dichloropropane	ND	7.8	ug/kg
1,3-Dichloropropane	ND	7.8	ug/kg
2,2-Dichloropropane	ND	7.8	ug/kg
1,1-Dichloropropene	ND	7.8	ug/kg
Ethylbenzene	ND	7.8	ug/kg
Hexachlorobutadiene	ND	7.8	ug/kg
Isopropylbenzene	ND	7.8	ug/kg
p-Isopropyltoluene	ND	7.8	ug/kg

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ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-100

GC/MS Volatiles

Lot-Sample #...: B0B050108-001 Work Order #...: D88F7101 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	16	ug/kg
Naphthalene	ND	7.8	ug/kg
n-Propylbenzene	ND	7.8	ug/kg
Styrene	ND	7.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	7.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	7.8	ug/kg
Tetrachloroethene	22	**7.8**	**ug/kg**
Toluene	ND	7.8	ug/kg
1,2,3-Trichlorobenzene	ND	7.8	ug/kg
1,2,4-Trichlorobenzene	ND	7.8	ug/kg
1,1,1-Trichloroethane	ND	7.8	ug/kg
1,1,2-Trichloroethane	ND	7.8	ug/kg
Trichloroethene	27	**7.8**	**ug/kg**
Trichlorofluoromethane	ND	16	ug/kg
1,2,3-Trichloropropane	ND	7.8	ug/kg
1,2,4-Trimethylbenzene	ND	7.8	ug/kg
1,3,5-Trimethylbenzene	ND	7.8	ug/kg
Vinyl chloride	ND	16	ug/kg
o-Xylene	ND	7.8	ug/kg
m-Xylene & p-Xylene	9.5	**7.8**	**ug/kg**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	113	(28 - 159)
1,2-Dichloroethane-d4	114	(51 - 168)
Toluene-d8	94	(66 - 152)
Dibromofluoromethane	104	(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: EB-1

GC/MS Volatiles

Lot-Sample #...: B0B050108-012 Work Order #...: D88FK101 Matrix.....: WATER
Date Sampled...: 02/03/00 Date Received..: 02/05/00
Prep Date.....: 02/07/00 Analysis Date..: 02/08/00
Prep Batch #...: 0041166
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L

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ENVIRONMENTAL STRATEGIES

Client Sample ID: EB-1

GC/MS Volatiles

Lot-Sample #...: B0B050108-012 Work Order #...: D88FK101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	2.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	97	(80 - 120)
1,2-Dichloroethane-d4	112	(77 - 131)
Toluene-d8	101	(80 - 120)
Dibromofluoromethane	103	(80 - 125)

ENVIRONMENTAL STRATEGIES

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: B0B050108-013	**Work Order #...:** D88FL101	**Matrix.....:** WATER
Date Sampled...: 02/03/00	**Date Received..:** 02/05/00	
Prep Date.....: 02/07/00	**Analysis Date..:** 02/08/00	
Prep Batch #...: 0041166		
Dilution Factor: 1	**Initial Wgt/Vol:** 25 mL	**Final Wgt/Vol..:** 25 mL
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L

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ENVIRONMENTAL STRATEGIES

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: B0B050108-013 **Work Order #...:** D88FL101 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	2.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(80 - 120)
1,2-Dichloroethane-d4	110	(77 - 131)
Toluene-d8	102	(80 - 120)
Dibromofluoromethane	103	(80 - 125)

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-100

TOTAL Metals

Lot-Sample #...: B0B050108-001
Date Sampled...: 02/03/00
% Moisture.....: 26

Date Received..: 02/05/00

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.13 Dilution Factor: 1 Instrument ID..: CV	mg/kg	SW846 7471A Analysis Time..: 16:51	02/08/00 Analyst ID.....: 001702	D88F710A
Prep Batch #...: 0039127						
Arsenic	ND	0.34 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:33	02/08-02/09/00 Analyst ID.....: 000896	D88F7103
Lead	**1.6**	**0.34** Dilution Factor: 1 Instrument ID..: P2	**mg/kg**	**SW846 6010B** Analysis Time..: 14:33	**02/08-02/09/00** Analyst ID.....: 000896	**D88F7104**
Barium	**15.8**	**6.7** Dilution Factor: 1 Instrument ID..: P2	**mg/kg**	**SW846 6010B** Analysis Time..: 14:33	**02/08-02/09/00** Analyst ID.....: 000896	**D88F7106**
Selenium	ND	0.34 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:33	02/08-02/09/00 Analyst ID.....: 000896	D88F7105
Cadmium	ND	0.67 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:33	02/08-02/09/00 Analyst ID.....: 000896	D88F7107
Chromium	**2.4**	**1.3** Dilution Factor: 1 Instrument ID..: P2	**mg/kg**	**SW846 6010B** Analysis Time..: 14:33	**02/08-02/09/00** Analyst ID.....: 000896	**D88F7108**
Silver	ND	1.3 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:33	02/08-02/09/00 Analyst ID.....: 000896	D88F7109

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-1

TOTAL Metals

Lot-Sample #...: B0B050108-002
Date Sampled...: 02/03/00
% Moisture.....: 15

Date Received..: 02/05/00

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.12 Dilution Factor: 1 Instrument ID..: CV	mg/kg	SW846 7471A Analysis Time..: 16:53	02/08/00 Analyst ID.....: 001702	D88F810A
Prep Batch #...: 0039127						
Arsenic	1.9	0.29 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:50	02/08-02/09/00 Analyst ID.....: 000896	D88F8103
Lead	3.6	0.29 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:50	02/08-02/09/00 Analyst ID.....: 000896	D88F8104
Barium	ND	5.9 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:50	02/08-02/09/00 Analyst ID.....: 000896	D88F8106
Selenium	1.3	0.29 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:50	02/08-02/09/00 Analyst ID.....: 000896	D88F8105
Cadmium	ND	0.59 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:50	02/08-02/09/00 Analyst ID.....: 000896	D88F8107
Chromium	22.3	1.2 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:50	02/08-02/09/00 Analyst ID.....: 000896	D88F8108
Silver	ND	1.2 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:50	02/08-02/09/00 Analyst ID.....: 000896	D88F8109

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-2

TOTAL Metals

Lot-Sample #...: B0B050108-003
Date Sampled...: 02/03/00 Date Received..: 02/05/00 Matrix.....: SOLID
% Moisture.....: 13

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	0.17	0.11 Dilution Factor: 1 Instrument ID..: CV	mg/kg	SW846 7471A Analysis Time..: 16:54	02/08/00 Analyst ID.....: 001702	D88F910A
Prep Batch #...: 0039127						
Arsenic	1.9	0.29 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:55	02/08-02/09/00 Analyst ID.....: 000896	D88F9103
Lead	4.1	0.29 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:55	02/08-02/09/00 Analyst ID.....: 000896	D88F9104
Barium	24.6	5.7 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:55	02/08-02/09/00 Analyst ID.....: 000896	D88F9106
Selenium	0.44	0.29 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:55	02/08-02/09/00 Analyst ID.....: 000896	D88F9105
Cadmium	ND	0.57 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:55	02/08-02/09/00 Analyst ID.....: 000896	D88F9107
Chromium	13.2	1.1 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:55	02/08-02/09/00 Analyst ID.....: 000896	D88F9108
Silver	ND	1.1 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 14:55	02/08-02/09/00 Analyst ID.....: 000896	D88F9109

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-3

TOTAL Metals

Lot-Sample #...: B0B050108-004
Date Sampled...: 02/03/00
% Moisture.....: 16

Date Received..: 02/05/00

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.12 Dilution Factor: 1 Instrument ID..: CV	mg/kg	SW846 7471A Analysis Time..: 16:55	02/08/00 Analyst ID.....: 001702	D88FA10A
Prep Batch #...: 0039127						
Arsenic	1.6	0.30 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:01	02/08-02/09/00 Analyst ID.....: 000896	D88FA103
Lead	3.5	0.30 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:01	02/08-02/09/00 Analyst ID.....: 000896	D88FA104
Barium	14.8	6.0 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:01	02/08-02/09/00 Analyst ID.....: 000896	D88FA106
Selenium	0.55	0.30 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:01	02/08-02/09/00 Analyst ID.....: 000896	D88FA105
Cadmium	ND	0.60 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:01	02/08-02/09/00 Analyst ID.....: 000896	D88FA107
Chromium	14.0	1.2 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:01	02/08-02/09/00 Analyst ID.....: 000896	D88FA108
Silver	ND	1.2 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:01	02/08-02/09/00 Analyst ID.....: 000896	D88FA109

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-4

TOTAL Metals

Lot-Sample #...: B0B050108-005
Date Sampled...: 02/03/00 Date Received..: 02/05/00 Matrix.....: SOLID
% Moisture.....: 20

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.12	mg/kg	SW846 7471A	02/08/00	D88FC10A
		Dilution Factor: 1		Analysis Time..: 17:00	Analyst ID.....: 001702	
		Instrument ID..: CV				
Prep Batch #...: 0039127						
Arsenic	2.7	0.31	mg/kg	SW846 6010B	02/08-02/09/00	D88FC103
		Dilution Factor: 1		Analysis Time..: 15:06	Analyst ID.....: 000896	
		Instrument ID..: P2				
Lead	4.2	0.31	mg/kg	SW846 6010B	02/08-02/09/00	D88FC104
		Dilution Factor: 1		Analysis Time..: 15:06	Analyst ID.....: 000896	
		Instrument ID..: P2				
Barium	6.9	6.2	mg/kg	SW846 6010B	02/08-02/09/00	D88FC106
		Dilution Factor: 1		Analysis Time..: 15:06	Analyst ID.....: 000896	
		Instrument ID..: P2				
Selenium	1.1	0.31	mg/kg	SW846 6010B	02/08-02/09/00	D88FC105
		Dilution Factor: 1		Analysis Time..: 15:06	Analyst ID.....: 000896	
		Instrument ID..: P2				
Cadmium	ND	0.62	mg/kg	SW846 6010B	02/08-02/09/00	D88FC107
		Dilution Factor: 1		Analysis Time..: 15:06	Analyst ID.....: 000896	
		Instrument ID..: P2				
Chromium	21.3	1.2	mg/kg	SW846 6010B	02/08-02/09/00	D88FC108
		Dilution Factor: 1		Analysis Time..: 15:06	Analyst ID.....: 000896	
		Instrument ID..: P2				
Silver	ND	1.2	mg/kg	SW846 6010B	02/08-02/09/00	D88FC109
		Dilution Factor: 1		Analysis Time..: 15:06	Analyst ID.....: 000896	
		Instrument ID..: P2				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-5

TOTAL Metals

Lot-Sample #...: B0B050108-006
Date Sampled...: 02/03/00 Date Received..: 02/05/00 Matrix.....: SOLID
% Moisture.....: 15

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.12 Dilution Factor: 1 Instrument ID..: CV	mg/kg	SW846 7471A Analysis Time..: 17:02	02/08/00 Analyst ID.....: 001702	D88FD10A
Prep Batch #...: 0039127						
Arsenic	1.8	0.30 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:23	02/08-02/09/00 Analyst ID.....: 000896	D88FD103
Lead	3.4	0.30 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:23	02/08-02/09/00 Analyst ID.....: 000896	D88FD104
Barium	18.4	5.9 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:23	02/08-02/09/00 Analyst ID.....: 000896	D88FD106
Selenium	0.63	0.30 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:23	02/08-02/09/00 Analyst ID.....: 000896	D88FD105
Cadmium	ND	0.59 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:23	02/08-02/09/00 Analyst ID.....: 000896	D88FD107
Chromium	13.6	1.2 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:23	02/08-02/09/00 Analyst ID.....: 000896	D88FD108
Silver	ND	1.2 Dilution Factor: 1 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 15:23	02/08-02/09/00 Analyst ID.....: 000896	D88FD109

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-6

TOTAL Metals

Lot-Sample #...: B0B050108-007 Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 13

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.11	mg/kg	SW846 7471A	02/08/00	D88FE10A
		Dilution Factor: 1		Analysis Time..: 17:03	Analyst ID.....: 001702	
		Instrument ID..: CV				
Prep Batch #...: 0039127						
Arsenic	ND	0.86	mg/kg	SW846 6010B	02/08-02/09/00	D88FE103
		Dilution Factor: 3		Analysis Time..: 16:11	Analyst ID.....: 000896	
		Instrument ID..: P2				
Lead	**2.2**	**0.86**	**mg/kg**	**SW846 6010B**	**02/08-02/09/00**	**D88FE104**
		Dilution Factor: 3		Analysis Time..: 16:11	Analyst ID.....: 000896	
		Instrument ID..: P2				
Barium	**18.6**	**17.2**	**mg/kg**	**SW846 6010B**	**02/08-02/09/00**	**D88FE106**
		Dilution Factor: 3		Analysis Time..: 16:11	Analyst ID.....: 000896	
		Instrument ID..: P2				
Selenium	ND	0.86	mg/kg	SW846 6010B	02/08-02/09/00	D88FE105
		Dilution Factor: 3		Analysis Time..: 16:11	Analyst ID.....: 000896	
		Instrument ID..: P2				
Cadmium	ND	1.7	mg/kg	SW846 6010B	02/08-02/09/00	D88FE107
		Dilution Factor: 3		Analysis Time..: 16:11	Analyst ID.....: 000896	
		Instrument ID..: P2				
Chromium	**6.0**	**3.4**	**mg/kg**	**SW846 6010B**	**02/08-02/09/00**	**D88FE108**
		Dilution Factor: 3		Analysis Time..: 16:11	Analyst ID.....: 000896	
		Instrument ID..: P2				
Silver	ND	3.4	mg/kg	SW846 6010B	02/08-02/09/00	D88FE109
		Dilution Factor: 3		Analysis Time..: 16:11	Analyst ID.....: 000896	
		Instrument ID..: P2				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-7

TOTAL Metals

Lot-Sample #...: B0B050108-008
Date Sampled...: 02/03/00 Date Received..: 02/05/00 Matrix.....: SOLID
% Moisture.....: 11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.11	mg/kg	SW846 7471A	02/08/00	D88FF10A
		Dilution Factor: 1		Analysis Time..: 17:05	Analyst ID.....: 001702	
		Instrument ID..: CV				
Prep Batch #...: 0039127						
Arsenic	0.99	0.84	mg/kg	SW846 6010B	02/08-02/09/00	D88FF103
		Dilution Factor: 3		Analysis Time..: 16:16	Analyst ID.....: 000896	
		Instrument ID..: P2				
Lead	3.1	0.84	mg/kg	SW846 6010B	02/08-02/09/00	D88FF104
		Dilution Factor: 3		Analysis Time..: 16:16	Analyst ID.....: 000896	
		Instrument ID..: P2				
Barium	17.7	16.8	mg/kg	SW846 6010B	02/08-02/09/00	D88FF106
		Dilution Factor: 3		Analysis Time..: 16:16	Analyst ID.....: 000896	
		Instrument ID..: P2				
Selenium	ND	0.84	mg/kg	SW846 6010B	02/08-02/09/00	D88FF105
		Dilution Factor: 3		Analysis Time..: 16:16	Analyst ID.....: 000896	
		Instrument ID..: P2				
Cadmium	ND	1.7	mg/kg	SW846 6010B	02/08-02/09/00	D88FF107
		Dilution Factor: 3		Analysis Time..: 16:16	Analyst ID.....: 000896	
		Instrument ID..: P2				
Chromium	29.6	3.4	mg/kg	SW846 6010B	02/08-02/09/00	D88FF108
		Dilution Factor: 3		Analysis Time..: 16:16	Analyst ID.....: 000896	
		Instrument ID..: P2				
Silver	ND	3.4	mg/kg	SW846 6010B	02/08-02/09/00	D88FF109
		Dilution Factor: 3		Analysis Time..: 16:16	Analyst ID.....: 000896	
		Instrument ID..: P2				

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-8

TOTAL Metals

Lot-Sample #...: B0B050108-009
Date Sampled...: 02/03/00
% Moisture.....: 14

Date Received..: 02/05/00

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.12 Dilution Factor: 1 Instrument ID..: CV	mg/kg	SW846 7471A Analysis Time..: 17:06	02/08/00 Analyst ID.....: 001702	D88FG10A
Prep Batch #...: 0039127						
Arsenic	1.7	0.87 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:22	02/08-02/09/00 Analyst ID.....: 000896	D88FG103
Lead	3.1	0.87 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:22	02/08-02/09/00 Analyst ID.....: 000896	D88FG104
Barium	27.5	17.3 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:22	02/08-02/09/00 Analyst ID.....: 000896	D88FG106
Selenium	ND	0.87 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:22	02/08-02/09/00 Analyst ID.....: 000896	D88FG105
Cadmium	ND	1.7 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:22	02/08-02/09/00 Analyst ID.....: 000896	D88FG107
Chromium	23.2	3.5 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:22	02/08-02/09/00 Analyst ID.....: 000896	D88FG108
Silver	ND	3.5 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:22	02/08-02/09/00 Analyst ID.....: 000896	D88FG109

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-9

TOTAL Metals

Lot-Sample #...: B0B050108-010
Date Sampled...: 02/03/00 Date Received..: 02/05/00 Matrix.....: SOLID
% Moisture.....: 12

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.11 Dilution Factor: 1 Instrument ID..: CV	mg/kg	SW846 7471A Analysis Time..: 17:07	02/08/00 Analyst ID.....: 001702	D88FH10A
Prep Batch #...: 0039127						
Arsenic	1.2	0.85 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:27	02/08-02/09/00 Analyst ID.....: 000896	D88FH103
Lead	3.4	0.85 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:27	02/08-02/09/00 Analyst ID.....: 000896	D88FH104
Barium	17.8	17.1 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:27	02/08-02/09/00 Analyst ID.....: 000896	D88FH106
Selenium	ND	0.85 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:27	02/08-02/09/00 Analyst ID.....: 000896	D88FH105
Cadmium	ND	1.7 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:27	02/08-02/09/00 Analyst ID.....: 000896	D88FH107
Chromium	12.3	3.4 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:27	02/08-02/09/00 Analyst ID.....: 000896	D88FH108
Silver	ND	3.4 Dilution Factor: 3 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:27	02/08-02/09/00 Analyst ID.....: 000896	D88FH109

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-10

TOTAL Metals

Lot-Sample #...: B0B050108-011
Date Sampled...: 02/03/00
% Moisture.....: 11

Date Received..: 02/05/00

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038364						
Mercury	ND	0.11 Dilution Factor: 1 Instrument ID..: CV	mg/kg	SW846 7471A Analysis Time..: 17:09	02/08/00 Analyst ID.....: 001702	D88FJ10A
Prep Batch #...: 0039127						
Arsenic	ND	1.4 Dilution Factor: 5 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:33	02/08-02/09/00 Analyst ID.....: 000896	D88FJ103
Lead	2.1	**1.4** Dilution Factor: 5 Instrument ID..: P2	**mg/kg**	**SW846 6010B** Analysis Time..: 16:33	**02/08-02/09/00** Analyst ID.....: 000896	**D88FJ104**
Barium	ND	28.0 Dilution Factor: 5 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:33	02/08-02/09/00 Analyst ID.....: 000896	D88FJ106
Selenium	ND	1.4 Dilution Factor: 5 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:33	02/08-02/09/00 Analyst ID.....: 000896	D88FJ105
Cadmium	ND	2.8 Dilution Factor: 5 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:33	02/08-02/09/00 Analyst ID.....: 000896	D88FJ107
Chromium	ND	5.6 Dilution Factor: 5 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:33	02/08-02/09/00 Analyst ID.....: 000896	D88FJ108
Silver	ND	5.6 Dilution Factor: 5 Instrument ID..: P2	mg/kg	SW846 6010B Analysis Time..: 16:33	02/08-02/09/00 Analyst ID.....: 000896	D88FJ109

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: EB-1

TOTAL Metals

Lot-Sample #...: B0B050108-012
Date Sampled...: 02/03/00 Date Received..: 02/05/00 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0038349						
Mercury	ND	0.20 Dilution Factor: 1 Instrument ID..: CV	ug/L	SW846 7470A Analysis Time..: 15:47	02/08/00 Analyst ID.....: 001702	D88FK109
Prep Batch #...: 0038353						
Arsenic	ND	0.0050 Dilution Factor: 1 Instrument ID..: P2	mg/L	SW846 6010B Analysis Time..: 13:21	02/07-02/08/00 Analyst ID.....: 000896	D88FK102
Lead	ND	0.0030 Dilution Factor: 1 Instrument ID..: P2	mg/L	SW846 6010B Analysis Time..: 13:21	02/07-02/08/00 Analyst ID.....: 000896	D88FK103
Barium	ND	0.10 Dilution Factor: 1 Instrument ID..: P2	mg/L	SW846 6010B Analysis Time..: 13:21	02/07-02/08/00 Analyst ID.....: 000896	D88FK105
Selenium	ND	0.0050 Dilution Factor: 1 Instrument ID..: P2	mg/L	SW846 6010B Analysis Time..: 13:21	02/07-02/08/00 Analyst ID.....: 000896	D88FK104
Cadmium	ND	0.0050 Dilution Factor: 1 Instrument ID..: P2	mg/L	SW846 6010B Analysis Time..: 13:21	02/07-02/08/00 Analyst ID.....: 000896	D88FK106
Chromium	ND	0.010 Dilution Factor: 1 Instrument ID..: P2	mg/L	SW846 6010B Analysis Time..: 13:21	02/07-02/08/00 Analyst ID.....: 000896	D88FK107
Silver	ND	0.010 Dilution Factor: 1 Instrument ID..: P2	mg/L	SW846 6010B Analysis Time..: 13:21	02/07-02/08/00 Analyst ID.....: 000896	D88FK108

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-100

General Chemistry

Lot-Sample #...: B0B050108-001 Work Order #...: D88F7 Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 26

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)	8.0	0.10	No Units	SW846 9045A	02/06/00	0038108
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
		MDL.....: 0.10				
Ignitability	NO	--	No Units	SW846 SECTION 7.1	02/09/00	0040128
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 0	
		MDL.....: 0.0				
Percent Solids	74.3	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol..: 0	
		MDL.....: 0.10				
Total Cyanide	ND	0.67	mg/kg	SW846 9010B/9014	02/09/00	0040163
		Dilution Factor: 1		Initial Wgt/Vol: 1 g	Final Wgt/Vol..: 0	
		MDL.....: 0.36				
Total Sulfide	ND	67.3	mg/kg	MCAWW 376.1	02/09/00	0040132
		Dilution Factor: 1		Initial Wgt/Vol: 5 g	Final Wgt/Vol..: 0	
		MDL.....: 67.3				

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-1

General Chemistry

Lot-Sample #...: B0B050108-002 Work Order #...: D88F8 Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.3	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-2

General Chemistry

Lot-Sample #...: B0B050108-003 Work Order #...: D88F9 Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	87.0	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-3

General Chemistry

Lot-Sample #...: B0B050108-004 Work Order #...: D88FA Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	83.8	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-4

General Chemistry

Lot-Sample #...: B0B050108-005 Work Order #...: D88FC Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 20

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	80.5	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-5

General Chemistry

Lot-Sample #...: B0B050108-006 Work Order #...: D88FD Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.5	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-6

General Chemistry

Lot-Sample #...: B0B050108-007 Work Order #...: D88FE Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	87.0	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-7

General Chemistry

Lot-Sample #...: B0B050108-008 Work Order #...: D88FF Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	89.1	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-8

General Chemistry

Lot-Sample #...: B0B050108-009 Work Order #...: D88FG Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 14

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	86.5	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-9

General Chemistry

Lot-Sample #...: B0B050108-010 Work Order #...: D88FH Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 12

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	87.9	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

ENVIRONMENTAL STRATEGIES

Client Sample ID: SB-10

General Chemistry

Lot-Sample #...: B0B050108-011 Work Order #...: D88FJ Matrix.....: SOLID
Date Sampled...: 02/03/00 Date Received..: 02/05/00
% Moisture.....: 11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	89.2	0.10	%	MCAWW 160.3 MOD	02/07-02/08/00	0039111

Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol..: 0
MDL.....: 0.10

Received 10/23/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0I280163

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca Strait
Rebecca L. Strait
Project Manager

October 19, 2000

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
Law Engineering - Environmental	Rhonda Quinn	9/27/00	49374
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
3200 Town Point Dr. Suite 100	770/~~404~~-386-9212		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144		Becky Strait	
Project Name	**Carrier/Waybill Number**		
TK Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: VOC 8260B	1,4 Dioxane	Special Instructions/ Conditions of Receipt
SO-E-1 0-2'	9/25/00	1510			✓	4						✓	✓	analyses per Rhonda Quinn
SO-E-1 32-34'	9/25/00	1700			✓	4						✓	✓	
GW-E-4 48-52'	9/27/00	945	✓			~~2~~ 3			3			✓	✓	
GW-E-4 ~~52-56'~~ 60-61'	9/27/00	1440	✓			~~2~~ 3			3			✓	✓	
GW-E-4 44-48'	9/27/00	920	✓			~~2~~ 3			3			✓	✓	
Trip Blank	9/27/00	—	✓			~~2~~ 1			1			✓	✓	
Rinseate Blank, screen	9/27/00	1540	✓						3			✓	✓	
Rinseate Blank, Soil Sampler	9/27/00	1535	✓						3			✓	✓	
SO-E-4 (40-42')	9/27/00	1500			✓	4						✓	✓	
SO-E-4 (0-2')	9/27/00	1450			✓	4						✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	[redacted]	9/27/00	1549	Anne Sanders	9-28-00	930
2.						
3.						

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0I280163 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 09/28/00
Work Order: DL6V1103 Date Extracted:10/04/00
Dilution factor: 0.98 Date Analyzed: 10/04/00
Moisture %:10

QC Batch: 0280158

Client Sample Id: SO-E-1 0-2'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	9.8	U
71-43-2	Benzene	4.9	U
108-86-1	Bromobenzene	4.9	U
74-97-5	Bromochloromethane	4.9	U
75-27-4	Bromodichloromethane	4.9	U
75-25-2	Bromoform	4.9	U
74-83-9	Bromomethane	9.8	U
104-51-8	n-Butylbenzene	4.9	U
135-98-8	sec-Butylbenzene	4.9	U
98-06-6	tert-Butylbenzene	4.9	U
56-23-5	Carbon tetrachloride	4.9	U
108-90-7	Chlorobenzene	4.9	U
124-48-1	Chlorodibromomethane	4.9	U
75-00-3	Chloroethane	9.8	U
67-66-3	Chloroform	4.9	U
74-87-3	Chloromethane	9.8	U
95-49-8	2-Chlorotoluene	4.9	U
106-43-4	4-Chlorotoluene	4.9	U
106-93-4	1,2-Dibromoethane	4.9	U
74-95-3	Dibromomethane	4.9	U
95-50-1	1,2-Dichlorobenzene	4.9	U
541-73-1	1,3-Dichlorobenzene	4.9	U
106-46-7	1,4-Dichlorobenzene	4.9	U
75-71-8	Dichlorodifluoromethane	9.8	U
75-34-3	1,1-Dichloroethane	4.9	U
107-06-2	1,2-Dichloroethane	4.9	U
156-59-2	cis-1,2-Dichloroethene	2.4	U
156-60-5	trans-1,2-Dichloroethene	2.4	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0I280163 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 09/28/00
Work Order: DL6V1103 Date Extracted:10/04/00
Dilution factor: 0.98 Date Analyzed: 10/04/00
Moisture %:10

QC Batch: 0280158

Client Sample Id: SO-E-1 0-2'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.9	U
78-87-5	1,2-Dichloropropane	4.9	U
142-28-9	1,3-Dichloropropane	4.9	U
594-20-7	2,2-Dichloropropane	4.9	U
563-58-6	1,1-Dichloropropene	4.9	U
123-91-1	1,4-Dioxane	240	U
100-41-4	Ethylbenzene	4.9	U
87-68-3	Hexachlorobutadiene	4.9	U
98-82-8	Isopropylbenzene	4.9	U
99-87-6	p-Isopropyltoluene	4.9	U
75-09-2	Methylene chloride	4.9	U
91-20-3	Naphthalene	4.9	U
103-65-1	n-Propylbenzene	4.9	U
100-42-5	Styrene	4.9	U
630-20-6	1,1,1,2-Tetrachloroethane	4.9	U
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U
127-18-4	Tetrachloroethene	4.9	U
108-88-3	Toluene	4.9	U
87-61-6	1,2,3-Trichlorobenzene	4.9	U
120-82-1	1,2,4-Trichlorobenzene	4.9	U
71-55-6	1,1,1-Trichloroethane	4.9	U
79-00-5	1,1,2-Trichloroethane	4.9	U
79-01-6	Trichloroethene	4.9	U
75-69-4	Trichlorofluoromethane	9.8	U
96-18-4	1,2,3-Trichloropropane	4.9	U
95-63-6	1,2,4-Trimethylbenzene	4.9	U
108-67-8	1,3,5-Trimethylbenzene	4.9	U
75-01-4	Vinyl chloride	9.8	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Lab Sample ID:A0I280163 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Date Received: 09/28/00
Work Order: DL6V1103
Date Extracted:10/04/00
Dilution factor: 0.98
Date Analyzed: 10/04/00
Moisture %:10

QC Batch: 0280158

Client Sample Id: SO-E-1 0-2'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.9	U
95-47-6	o-Xylene	2.4	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0I280163 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 09/28/00
Work Order: DL6V9103 Date Extracted:10/04/00
Dilution factor: 0.79 Date Analyzed: 10/04/00
Moisture %:14

QC Batch: 0280158

Client Sample Id: SO-E-1 32-34'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	7.9	U
71-43-2	Benzene	4.0	U
108-86-1	Bromobenzene	4.0	U
74-97-5	Bromochloromethane	4.0	U
75-27-4	Bromodichloromethane	4.0	U
75-25-2	Bromoform	4.0	U
74-83-9	Bromomethane	7.9	U
104-51-8	n-Butylbenzene	4.0	U
135-98-8	sec-Butylbenzene	4.0	U
98-06-6	tert-Butylbenzene	4.0	U
56-23-5	Carbon tetrachloride	4.0	U
108-90-7	Chlorobenzene	4.0	U
124-48-1	Chlorodibromomethane	4.0	U
75-00-3	Chloroethane	7.9	U
67-66-3	Chloroform	4.0	U
74-87-3	Chloromethane	7.9	U
95-49-8	2-Chlorotoluene	4.0	U
106-43-4	4-Chlorotoluene	4.0	U
106-93-4	1,2-Dibromoethane	4.0	U
74-95-3	Dibromomethane	4.0	U
95-50-1	1,2-Dichlorobenzene	4.0	U
541-73-1	1,3-Dichlorobenzene	4.0	U
106-46-7	1,4-Dichlorobenzene	4.0	U
75-71-8	Dichlorodifluoromethane	7.9	U
75-34-3	1,1-Dichloroethane	4.0	U
107-06-2	1,2-Dichloroethane	4.0	U
156-59-2	cis-1,2-Dichloroethene	2.0	U
156-60-5	trans-1,2-Dichloroethene	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0I280163 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 09/28/00
Work Order: DL6V9103 Date Extracted:10/04/00
Dilution factor: 0.79 Date Analyzed: 10/04/00
Moisture %:14

QC Batch: 0280158

Client Sample Id: SO-E-1 32-34'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.0	U
78-87-5	1,2-Dichloropropane	4.0	U
142-28-9	1,3-Dichloropropane	4.0	U
594-20-7	2,2-Dichloropropane	4.0	U
563-58-6	1,1-Dichloropropene	4.0	U
123-91-1	1,4-Dioxane	200	U
100-41-4	Ethylbenzene	4.0	U
87-68-3	Hexachlorobutadiene	4.0	U
98-82-8	Isopropylbenzene	4.0	U
99-87-6	p-Isopropyltoluene	4.0	U
75-09-2	Methylene chloride	4.0	U
91-20-3	Naphthalene	4.0	U
103-65-1	n-Propylbenzene	4.0	U
100-42-5	Styrene	4.0	U
630-20-6	1,1,1,2-Tetrachloroethane	4.0	U
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U
127-18-4	Tetrachloroethene	4.0	U
108-88-3	Toluene	4.0	U
87-61-6	1,2,3-Trichlorobenzene	4.0	U
120-82-1	1,2,4-Trichlorobenzene	4.0	U
71-55-6	1,1,1-Trichloroethane	4.0	U
79-00-5	1,1,2-Trichloroethane	4.0	U
79-01-6	Trichloroethene	4.0	U
75-69-4	Trichlorofluoromethane	7.9	U
96-18-4	1,2,3-Trichloropropane	4.0	U
95-63-6	1,2,4-Trimethylbenzene	4.0	U
108-67-8	1,3,5-Trimethylbenzene	4.0	U
75-01-4	Vinyl chloride	7.9	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0I280163 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 09/28/00
Work Order: DL6V9103 Date Extracted:10/04/00
Dilution factor: 0.79 Date Analyzed: 10/04/00
Moisture %:14

QC Batch: 0280158

Client Sample Id: SO-E-1 32-34'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.0	U
95-47-6	o-Xylene	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0I280163 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 09/28/00
Work Order: DL6VR103 Date Extracted:10/06/00
Dilution factor: 1.92 Date Analyzed: 10/06/00
Moisture %:8.2

QC Batch: 0280216

Client Sample Id: SO-E-4 (40-42')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	19	U
71-43-2	Benzene	9.6	U
108-86-1	Bromobenzene	9.6	U
74-97-5	Bromochloromethane	9.6	U
75-27-4	Bromodichloromethane	9.6	U
75-25-2	Bromoform	9.6	U
74-83-9	Bromomethane	19	U
104-51-8	n-Butylbenzene	9.6	U
135-98-8	sec-Butylbenzene	9.6	U
98-06-6	tert-Butylbenzene	9.6	U
56-23-5	Carbon tetrachloride	9.6	U
108-90-7	Chlorobenzene	9.6	U
124-48-1	Chlorodibromomethane	9.6	U
75-00-3	Chloroethane	19	U
67-66-3	Chloroform	9.6	U
74-87-3	Chloromethane	19	U
95-49-8	2-Chlorotoluene	9.6	U
106-43-4	4-Chlorotoluene	9.6	U
106-93-4	1,2-Dibromoethane	9.6	U
74-95-3	Dibromomethane	9.6	U
95-50-1	1,2-Dichlorobenzene	9.6	U
541-73-1	1,3-Dichlorobenzene	9.6	U
106-46-7	1,4-Dichlorobenzene	9.6	U
75-71-8	Dichlorodifluoromethane	19	U
75-34-3	1,1-Dichloroethane	9.6	U
107-06-2	1,2-Dichloroethane	9.6	U
156-59-2	cis-1,2-Dichloroethene	4.8	U
156-60-5	trans-1,2-Dichloroethene	4.8	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Lab Sample ID:A0I280163 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Date Received: 09/28/00
Work Order: DL6VR103
Date Extracted:10/06/00
Dilution factor: 1.92
Date Analyzed: 10/06/00
Moisture %:8.2

QC Batch: 0280216

Client Sample Id: SO-E-4 (40-42')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	9.6	U
78-87-5	1,2-Dichloropropane	9.6	U
142-28-9	1,3-Dichloropropane	9.6	U
594-20-7	2,2-Dichloropropane	9.6	U
563-58-6	1,1-Dichloropropene	9.6	U
123-91-1	1,4-Dioxane	480	U
100-41-4	Ethylbenzene	9.6	U
87-68-3	Hexachlorobutadiene	9.6	U
98-82-8	Isopropylbenzene	9.6	U
99-87-6	p-Isopropyltoluene	9.6	U
75-09-2	Methylene chloride	9.6	U
91-20-3	Naphthalene	9.6	U
103-65-1	n-Propylbenzene	9.6	U
100-42-5	Styrene	9.6	U
630-20-6	1,1,1,2-Tetrachloroethane	9.6	U
79-34-5	1,1,2,2-Tetrachloroethane	9.6	U
127-18-4	Tetrachloroethene	9.6	U
108-88-3	Toluene	9.6	U
87-61-6	1,2,3-Trichlorobenzene	9.6	U
120-82-1	1,2,4-Trichlorobenzene	9.6	U
71-55-6	1,1,1-Trichloroethane	9.6	U
79-00-5	1,1,2-Trichloroethane	9.6	U
79-01-6	Trichloroethene	9.6	U
75-69-4	Trichlorofluoromethane	19	U
96-18-4	1,2,3-Trichloropropane	9.6	U
95-63-6	1,2,4-Trimethylbenzene	9.6	U
108-67-8	1,3,5-Trimethylbenzene	9.6	U
75-01-4	Vinyl chloride	19	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0I280163 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 09/28/00
Work Order: DL6VR103 Date Extracted:10/06/00
Dilution factor: 1.92 Date Analyzed: 10/06/00
Moisture %:8.2

QC Batch: 0280216

Client Sample Id: SO-E-4 (40-42')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	9.6	U
95-47-6	o-Xylene	4.8	U

GTI North Canton

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0I280163 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 09/28/00
Work Order: DL6W1103 Date Extracted:10/04/00
Dilution factor: 0.85 Date Analyzed: 10/04/00
Moisture %:12

QC Batch: 0280158

Client Sample Id: SO-E-4 (0-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	8.5	U
71-43-2	Benzene	4.2	U
108-86-1	Bromobenzene	4.2	U
74-97-5	Bromochloromethane	4.2	U
75-27-4	Bromodichloromethane	4.2	U
75-25-2	Bromoform	4.2	U
74-83-9	Bromomethane	8.5	U
104-51-8	n-Butylbenzene	4.2	U
135-98-8	sec-Butylbenzene	4.2	U
98-06-6	tert-Butylbenzene	4.2	U
56-23-5	Carbon tetrachloride	4.2	U
108-90-7	Chlorobenzene	4.2	U
124-48-1	Chlorodibromomethane	4.2	U
75-00-3	Chloroethane	8.5	U
67-66-3	Chloroform	4.2	U
74-87-3	Chloromethane	8.5	U
95-49-8	2-Chlorotoluene	4.2	U
106-43-4	4-Chlorotoluene	4.2	U
106-93-4	1,2-Dibromoethane	4.2	U
74-95-3	Dibromomethane	4.2	U
95-50-1	1,2-Dichlorobenzene	4.2	U
541-73-1	1,3-Dichlorobenzene	4.2	U
106-46-7	1,4-Dichlorobenzene	4.2	U
75-71-8	Dichlorodifluoromethane	8.5	U
75-34-3	1,1-Dichloroethane	4.2	U
107-06-2	1,2-Dichloroethane	4.2	U
156-59-2	cis-1,2-Dichloroethene	2.1	U
156-60-5	trans-1,2-Dichloroethene	2.1	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0I280163 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 09/28/00
Work Order: DL6W1103 Date Extracted:10/04/00
Dilution factor: 0.85 Date Analyzed: 10/04/00
Moisture %:12

QC Batch: 0280158

Client Sample Id: SO-E-4 (0-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.2	U
78-87-5	1,2-Dichloropropane	4.2	U
142-28-9	1,3-Dichloropropane	4.2	U
594-20-7	2,2-Dichloropropane	4.2	U
563-58-6	1,1-Dichloropropene	4.2	U
123-91-1	1,4-Dioxane	210	U
100-41-4	Ethylbenzene	4.2	U
87-68-3	Hexachlorobutadiene	4.2	U
98-82-8	Isopropylbenzene	4.2	U
99-87-6	p-Isopropyltoluene	4.2	U
75-09-2	Methylene chloride	4.2	U
91-20-3	Naphthalene	4.2	U
103-65-1	n-Propylbenzene	4.2	U
100-42-5	Styrene	4.2	U
630-20-6	1,1,1,2-Tetrachloroethane	4.2	U
79-34-5	1,1,2,2-Tetrachloroethane	4.2	U
127-18-4	Tetrachloroethene	4.2	U
108-88-3	Toluene	4.2	U
87-61-6	1,2,3-Trichlorobenzene	4.2	U
120-82-1	1,2,4-Trichlorobenzene	4.2	U
71-55-6	1,1,1-Trichloroethane	4.2	U
79-00-5	1,1,2-Trichloroethane	4.2	U
79-01-6	Trichloroethene	4.2	U
75-69-4	Trichlorofluoromethane	8.5	U
96-18-4	1,2,3-Trichloropropane	4.2	U
95-63-6	1,2,4-Trimethylbenzene	4.2	U
108-67-8	1,3,5-Trimethylbenzene	4.2	U
75-01-4	Vinyl chloride	8.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Lab Sample ID:A0I280163 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DL6W1103
Dilution factor: 0.85
Moisture %:12

Date Received: 09/28/00
Date Extracted:10/04/00
Date Analyzed: 10/04/00

QC Batch: 0280158

Client Sample Id: SO-E-4 (0-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.2	U
95-47-6	o-Xylene	2.1	U

Received 11/13/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE
SDG #: 0J11227

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca Strait
Rebecca L. Strait
Project Manager

November 10, 2000

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/10/00	Chain of Custody Number: 48455
Address: 3200 Town Point Drive Suite 100	Telephone Number (Area Code)/Fax Number: 770-421-3516 / 770-421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: AL / Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260	Analysis: 1-4 Dioxane
GW-E-13 (44-48')	10/9/00	1400	✓						3			✓	✓
GW-E-13 (48-52')	10/9/00	1505	✓						3			✓	✓
GW-E-13 (56-60')	10/9/00	1718	✓						3			✓	✓
SO-E-13 (38-40')	10/9/00	1800			✓	4						✓	✓
SO-E-13 (0-4')	10/9/00	1810			✓	4						✓	✓
SO-E-13 (14-16')	10/9/00	1820			✓	4						✓	✓
Trip Blank	10/9/00	1400	✓						1			✓	✓
GW-E-5 (54-58')	10/10/00	0855	✓						3			✓	✓

Special Instructions/ Conditions of Receipt

Analyze For Rhonda Quinn

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: Christopher Kennedy	Date: 10/10/00	Time: 1153	1. Received By:	Date: 10/11/00	Time: 940
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

[redacted]

Chain of Custody Record

Quanterra

18

QUA-4124 0797

Client: LAW Environmental & Engineering	Project Manager: Rhonda Quinn	Date: 10/11/00	Chain of Custody Number: 48901
Address: 3800 Town Point Drive Suite 100	Telephone Number (Area Code)/Fax Number: 770/421-3516 / 770-421-3486	Lab Number:	Page ____ of ____
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	Analysis (Attach list if more space is needed)
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOCs 8260B	14 Dioxane	Special Instructions/ Conditions of Receipt
GW-E-15 (48-52')	10/11/00	1011	✓						3			✓	✓	Analyze For Rhonda Quinn
Matrix Spike	10/11/00	1017	✓						3			✓	✓	
Matrix Spike Duplicate	10/11/00	1021	✓						3			✓	✓	
GW-E-15 (54-58')	10/11/00	1102	✓						3			✓	✓	
GW-E-15 (61-65')	10/11/00	1153	✓	X	10/12/00 ✓				3			✓	✓	
GW-AOC-8-1 (0'-2')	10/11/00	1915		X	✓	4						✓	✓	
GW-AOC 8-1 (14'-16')	10/11/00	1930		X	✓	4						✓	✓	
GW AOC 8-1 (38'-40')	10/11/00	1995		X	✓	4						✓	✓	
Trip Blank									1			✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Christopher Kramb Jr.	10/12/00	0845	1. Received By: Anne Sanders	10-13-00	915
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/13/00	Chain of Custody Number: 48902
Address: 3200 Town Point Dr., Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3516/(770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260 B	1,4 Dioxane	Special Instructions/ Conditions of Receipt
GW-AOC 8-2 0'-2'	10/12/00	1335			✓	4						✓	✓	Analyze samples for Rhonda Quinn
GW-AOC 8-2 18'-20'	10/12/00	1345			✓	4						✓	✓	
GW-AOC 8-2 38'-40'	10/12/00	1730			✓	4						✓	✓	
GW-AOC 10-1 0'-2'	10/12/00	1848			✓	4						✓	✓	
GW-AOC 10-1 18'-20'	10/12/00	1915			✓	4						✓	✓	
GW-AOC 10-1 38'-40'	10/12/00	1925			✓	4						✓	✓	
Trip Blank			✓						1			✓	✓	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify):

1. Relinquished By: Christopher Kramer Jr.	Date: 10/13/00	Time: 1145	1. Received By: Dale Sanders	Date: 10-14-00	Time: 1000
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

GMT North Canton

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J110227 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/11/00
Work Order: DLXT0103 Date Extracted:10/17/00
Dilution factor: 1.84 Date Analyzed: 10/17/00
Moisture %:2.9

QC Batch: 0292129

Client Sample Id: SO-E-13 (38-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	9.2	U
108-86-1	Bromobenzene	9.2	U
74-97-5	Bromochloromethane	9.2	U
75-27-4	Bromodichloromethane	9.2	U
75-25-2	Bromoform	9.2	U
74-83-9	Bromomethane	18	U
104-51-8	n-Butylbenzene	9.2	U
135-98-8	sec-Butylbenzene	9.2	U
98-06-6	tert-Butylbenzene	9.2	U
56-23-5	Carbon tetrachloride	9.2	U
108-90-7	Chlorobenzene	9.2	U
124-48-1	Chlorodibromomethane	9.2	U
96-12-8	1,2-Dibromo-3-chloropropane	18	U
75-00-3	Chloroethane	18	U
67-66-3	Chloroform	9.2	U
74-87-3	Chloromethane	18	U
95-49-8	2-Chlorotoluene	9.2	U
106-43-4	4-Chlorotoluene	9.2	U
106-93-4	1,2-Dibromoethane	9.2	U
74-95-3	Dibromomethane	9.2	U
95-50-1	1,2-Dichlorobenzene	9.2	U
541-73-1	1,3-Dichlorobenzene	9.2	U
106-46-7	1,4-Dichlorobenzene	9.2	U
75-71-8	Dichlorodifluoromethane	18	U
75-34-3	1,1-Dichloroethane	9.2	U
107-06-2	1,2-Dichloroethane	9.2	U
75-35-4	1,1-Dichloroethene	9.2	U
156-59-2	cis-1,2-Dichloroethene	4.6	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J110227 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/11/00
Work Order: DLXT0103 Date Extracted:10/17/00
Dilution factor: 1.84 Date Analyzed: 10/17/00
Moisture %:2.9

QC Batch: 0292129

Client Sample Id: SO-E-13 (38-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	4.6	U
78-87-5	1,2-Dichloropropane	9.2	U
142-28-9	1,3-Dichloropropane	9.2	U
594-20-7	2,2-Dichloropropane	9.2	U
563-58-6	1,1-Dichloropropene	9.2	U
123-91-1	1,4-Dioxane	460	U
100-41-4	Ethylbenzene	9.2	U
75-69-4	Trichlorofluoromethane	18	U
87-68-3	Hexachlorobutadiene	9.2	U
98-82-8	Isopropylbenzene	9.2	U
99-87-6	p-Isopropyltoluene	9.2	U
75-09-2	Methylene chloride	9.2	U
91-20-3	Naphthalene	9.2	U
103-65-1	n-Propylbenzene	9.2	U
100-42-5	Styrene	9.2	U
630-20-6	1,1,1,2-Tetrachloroethane	9.2	U
79-34-5	1,1,2,2-Tetrachloroethane	9.2	U
127-18-4	Tetrachloroethene	9.2	U
108-88-3	Toluene	9.2	U
87-61-6	1,2,3-Trichlorobenzene	9.2	U
120-82-1	1,2,4-Trichlorobenzene	9.2	U
71-55-6	1,1,1-Trichloroethane	9.2	U
79-00-5	1,1,2-Trichloroethane	9.2	U
79-01-6	Trichloroethene	9.2	U
96-18-4	1,2,3-Trichloropropane	9.2	U
95-63-6	1,2,4-Trimethylbenzene	9.2	U
108-67-8	1,3,5-Trimethylbenzene	9.2	U
75-01-4	Vinyl chloride	18	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J110227 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/11/00
Work Order: DLXT0103 Date Extracted:10/17/00
Dilution factor: 1.84 Date Analyzed: 10/17/00
Moisture %:2.9
QC Batch: 0292129

Client Sample Id: SO-E-13 (38-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	4.6	U
136777-61-2	m-Xylene & p-Xylene	9.2	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J110227 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/11/00
Work Order: DLXT2103 Date Extracted:10/17/00
Dilution factor: 1.36 Date Analyzed: 10/17/00
Moisture %:4.4

QC Batch: 0292129

Client Sample Id: SO-E-13 (0-4')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	6.8	U
108-86-1	Bromobenzene	6.8	U
74-97-5	Bromochloromethane	6.8	U
75-27-4	Bromodichloromethane	6.8	U
75-25-2	Bromoform	6.8	U
74-83-9	Bromomethane	14	U
104-51-8	n-Butylbenzene	6.8	U
135-98-8	sec-Butylbenzene	6.8	U
98-06-6	tert-Butylbenzene	6.8	U
56-23-5	Carbon tetrachloride	6.8	U
108-90-7	Chlorobenzene	6.8	U
124-48-1	Chlorodibromomethane	6.8	U
96-12-8	1,2-Dibromo-3-chloropropane	14	U
75-00-3	Chloroethane	14	U
67-66-3	Chloroform	6.8	U
74-87-3	Chloromethane	14	U
95-49-8	2-Chlorotoluene	6.8	U
106-43-4	4-Chlorotoluene	6.8	U
106-93-4	1,2-Dibromoethane	6.8	U
74-95-3	Dibromomethane	6.8	U
95-50-1	1,2-Dichlorobenzene	6.8	U
541-73-1	1,3-Dichlorobenzene	6.8	U
106-46-7	1,4-Dichlorobenzene	6.8	U
75-71-8	Dichlorodifluoromethane	14	U
75-34-3	1,1-Dichloroethane	6.8	U
107-06-2	1,2-Dichloroethane	6.8	U
75-35-4	1,1-Dichloroethene	6.8	U
156-59-2	cis-1,2-Dichloroethene	3.4	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J110227 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/11/00
Work Order: DLXT2103 Date Extracted:10/17/00
Dilution factor: 1.36 Date Analyzed: 10/17/00
Moisture %:4.4

QC Batch: 0292129

Client Sample Id: SO-E-13 (0-4')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	3.4	U
78-87-5	1,2-Dichloropropane	6.8	U
142-28-9	1,3-Dichloropropane	6.8	U
594-20-7	2,2-Dichloropropane	6.8	U
563-58-6	1,1-Dichloropropene	6.8	U
123-91-1	1,4-Dioxane	340	U
100-41-4	Ethylbenzene	6.8	U
75-69-4	Trichlorofluoromethane	14	U
87-68-3	Hexachlorobutadiene	6.8	U
98-82-8	Isopropylbenzene	6.8	U
99-87-6	p-Isopropyltoluene	6.8	U
75-09-2	Methylene chloride	6.8	U
91-20-3	Naphthalene	6.8	U
103-65-1	n-Propylbenzene	6.8	U
100-42-5	Styrene	6.8	U
630-20-6	1,1,1,2-Tetrachloroethane	6.8	U
79-34-5	1,1,2,2-Tetrachloroethane	6.8	U
127-18-4	Tetrachloroethene	6.8	U
108-88-3	Toluene	6.8	U
87-61-6	1,2,3-Trichlorobenzene	6.8	U
120-82-1	1,2,4-Trichlorobenzene	6.8	U
71-55-6	1,1,1-Trichloroethane	6.8	U
79-00-5	1,1,2-Trichloroethane	6.8	U
79-01-6	Trichloroethene	6.8	U
96-18-4	1,2,3-Trichloropropane	6.8	U
95-63-6	1,2,4-Trimethylbenzene	6.8	U
108-67-8	1,3,5-Trimethylbenzene	6.8	U
75-01-4	Vinyl chloride	14	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J110227 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/11/00
Work Order: DLXT2103 Date Extracted:10/17/00
Dilution factor: 1.36 Date Analyzed: 10/17/00
Moisture %:4.4

QC Batch: 0292129

Client Sample Id: SO-E-13 (0-4')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	3.4	U
136777-61-2	m-Xylene & p-Xylene	6.8	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J110227 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/11/00
Work Order: DLXT3103 Date Extracted:10/17/00
Dilution factor: 1.02 Date Analyzed: 10/17/00
Moisture %:14

QC Batch: 0292129

Client Sample Id: SO-E-13 (14-16')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	5.1	U
108-86-1	Bromobenzene	5.1	U
74-97-5	Bromochloromethane	5.1	U
75-27-4	Bromodichloromethane	5.1	U
75-25-2	Bromoform	5.1	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.1	U
135-98-8	sec-Butylbenzene	5.1	U
98-06-6	tert-Butylbenzene	5.1	U
56-23-5	Carbon tetrachloride	5.1	U
108-90-7	Chlorobenzene	5.1	U
124-48-1	Chlorodibromomethane	5.1	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.1	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.1	U
106-43-4	4-Chlorotoluene	5.1	U
106-93-4	1,2-Dibromoethane	5.1	U
74-95-3	Dibromomethane	5.1	U
95-50-1	1,2-Dichlorobenzene	5.1	U
541-73-1	1,3-Dichlorobenzene	5.1	U
106-46-7	1,4-Dichlorobenzene	5.1	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.1	U
107-06-2	1,2-Dichloroethane	5.1	U
75-35-4	1,1-Dichloroethene	5.1	U
156-59-2	cis-1,2-Dichloroethene	2.6	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J110227 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/11/00
Work Order: DLXT3103 Date Extracted:10/17/00
Dilution factor: 1.02 Date Analyzed: 10/17/00
Moisture %:14

QC Batch: 0292129

Client Sample Id: SO-E-13 (14-16')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	2.6	U
78-87-5	1,2-Dichloropropane	5.1	U
142-28-9	1,3-Dichloropropane	5.1	U
594-20-7	2,2-Dichloropropane	5.1	U
563-58-6	1,1-Dichloropropene	5.1	U
123-91-1	1,4-Dioxane	260	U
100-41-4	Ethylbenzene	5.1	U
75-69-4	Trichlorofluoromethane	10	U
87-68-3	Hexachlorobutadiene	5.1	U
98-82-8	Isopropylbenzene	5.1	U
99-87-6	p-Isopropyltoluene	5.1	U
75-09-2	Methylene chloride	5.1	U
91-20-3	Naphthalene	5.1	U
103-65-1	n-Propylbenzene	5.1	U
100-42-5	Styrene	5.1	U
630-20-6	1,1,1,2-Tetrachloroethane	5.1	U
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U
127-18-4	Tetrachloroethene	5.1	U
108-88-3	Toluene	5.1	U
87-61-6	1,2,3-Trichlorobenzene	5.1	U
120-82-1	1,2,4-Trichlorobenzene	5.1	U
71-55-6	1,1,1-Trichloroethane	5.1	U
79-00-5	1,1,2-Trichloroethane	5.1	U
79-01-6	Trichloroethene	5.1	U
96-18-4	1,2,3-Trichloropropane	5.1	U
95-63-6	1,2,4-Trimethylbenzene	5.1	U
108-67-8	1,3,5-Trimethylbenzene	5.1	U
75-01-4	Vinyl chloride	10	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J110227 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/11/00
Work Order: DLXT3103 Date Extracted:10/17/00
Dilution factor: 1.02 Date Analyzed: 10/17/00
Moisture %:14

QC Batch: 0292129

Client Sample Id: SO-E-13 (14-16')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	2.6	U
136777-61-2	m-Xylene & p-Xylene	5.1	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J130152 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/13/00
Work Order: DM4C81AD Date Extracted:10/24/00
Dilution factor: 0.92 Date Analyzed: 10/24/00
Moisture %:16

QC Batch: 0300124

Client Sample Id: GW-AOC-8-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	9.2	U
71-43-2	Benzene	4.6	U
108-86-1	Bromobenzene	4.6	U
74-97-5	Bromochloromethane	4.6	U
75-27-4	Bromodichloromethane	4.6	U
75-25-2	Bromoform	4.6	U
74-83-9	Bromomethane	9.2	U
104-51-8	n-Butylbenzene	4.6	U
135-98-8	sec-Butylbenzene	4.6	U
98-06-6	tert-Butylbenzene	4.6	U
56-23-5	Carbon tetrachloride	4.6	U
108-90-7	Chlorobenzene	4.6	U
124-48-1	Chlorodibromomethane	4.6	U
75-00-3	Chloroethane	9.2	U
67-66-3	Chloroform	4.6	U
74-87-3	Chloromethane	9.2	U
95-49-8	2-Chlorotoluene	4.6	U
106-43-4	4-Chlorotoluene	4.6	U
106-93-4	1,2-Dibromoethane	4.6	U
74-95-3	Dibromomethane	4.6	U
95-50-1	1,2-Dichlorobenzene	4.6	U
541-73-1	1,3-Dichlorobenzene	4.6	U
106-46-7	1,4-Dichlorobenzene	4.6	U
75-71-8	Dichlorodifluoromethane	9.2	U
75-34-3	1,1-Dichloroethane	4.6	U
107-06-2	1,2-Dichloroethane	4.6	U
156-59-2	cis-1,2-Dichloroethene	2.3	U
156-60-5	trans-1,2-Dichloroethene	2.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J130152 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/13/00
Work Order: DM4C81AD Date Extracted:10/24/00
Dilution factor: 0.92 Date Analyzed: 10/24/00
Moisture %:16

QC Batch: 0300124

Client Sample Id: GW-AOC-8-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.6	U
78-87-5	1,2-Dichloropropane	4.6	U
142-28-9	1,3-Dichloropropane	4.6	U
594-20-7	2,2-Dichloropropane	4.6	U
563-58-6	1,1-Dichloropropene	4.6	U
123-91-1	1,4-Dioxane	230	U
100-41-4	Ethylbenzene	4.6	U
87-68-3	Hexachlorobutadiene	4.6	U
98-82-8	Isopropylbenzene	4.6	U
99-87-6	p-Isopropyltoluene	4.6	U
75-09-2	Methylene chloride	4.6	U
91-20-3	Naphthalene	4.6	U
103-65-1	n-Propylbenzene	4.6	U
100-42-5	Styrene	4.6	U
630-20-6	1,1,1,2-Tetrachloroethane	4.6	U
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U
127-18-4	Tetrachloroethene	4.6	U
108-88-3	Toluene	4.6	U
87-61-6	1,2,3-Trichlorobenzene	4.6	U
120-82-1	1,2,4-Trichlorobenzene	4.6	U
71-55-6	1,1,1-Trichloroethane	4.6	U
79-00-5	1,1,2-Trichloroethane	4.6	U
79-01-6	Trichloroethene	49	
75-69-4	Trichlorofluoromethane	9.2	U
96-18-4	1,2,3-Trichloropropane	4.6	U
95-63-6	1,2,4-Trimethylbenzene	8.1	
108-67-8	1,3,5-Trimethylbenzene	4.6	U
75-01-4	Vinyl chloride	9.2	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J130152 004

Sample WT/Vol: 5 / g
Work Order: DM4C81AD
Dilution factor: 0.92
Moisture %:16

Date Received: 10/13/00
Date Extracted:10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-AOC-8-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.6	U
95-47-6	o-Xylene	2.3	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J130152 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/13/00
Work Order: DM4DA1AD Date Extracted:10/24/00
Dilution factor: 0.96 Date Analyzed: 10/24/00
Moisture %:15

QC Batch: 0300124

Client Sample Id: GW-AOC-8-1 (14'-16')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	9.6	U
71-43-2	Benzene	4.8	U
108-86-1	Bromobenzene	4.8	U
74-97-5	Bromochloromethane	4.8	U
75-27-4	Bromodichloromethane	4.8	U
75-25-2	Bromoform	4.8	U
74-83-9	Bromomethane	9.6	U
104-51-8	n-Butylbenzene	4.8	U
135-98-8	sec-Butylbenzene	4.8	U
98-06-6	tert-Butylbenzene	4.8	U
56-23-5	Carbon tetrachloride	4.8	U
108-90-7	Chlorobenzene	4.8	U
124-48-1	Chlorodibromomethane	4.8	U
75-00-3	Chloroethane	9.6	U
67-66-3	Chloroform	4.8	U
74-87-3	Chloromethane	9.6	U
95-49-8	2-Chlorotoluene	4.8	U
106-43-4	4-Chlorotoluene	4.8	U
106-93-4	1,2-Dibromoethane	4.8	U
74-95-3	Dibromomethane	4.8	U
95-50-1	1,2-Dichlorobenzene	4.8	U
541-73-1	1,3-Dichlorobenzene	4.8	U
106-46-7	1,4-Dichlorobenzene	4.8	U
75-71-8	Dichlorodifluoromethane	9.6	U
75-34-3	1,1-Dichloroethane	4.8	U
107-06-2	1,2-Dichloroethane	4.8	U
156-59-2	cis-1,2-Dichloroethene	5.6	
156-60-5	trans-1,2-Dichloroethene	2.4	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J130152 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/13/00
Work Order: DM4DA1AD Date Extracted:10/24/00
Dilution factor: 0.96 Date Analyzed: 10/24/00
Moisture %:15

QC Batch: 0300124

Client Sample Id: GW-AOC-8-1 (14'-16')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.8	U
78-87-5	1,2-Dichloropropane	4.8	U
142-28-9	1,3-Dichloropropane	4.8	U
594-20-7	2,2-Dichloropropane	4.8	U
563-58-6	1,1-Dichloropropene	4.8	U
123-91-1	1,4-Dioxane	240	U
100-41-4	Ethylbenzene	4.8	U
87-68-3	Hexachlorobutadiene	4.8	U
98-82-8	Isopropylbenzene	4.8	U
99-87-6	p-Isopropyltoluene	4.8	U
75-09-2	Methylene chloride	4.8	U
91-20-3	Naphthalene	4.8	U
103-65-1	n-Propylbenzene	4.8	U
100-42-5	Styrene	4.8	U
630-20-6	1,1,1,2-Tetrachloroethane	4.8	U
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U
127-18-4	Tetrachloroethene	4.8	U
108-88-3	Toluene	4.8	U
87-61-6	1,2,3-Trichlorobenzene	4.8	U
120-82-1	1,2,4-Trichlorobenzene	4.8	U
71-55-6	1,1,1-Trichloroethane	5.4	
79-00-5	1,1,2-Trichloroethane	4.8	U
79-01-6	Trichloroethene	78	
75-69-4	Trichlorofluoromethane	9.6	U
96-18-4	1,2,3-Trichloropropane	4.8	U
95-63-6	1,2,4-Trimethylbenzene	4.8	U
108-67-8	1,3,5-Trimethylbenzene	4.8	U
75-01-4	Vinyl chloride	9.6	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J130152 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/13/00
Work Order: DM4DA1AD Date Extracted:10/24/00
Dilution factor: 0.96 Date Analyzed: 10/24/00
Moisture %:15

QC Batch: 0300124

Client Sample Id: GW-AOC-8-1 (14'-16')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.8	U
95-47-6	o-Xylene	2.4	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO
Lab Sample ID:A0J130152 006

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DM4DC1AD
Dilution factor: 1.31
Moisture %:3.7

Date Received: 10/13/00
Date Extracted:10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-AOC-8-1 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	13	U
71-43-2	Benzene	6.6	U
108-86-1	Bromobenzene	6.6	U
74-97-5	Bromochloromethane	6.6	U
75-27-4	Bromodichloromethane	6.6	U
75-25-2	Bromoform	6.6	U
74-83-9	Bromomethane	13	U
104-51-8	n-Butylbenzene	6.6	U
135-98-8	sec-Butylbenzene	6.6	U
98-06-6	tert-Butylbenzene	6.6	U
56-23-5	Carbon tetrachloride	6.6	U
108-90-7	Chlorobenzene	6.6	U
124-48-1	Chlorodibromomethane	6.6	U
75-00-3	Chloroethane	13	U
67-66-3	Chloroform	6.6	U
74-87-3	Chloromethane	13	U
95-49-8	2-Chlorotoluene	6.6	U
106-43-4	4-Chlorotoluene	6.6	U
106-93-4	1,2-Dibromoethane	6.6	U
74-95-3	Dibromomethane	6.6	U
95-50-1	1,2-Dichlorobenzene	6.6	U
541-73-1	1,3-Dichlorobenzene	6.6	U
106-46-7	1,4-Dichlorobenzene	6.6	U
75-71-8	Dichlorodifluoromethane	13	U
75-34-3	1,1-Dichloroethane	6.6	U
107-06-2	1,2-Dichloroethane	6.6	U
156-59-2	cis-1,2-Dichloroethene	3.3	U
156-60-5	trans-1,2-Dichloroethene	3.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Lab Sample ID:A0J130152 006

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DM4DC1AD
Dilution factor: 1.31
Moisture %:3.7

Date Received: 10/13/00
Date Extracted:10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-AOC-8-1 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	6.6	U
78-87-5	1,2-Dichloropropane	6.6	U
142-28-9	1,3-Dichloropropane	6.6	U
594-20-7	2,2-Dichloropropane	6.6	U
563-58-6	1,1-Dichloropropene	6.6	U
123-91-1	1,4-Dioxane	330	U
100-41-4	Ethylbenzene	6.6	U
87-68-3	Hexachlorobutadiene	6.6	U
98-82-8	Isopropylbenzene	6.6	U
99-87-6	p-Isopropyltoluene	6.6	U
75-09-2	Methylene chloride	6.6	U
91-20-3	Naphthalene	6.6	U
103-65-1	n-Propylbenzene	6.6	U
100-42-5	Styrene	6.6	U
630-20-6	1,1,1,2-Tetrachloroethane	6.6	U
79-34-5	1,1,2,2-Tetrachloroethane	6.6	U
127-18-4	Tetrachloroethene	6.6	U
108-88-3	Toluene	6.6	U
87-61-6	1,2,3-Trichlorobenzene	6.6	U
120-82-1	1,2,4-Trichlorobenzene	6.6	U
71-55-6	1,1,1-Trichloroethane	6.6	U
79-00-5	1,1,2-Trichloroethane	6.6	U
79-01-6	Trichloroethene	6.6	U
75-69-4	Trichlorofluoromethane	13	U
96-18-4	1,2,3-Trichloropropane	6.6	U
95-63-6	1,2,4-Trimethylbenzene	6.6	U
108-67-8	1,3,5-Trimethylbenzene	6.6	U
75-01-4	Vinyl chloride	13	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J130152 006

Sample WT/Vol: 5 / g
Work Order: DM4DC1AD
Dilution factor: 1.31
Moisture %:3.7

Date Received: 10/13/00
Date Extracted:10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-AOC-8-1 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	6.6	U
95-47-6	o-Xylene	3.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO
Lab Sample ID:A0J140112 001

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DM6L71AD
Dilution factor: 0.82
Moisture %:11

Date Received: 10/14/00
Date Extracted:10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-A0C 8-2 0'-2'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	8.2	U
71-43-2	Benzene	4.1	U
108-86-1	Bromobenzene	4.1	U
74-97-5	Bromochloromethane	4.1	U
75-27-4	Bromodichloromethane	4.1	U
75-25-2	Bromoform	4.1	U
74-83-9	Bromomethane	8.2	U
104-51-8	n-Butylbenzene	4.1	U
135-98-8	sec-Butylbenzene	4.1	U
98-06-6	tert-Butylbenzene	4.1	U
56-23-5	Carbon tetrachloride	4.1	U
108-90-7	Chlorobenzene	4.1	U
124-48-1	Chlorodibromomethane	4.1	U
75-00-3	Chloroethane	8.2	U
67-66-3	Chloroform	4.1	U
74-87-3	Chloromethane	8.2	U
95-49-8	2-Chlorotoluene	4.1	U
106-43-4	4-Chlorotoluene	4.1	U
106-93-4	1,2-Dibromoethane	4.1	U
74-95-3	Dibromomethane	4.1	U
95-50-1	1,2-Dichlorobenzene	4.1	U
541-73-1	1,3-Dichlorobenzene	4.1	U
106-46-7	1,4-Dichlorobenzene	4.1	U
75-71-8	Dichlorodifluoromethane	8.2	U
75-34-3	1,1-Dichloroethane	4.1	U
107-06-2	1,2-Dichloroethane	4.1	U
156-59-2	cis-1,2-Dichloroethene	2.0	U
156-60-5	trans-1,2-Dichloroethene	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number: 0J11227

Matrix: (soil/water) SO
Lab Sample ID: A0J140112 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DM6L71AD
Dilution factor: 0.82
Moisture %: 11

Date Received: 10/14/00
Date Extracted: 10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-A0C 8-2 0'-2'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.1	U
78-87-5	1,2-Dichloropropane	4.1	U
142-28-9	1,3-Dichloropropane	4.1	U
594-20-7	2,2-Dichloropropane	4.1	U
563-58-6	1,1-Dichloropropene	4.1	U
123-91-1	1,4-Dioxane	200	U
100-41-4	Ethylbenzene	4.1	U
87-68-3	Hexachlorobutadiene	4.1	U
98-82-8	Isopropylbenzene	4.1	U
99-87-6	p-Isopropyltoluene	4.1	U
75-09-2	Methylene chloride	4.1	U
91-20-3	Naphthalene	4.1	U
103-65-1	n-Propylbenzene	4.1	U
100-42-5	Styrene	4.1	U
630-20-6	1,1,1,2-Tetrachloroethane	4.1	U
79-34-5	1,1,2,2-Tetrachloroethane	4.1	U
127-18-4	Tetrachloroethene	4.1	U
108-88-3	Toluene	4.1	U
87-61-6	1,2,3-Trichlorobenzene	4.1	U
120-82-1	1,2,4-Trichlorobenzene	4.1	U
71-55-6	1,1,1-Trichloroethane	4.1	U
79-00-5	1,1,2-Trichloroethane	4.1	U
79-01-6	Trichloroethene	12	
75-69-4	Trichlorofluoromethane	8.2	U
96-18-4	1,2,3-Trichloropropane	4.1	U
95-63-6	1,2,4-Trimethylbenzene	4.1	U
108-67-8	1,3,5-Trimethylbenzene	4.1	U
75-01-4	Vinyl chloride	8.2	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6L71AD Date Extracted:10/24/00
Dilution factor: 0.82 Date Analyzed: 10/24/00
Moisture %:11

QC Batch: 0300124

Client Sample Id: GW-A0C 8-2 0'-2'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.1	U
95-47-6	o-Xylene	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Lab Sample ID:A0J140112 002

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DM6L81AD
Dilution factor: 0.89
Moisture %:15

Date Received: 10/14/00
Date Extracted:10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-A0C 8-2 18'-20'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	8.9	U
71-43-2	Benzene	4.4	U
108-86-1	Bromobenzene	4.4	U
74-97-5	Bromochloromethane	4.4	U
75-27-4	Bromodichloromethane	4.4	U
75-25-2	Bromoform	4.4	U
74-83-9	Bromomethane	8.9	U
104-51-8	n-Butylbenzene	4.4	U
135-98-8	sec-Butylbenzene	4.4	U
98-06-6	tert-Butylbenzene	4.4	U
56-23-5	Carbon tetrachloride	4.4	U
108-90-7	Chlorobenzene	4.4	U
124-48-1	Chlorodibromomethane	4.4	U
75-00-3	Chloroethane	8.9	U
67-66-3	Chloroform	4.4	U
74-87-3	Chloromethane	8.9	U
95-49-8	2-Chlorotoluene	4.4	U
106-43-4	4-Chlorotoluene	4.4	U
106-93-4	1,2-Dibromoethane	4.4	U
74-95-3	Dibromomethane	4.4	U
95-50-1	1,2-Dichlorobenzene	4.4	U
541-73-1	1,3-Dichlorobenzene	4.4	U
106-46-7	1,4-Dichlorobenzene	4.4	U
75-71-8	Dichlorodifluoromethane	8.9	U
75-34-3	1,1-Dichloroethane	4.4	U
107-06-2	1,2-Dichloroethane	4.4	U
156-59-2	cis-1,2-Dichloroethene	4.0	
156-60-5	trans-1,2-Dichloroethene	2.2	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO
Lab Sample ID:A0J140112 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DM6L81AD
Dilution factor: 0.89
Moisture %:15

Date Received: 10/14/00
Date Extracted:10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-A0C 8-2 18'-20'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.4	U
78-87-5	1,2-Dichloropropane	4.4	U
142-28-9	1,3-Dichloropropane	4.4	U
594-20-7	2,2-Dichloropropane	4.4	U
563-58-6	1,1-Dichloropropene	4.4	U
123-91-1	1,4-Dioxane	220	U
100-41-4	Ethylbenzene	4.4	U
87-68-3	Hexachlorobutadiene	4.4	U
98-82-8	Isopropylbenzene	4.4	U
99-87-6	p-Isopropyltoluene	4.4	U
75-09-2	Methylene chloride	4.4	U
91-20-3	Naphthalene	4.4	U
103-65-1	n-Propylbenzene	4.4	U
100-42-5	Styrene	4.4	U
630-20-6	1,1,1,2-Tetrachloroethane	4.4	U
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U
127-18-4	Tetrachloroethene	4.4	U
108-88-3	Toluene	4.4	U
87-61-6	1,2,3-Trichlorobenzene	4.4	U
120-82-1	1,2,4-Trichlorobenzene	4.4	U
71-55-6	1,1,1-Trichloroethane	4.4	U
79-00-5	1,1,2-Trichloroethane	4.4	U
79-01-6	Trichloroethene	31	
75-69-4	Trichlorofluoromethane	8.9	U
96-18-4	1,2,3-Trichloropropane	4.4	U
95-63-6	1,2,4-Trimethylbenzene	4.4	U
108-67-8	1,3,5-Trimethylbenzene	4.4	U
75-01-4	Vinyl chloride	8.9	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J140112 002

Sample WT/Vol: 5 / g
Work Order: DM6L81AD
Dilution factor: 0.89
Moisture %:15

Date Received: 10/14/00
Date Extracted:10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-A0C 8-2 18'-20'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.4	U
95-47-6	o-Xylene	2.2	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO
Lab Sample ID:A0J140112 003

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DM6L91AD
Dilution factor: 1.14
Moisture %:3.7

Date Received: 10/14/00
Date Extracted:10/24/00
Date Analyzed: 10/24/00

QC Batch: 0300124

Client Sample Id: GW-A0C 8-2 38'-40'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	11	U
71-43-2	Benzene	5.7	U
108-86-1	Bromobenzene	5.7	U
74-97-5	Bromochloromethane	5.7	U
75-27-4	Bromodichloromethane	5.7	U
75-25-2	Bromoform	5.7	U
74-83-9	Bromomethane	11	U
104-51-8	n-Butylbenzene	5.7	U
135-98-8	sec-Butylbenzene	5.7	U
98-06-6	tert-Butylbenzene	5.7	U
56-23-5	Carbon tetrachloride	5.7	U
108-90-7	Chlorobenzene	5.7	U
124-48-1	Chlorodibromomethane	5.7	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	5.7	U
74-87-3	Chloromethane	11	U
95-49-8	2-Chlorotoluene	5.7	U
106-43-4	4-Chlorotoluene	5.7	U
106-93-4	1,2-Dibromoethane	5.7	U
74-95-3	Dibromomethane	5.7	U
95-50-1	1,2-Dichlorobenzene	5.7	U
541-73-1	1,3-Dichlorobenzene	5.7	U
106-46-7	1,4-Dichlorobenzene	5.7	U
75-71-8	Dichlorodifluoromethane	11	U
75-34-3	1,1-Dichloroethane	5.7	U
107-06-2	1,2-Dichloroethane	5.7	U
156-59-2	cis-1,2-Dichloroethene	2.8	U
156-60-5	trans-1,2-Dichloroethene	2.8	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6L91AD Date Extracted:10/24/00
Dilution factor: 1.14 Date Analyzed: 10/24/00
Moisture %:3.7

QC Batch: 0300124

Client Sample Id: GW-A0C 8-2 38'-40'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	5.7	U
78-87-5	1,2-Dichloropropane	5.7	U
142-28-9	1,3-Dichloropropane	5.7	U
594-20-7	2,2-Dichloropropane	5.7	U
563-58-6	1,1-Dichloropropene	5.7	U
123-91-1	1,4-Dioxane	280	U
100-41-4	Ethylbenzene	5.7	U
87-68-3	Hexachlorobutadiene	5.7	U
98-82-8	Isopropylbenzene	5.7	U
99-87-6	p-Isopropyltoluene	5.7	U
75-09-2	Methylene chloride	5.7	U
91-20-3	Naphthalene	5.7	U
103-65-1	n-Propylbenzene	5.7	U
100-42-5	Styrene	5.7	U
630-20-6	1,1,1,2-Tetrachloroethane	5.7	U
79-34-5	1,1,2,2-Tetrachloroethane	5.7	U
127-18-4	Tetrachloroethene	5.7	U
108-88-3	Toluene	5.7	U
87-61-6	1,2,3-Trichlorobenzene	5.7	U
120-82-1	1,2,4-Trichlorobenzene	5.7	U
71-55-6	1,1,1-Trichloroethane	5.7	U
79-00-5	1,1,2-Trichloroethane	5.7	U
79-01-6	Trichloroethene	5.7	U
75-69-4	Trichlorofluoromethane	11	U
96-18-4	1,2,3-Trichloropropane	5.7	U
95-63-6	1,2,4-Trimethylbenzene	5.7	U
108-67-8	1,3,5-Trimethylbenzene	5.7	U
75-01-4	Vinyl chloride	11	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6L91AD Date Extracted:10/24/00
Dilution factor: 1.14 Date Analyzed: 10/24/00
Moisture %:3.7

QC Batch: 0300124

Client Sample Id: GW-A0C 8-2 38'-40'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	5.7	U
95-47-6	o-Xylene	2.8	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6MA1AD Date Extracted:10/24/00
Dilution factor: 0.91 Date Analyzed: 10/24/00
Moisture %:4.8

QC Batch: 0300124

Client Sample Id: GW-A0C 10-1 0'-2'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	9.1	U
71-43-2	Benzene	4.6	U
108-86-1	Bromobenzene	4.6	U
74-97-5	Bromochloromethane	4.6	U
75-27-4	Bromodichloromethane	4.6	U
75-25-2	Bromoform	4.6	U
74-83-9	Bromomethane	9.1	U
104-51-8	n-Butylbenzene	4.6	U
135-98-8	sec-Butylbenzene	4.6	U
98-06-6	tert-Butylbenzene	4.6	U
56-23-5	Carbon tetrachloride	4.6	U
108-90-7	Chlorobenzene	4.6	U
124-48-1	Chlorodibromomethane	4.6	U
75-00-3	Chloroethane	9.1	U
67-66-3	Chloroform	4.6	U
74-87-3	Chloromethane	9.1	U
95-49-8	2-Chlorotoluene	4.6	U
106-43-4	4-Chlorotoluene	4.6	U
106-93-4	1,2-Dibromoethane	4.6	U
74-95-3	Dibromomethane	4.6	U
95-50-1	1,2-Dichlorobenzene	4.6	U
541-73-1	1,3-Dichlorobenzene	4.6	U
106-46-7	1,4-Dichlorobenzene	4.6	U
75-71-8	Dichlorodifluoromethane	9.1	U
75-34-3	1,1-Dichloroethane	4.6	U
107-06-2	1,2-Dichloroethane	4.6	U
156-59-2	cis-1,2-Dichloroethene	2.3	U
156-60-5	trans-1,2-Dichloroethene	2.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6MA1AD Date Extracted:10/24/00
Dilution factor: 0.91 Date Analyzed: 10/24/00
Moisture %:4.8

QC Batch: 0300124

Client Sample Id: GW-A0C 10-1 0'-2'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.6	U
78-87-5	1,2-Dichloropropane	4.6	U
142-28-9	1,3-Dichloropropane	4.6	U
594-20-7	2,2-Dichloropropane	4.6	U
563-58-6	1,1-Dichloropropene	4.6	U
123-91-1	1,4-Dioxane	230	U
100-41-4	Ethylbenzene	4.6	U
87-68-3	Hexachlorobutadiene	4.6	U
98-82-8	Isopropylbenzene	4.6	U
99-87-6	p-Isopropyltoluene	4.6	U
75-09-2	Methylene chloride	4.6	U
91-20-3	Naphthalene	4.6	U
103-65-1	n-Propylbenzene	4.6	U
100-42-5	Styrene	4.6	U
630-20-6	1,1,1,2-Tetrachloroethane	4.6	U
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U
127-18-4	Tetrachloroethene	4.6	U
108-88-3	Toluene	4.6	U
87-61-6	1,2,3-Trichlorobenzene	4.6	U
120-82-1	1,2,4-Trichlorobenzene	4.6	U
71-55-6	1,1,1-Trichloroethane	4.6	U
79-00-5	1,1,2-Trichloroethane	4.6	U
79-01-6	Trichloroethene	4.6	U
75-69-4	Trichlorofluoromethane	9.1	U
96-18-4	1,2,3-Trichloropropane	4.6	U
95-63-6	1,2,4-Trimethylbenzene	4.6	U
108-67-8	1,3,5-Trimethylbenzene	4.6	U
75-01-4	Vinyl chloride	9.1	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6MA1AD Date Extracted:10/24/00
Dilution factor: 0.91 Date Analyzed: 10/24/00
Moisture %:4.8

QC Batch: 0300124

Client Sample Id: GW-A0C 10-1 0'-2'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.6	U
95-47-6	o-Xylene	2.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6MD1AD Date Extracted:10/24/00
Dilution factor: 0.88 Date Analyzed: 10/24/00
Moisture %:13

QC Batch: 0300124

Client Sample Id: GW-A0C 10-1 18'-20'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	8.8	U
71-43-2	Benzene	4.4	U
108-86-1	Bromobenzene	4.4	U
74-97-5	Bromochloromethane	4.4	U
75-27-4	Bromodichloromethane	4.4	U
75-25-2	Bromoform	4.4	U
74-83-9	Bromomethane	8.8	U
104-51-8	n-Butylbenzene	4.4	U
135-98-8	sec-Butylbenzene	4.4	U
98-06-6	tert-Butylbenzene	4.4	U
56-23-5	Carbon tetrachloride	4.4	U
108-90-7	Chlorobenzene	4.4	U
124-48-1	Chlorodibromomethane	4.4	U
75-00-3	Chloroethane	8.8	U
67-66-3	Chloroform	4.4	U
74-87-3	Chloromethane	8.8	U
95-49-8	2-Chlorotoluene	4.4	U
106-43-4	4-Chlorotoluene	4.4	U
106-93-4	1,2-Dibromoethane	4.4	U
74-95-3	Dibromomethane	4.4	U
95-50-1	1,2-Dichlorobenzene	4.4	U
541-73-1	1,3-Dichlorobenzene	4.4	U
106-46-7	1,4-Dichlorobenzene	4.4	U
75-71-8	Dichlorodifluoromethane	8.8	U
75-34-3	1,1-Dichloroethane	4.4	U
107-06-2	1,2-Dichloroethane	4.4	U
156-59-2	cis-1,2-Dichloroethene	2.2	U
156-60-5	trans-1,2-Dichloroethene	2.2	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6MD1AD Date Extracted:10/24/00
Dilution factor: 0.88 Date Analyzed: 10/24/00
Moisture %:13

QC Batch: 0300124

Client Sample Id: GW-A0C 10-1 18'-20'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.4	U
78-87-5	1,2-Dichloropropane	4.4	U
142-28-9	1,3-Dichloropropane	4.4	U
594-20-7	2,2-Dichloropropane	4.4	U
563-58-6	1,1-Dichloropropene	4.4	U
123-91-1	1,4-Dioxane	220	U
100-41-4	Ethylbenzene	4.4	U
87-68-3	Hexachlorobutadiene	4.4	U
98-82-8	Isopropylbenzene	4.4	U
99-87-6	p-Isopropyltoluene	4.4	U
75-09-2	Methylene chloride	4.4	U
91-20-3	Naphthalene	4.4	U
103-65-1	n-Propylbenzene	4.4	U
100-42-5	Styrene	4.4	U
630-20-6	1,1,1,2-Tetrachloroethane	4.4	U
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U
127-18-4	Tetrachloroethene	4.4	U
108-88-3	Toluene	4.4	U
87-61-6	1,2,3-Trichlorobenzene	4.4	U
120-82-1	1,2,4-Trichlorobenzene	4.4	U
71-55-6	1,1,1-Trichloroethane	4.4	U
79-00-5	1,1,2-Trichloroethane	4.4	U
79-01-6	Trichloroethene	4.4	U
75-69-4	Trichlorofluoromethane	8.8	U
96-18-4	1,2,3-Trichloropropane	4.4	U
95-63-6	1,2,4-Trimethylbenzene	4.4	U
108-67-8	1,3,5-Trimethylbenzene	4.4	U
75-01-4	Vinyl chloride	8.8	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6MD1AD Date Extracted:10/24/00
Dilution factor: 0.88 Date Analyzed: 10/24/00
Moisture %:13

QC Batch: 0300124

Client Sample Id: GW-A0C 10-1 18'-20'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.4	U
95-47-6	o-Xylene	2.2	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6ME1AD Date Extracted:10/24/00
Dilution factor: 1.56 Date Analyzed: 10/24/00
Moisture %:8.7

QC Batch: 0300124

Client Sample Id: GW-A0C 10-1 38'-40'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	16	U
71-43-2	Benzene	7.8	U
108-86-1	Bromobenzene	7.8	U
74-97-5	Bromochloromethane	7.8	U
75-27-4	Bromodichloromethane	7.8	U
75-25-2	Bromoform	7.8	U
74-83-9	Bromomethane	16	U
104-51-8	n-Butylbenzene	7.8	U
135-98-8	sec-Butylbenzene	7.8	U
98-06-6	tert-Butylbenzene	7.8	U
56-23-5	Carbon tetrachloride	7.8	U
108-90-7	Chlorobenzene	7.8	U
124-48-1	Chlorodibromomethane	7.8	U
75-00-3	Chloroethane	16	U
67-66-3	Chloroform	7.8	U
74-87-3	Chloromethane	16	U
95-49-8	2-Chlorotoluene	7.8	U
106-43-4	4-Chlorotoluene	7.8	U
106-93-4	1,2-Dibromoethane	7.8	U
74-95-3	Dibromomethane	7.8	U
95-50-1	1,2-Dichlorobenzene	7.8	U
541-73-1	1,3-Dichlorobenzene	7.8	U
106-46-7	1,4-Dichlorobenzene	16	U
75-71-8	Dichlorodifluoromethane	7.8	U
75-34-3	1,1-Dichloroethane	7.8	U
107-06-2	1,2-Dichloroethane	3.9	U
156-59-2	cis-1,2-Dichloroethene	3.9	U
156-60-5	trans-1,2-Dichloroethene		

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6ME1AD Date Extracted:10/24/00
Dilution factor: 1.56 Date Analyzed: 10/24/00
Moisture %:8.7

QC Batch: 0300124

Client Sample Id: GW-A0C 10-1 38'-40'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	7.8	U
78-87-5	1,2-Dichloropropane	7.8	U
142-28-9	1,3-Dichloropropane	7.8	U
594-20-7	2,2-Dichloropropane	7.8	U
563-58-6	1,1-Dichloropropene	7.8	U
123-91-1	1,4-Dioxane	390	U
100-41-4	Ethylbenzene	7.8	U
87-68-3	Hexachlorobutadiene	7.8	U
98-82-8	Isopropylbenzene	7.8	U
99-87-6	p-Isopropyltoluene	7.8	U
75-09-2	Methylene chloride	7.8	U
91-20-3	Naphthalene	7.8	U
103-65-1	n-Propylbenzene	7.8	U
100-42-5	Styrene	7.8	U
630-20-6	1,1,1,2-Tetrachloroethane	7.8	U
79-34-5	1,1,2,2-Tetrachloroethane	7.8	U
127-18-4	Tetrachloroethene	7.8	U
108-88-3	Toluene	7.8	U
87-61-6	1,2,3-Trichlorobenzene	7.8	U
120-82-1	1,2,4-Trichlorobenzene	7.8	U
71-55-6	1,1,1-Trichloroethane	7.8	U
79-00-5	1,1,2-Trichloroethane	7.8	U
79-01-6	Trichloroethene	7.8	U
75-69-4	Trichlorofluoromethane	16	U
96-18-4	1,2,3-Trichloropropane	7.8	U
95-63-6	1,2,4-Trimethylbenzene	7.8	U
108-67-8	1,3,5-Trimethylbenzene	7.8	U
75-01-4	Vinyl chloride	16	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) SO Lab Sample ID:A0J140112 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/14/00
Work Order: DM6MR1AD Date Extracted:10/24/00
Dilution factor: 1.56 Date Analyzed: 10/24/00
Moisture %:8.7

QC Batch: 0300124

Client Sample Id: GW-A0C 10-1 38'-40'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	7.8	U
95-47-6	o-Xylene	3.9	U

Received 12/4/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING-LOUISVILLE

Lot #: A0K010157

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 29, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
LAW	Rhonda Quinn	10/30/00	49220
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
3200 Town Point Dr. NW	(770) 421-3400 / (770) 421-3486		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144		Becky Strait	
Project Name	**Carrier/Waybill Number**		
Thermo King - Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		Analysis: 8260B	1,4-Dioxane		Special Instructions/ Conditions of Receipt
GW-AOC 3-2 (48'-52')	10/30/00	1730	X							3				✓	✓		Analyze according to Rhonda Quinn's requests.
GW-AOC 3-2 (60'-64')	10/30/00	1940	X							3				✓	✓		
SO-AOC-1-1 (0'-2')	10/31/00	0930			X		4							✓	✓		
SO-AOC 1-1 (29'-31')	10/31/00	1047			X		4							✓	✓		
SO-AOC 1-1 (38'-40')	10/31/00	1100			X		4							✓	✓		
GW-AOC 1-1 (40'-44')	10/31/00	1125	X							3				✓	✓		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☒ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other_____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	Chris Kunkel	10/31/00	1500	Anne Sanders	11-1-00	1020 AM
2.						
3.						

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton TN

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID:A0K010157 003

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 6.02 / g
Work Order: DN6DR1AD
Dilution factor: 0.83
Moisture %:14

Date Received: 11/01/00
Date Extracted:11/02/00
Date Analyzed: 11/09/00

QC Batch: 0315512

Client Sample Id: SO-AOC-1-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	210	U
108-86-1	Bromobenzene	210	U
74-97-5	Bromochloromethane	210	U
75-27-4	Bromodichloromethane	210	U
75-25-2	Bromoform	210	U
74-83-9	Bromomethane	420	U
104-51-8	n-Butylbenzene	210	U
135-98-8	sec-Butylbenzene	210	U
98-06-6	tert-Butylbenzene	210	U
56-23-5	Carbon tetrachloride	210	U
108-90-7	Chlorobenzene	210	U
124-48-1	Chlorodibromomethane	210	U
96-12-8	1,2-Dibromo-3-chloropropane	420	U
75-00-3	Chloroethane	420	U
67-66-3	Chloroform	210	U
74-87-3	Chloromethane	420	U
95-49-8	2-Chlorotoluene	210	U
106-43-4	4-Chlorotoluene	210	U
106-93-4	1,2-Dibromoethane	210	U
74-95-3	Dibromomethane	210	U
95-50-1	1,2-Dichlorobenzene	210	U
541-73-1	1,3-Dichlorobenzene	210	U
106-46-7	1,4-Dichlorobenzene	210	U
75-71-8	Dichlorodifluoromethane	420	U
75-34-3	1,1-Dichloroethane	210	U
107-06-2	1,2-Dichloroethane	210	U
75-35-4	1,1-Dichloroethene	210	U
156-59-2	cis-1,2-Dichloroethene	100	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID:A0K010157 003

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 6.02 / g
Work Order: DN6DR1AD
Dilution factor: 0.83
Moisture %:14

Date Received: 11/01/00
Date Extracted:11/02/00
Date Analyzed: 11/09/00

QC Batch: 0315512

Client Sample Id: SO-AOC-1-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	100	U
78-87-5	1,2-Dichloropropane	210	U
142-28-9	1,3-Dichloropropane	210	U
594-20-7	2,2-Dichloropropane	210	U
563-58-6	1,1-Dichloropropene	210	U
123-91-1	1,4-Dioxane	250000	
100-41-4	Ethylbenzene	210	U
75-69-4	Trichlorofluoromethane	420	U
87-68-3	Hexachlorobutadiene	210	U
98-82-8	Isopropylbenzene	210	U
99-87-6	p-Isopropyltoluene	210	U
75-09-2	Methylene chloride	210	U
91-20-3	Naphthalene	210	U
103-65-1	n-Propylbenzene	210	U
100-42-5	Styrene	210	U
630-20-6	1,1,1,2-Tetrachloroethane	210	U
79-34-5	1,1,2,2-Tetrachloroethane	210	U
127-18-4	Tetrachloroethene	210	U
108-88-3	Toluene	210	U
87-61-6	1,2,3-Trichlorobenzene	210	U
120-82-1	1,2,4-Trichlorobenzene	210	U
71-55-6	1,1,1-Trichloroethane	210	U
79-00-5	1,1,2-Trichloroethane	210	U
79-01-6	Trichloroethene	210	U
96-18-4	1,2,3-Trichloropropane	210	U
95-63-6	1,2,4-Trimethylbenzene	210	U
108-67-8	1,3,5-Trimethylbenzene	210	U
75-01-4	Vinyl chloride	420	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0K010157 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 6.02 / g Date Received: 11/01/00
Work Order: DN6DR1AD Date Extracted:11/02/00
Dilution factor: 0.83 Date Analyzed: 11/09/00
Moisture %:14

QC Batch: 0315512

Client Sample Id: SO-AOC-1-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	100	U
136777-61-2	m-Xylene & p-Xylene	210	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID:A0K010157 004

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DN6D01AD
Dilution factor: 1.44
Moisture %:3.2

Date Received: 11/01/00
Date Extracted:11/07/00
Date Analyzed: 11/07/00

QC Batch: 0313219

Client Sample Id: SO-AOC 1-1 (29'-31')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	7.2	U
108-86-1	Bromobenzene	7.2	U
74-97-5	Bromochloromethane	7.2	U
75-27-4	Bromodichloromethane	7.2	U
75-25-2	Bromoform	7.2	U
74-83-9	Bromomethane	14	U
104-51-8	n-Butylbenzene	7.2	U
135-98-8	sec-Butylbenzene	7.2	U
98-06-6	tert-Butylbenzene	7.2	U
56-23-5	Carbon tetrachloride	7.2	U
108-90-7	Chlorobenzene	7.2	U
124-48-1	Chlorodibromomethane	7.2	U
96-12-8	1,2-Dibromo-3-chloropropane	14	U
75-00-3	Chloroethane	14	U
67-66-3	Chloroform	7.2	U
74-87-3	Chloromethane	14	U
95-49-8	2-Chlorotoluene	7.2	U
106-43-4	4-Chlorotoluene	7.2	U
106-93-4	1,2-Dibromoethane	7.2	U
74-95-3	Dibromomethane	7.2	U
95-50-1	1,2-Dichlorobenzene	7.2	U
541-73-1	1,3-Dichlorobenzene	7.2	U
106-46-7	1,4-Dichlorobenzene	7.2	U
75-71-8	Dichlorodifluoromethane	14	U
75-34-3	1,1-Dichloroethane	7.2	U
107-06-2	1,2-Dichloroethane	7.2	U
75-35-4	1,1-Dichloroethene	7.2	U
156-59-2	cis-1,2-Dichloroethene	3.6	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID: A0K010157 004

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DN6D01AD
Dilution factor: 1.44
Moisture %: 3.2

Date Received: 11/01/00
Date Extracted: 11/07/00
Date Analyzed: 11/07/00

QC Batch: 0313219

Client Sample Id: SO-AOC 1-1 (29'-31')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	3.6	U
78-87-5	1,2-Dichloropropane	7.2	U
142-28-9	1,3-Dichloropropane	7.2	U
594-20-7	2,2-Dichloropropane	7.2	U
563-58-6	1,1-Dichloropropene	7.2	U
123-91-1	1,4-Dioxane	360	U
100-41-4	Ethylbenzene	7.2	U
75-69-4	Trichlorofluoromethane	14	U
87-68-3	Hexachlorobutadiene	7.2	U
98-82-8	Isopropylbenzene	7.2	U
99-87-6	p-Isopropyltoluene	7.2	U
75-09-2	Methylene chloride	7.2	U
91-20-3	Naphthalene	7.2	U
103-65-1	n-Propylbenzene	7.2	U
100-42-5	Styrene	7.2	U
630-20-6	1,1,1,2-Tetrachloroethane	7.2	U
79-34-5	1,1,2,2-Tetrachloroethane	7.2	U
127-18-4	Tetrachloroethene	7.2	U
108-88-3	Toluene	7.2	U
87-61-6	1,2,3-Trichlorobenzene	7.2	U
120-82-1	1,2,4-Trichlorobenzene	86	
71-55-6	1,1,1-Trichloroethane	7.2	U
79-00-5	1,1,2-Trichloroethane	7.2	U
79-01-6	Trichloroethene	7.2	U
96-18-4	1,2,3-Trichloropropane	7.2	U
95-63-6	1,2,4-Trimethylbenzene	7.2	U
108-67-8	1,3,5-Trimethylbenzene	14	U
75-01-4	Vinyl chloride		U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID:A0K010157 004

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DN6D01AD
Dilution factor: 1.44
Moisture %:3.2

Date Received: 11/01/00
Date Extracted:11/07/00
Date Analyzed: 11/07/00

QC Batch: 0313219

Client Sample Id: SO-AOC 1-1 (29'-31')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	3.6	U
136777-61-2	m-Xylene & p-Xylene	7.2	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0K010157 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 11/01/00
Work Order: DN6D11AD Date Extracted:11/07/00
Dilution factor: 1.05 Date Analyzed: 11/07/00
Moisture %:5.8

QC Batch: 0313219

Client Sample Id: SO-AOC 1-1 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	5.2	U
108-86-1	Bromobenzene	5.2	U
74-97-5	Bromochloromethane	5.2	U
75-27-4	Bromodichloromethane	5.2	U
75-25-2	Bromoform	5.2	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.2	U
135-98-8	sec-Butylbenzene	5.2	U
98-06-6	tert-Butylbenzene	5.2	U
56-23-5	Carbon tetrachloride	5.2	U
108-90-7	Chlorobenzene	5.2	U
124-48-1	Chlorodibromomethane	5.2	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.2	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.2	U
106-43-4	4-Chlorotoluene	5.2	U
106-93-4	1,2-Dibromoethane	5.2	U
74-95-3	Dibromomethane	5.2	U
95-50-1	1,2-Dichlorobenzene	5.2	U
541-73-1	1,3-Dichlorobenzene	5.2	U
106-46-7	1,4-Dichlorobenzene	5.2	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.2	U
107-06-2	1,2-Dichloroethane	5.2	U
75-35-4	1,1-Dichloroethene	5.2	U
156-59-2	cis-1,2-Dichloroethene	2.6	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0K010157 005

Sample WT/Vol: 5 / g
Work Order: DN6D11AD
Dilution factor: 1.05
Moisture %:5.8

Date Received: 11/01/00
Date Extracted:11/07/00
Date Analyzed: 11/07/00

QC Batch: 0313219

Client Sample Id: SO-AOC 1-1 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	2.6	U
78-87-5	1,2-Dichloropropane	5.2	U
142-28-9	1,3-Dichloropropane	5.2	U
594-20-7	2,2-Dichloropropane	5.2	U
563-58-6	1,1-Dichloropropene	5.2	U
123-91-1	1,4-Dioxane	260	U
100-41-4	Ethylbenzene	5.2	U
75-69-4	Trichlorofluoromethane	10	U
87-68-3	Hexachlorobutadiene	5.2	U
98-82-8	Isopropylbenzene	5.2	U
99-87-6	p-Isopropyltoluene	5.2	U
75-09-2	Methylene chloride	5.2	U
91-20-3	Naphthalene	5.2	U
103-65-1	n-Propylbenzene	5.2	U
100-42-5	Styrene	5.2	U
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U
127-18-4	Tetrachloroethene	5.2	U
108-88-3	Toluene	5.2	U
87-61-6	1,2,3-Trichlorobenzene	5.2	U
120-82-1	1,2,4-Trichlorobenzene	5.2	U
71-55-6	1,1,1-Trichloroethane	85	
79-00-5	1,1,2-Trichloroethane	5.2	U
79-01-6	Trichloroethene	5.2	U
96-18-4	1,2,3-Trichloropropane	5.2	U
95-63-6	1,2,4-Trimethylbenzene	5.2	U
108-67-8	1,3,5-Trimethylbenzene	5.2	U
75-01-4	Vinyl chloride	10	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID:A0K010157 005

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DN6D11AD
Dilution factor: 1.05
Moisture %:5.8

Date Received: 11/01/00
Date Extracted:11/07/00
Date Analyzed: 11/07/00

QC Batch: 0313219

Client Sample Id: SO-AOC 1-1 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	2.6	U
136777-61-2	m-Xylene & p-Xylene	5.2	U

Received 11/15/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING-LOUISVILLE
SDG #: 0J18228

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 13, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/17/00	Chain of Custody Number: 48903
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: (770) 421-3516 / (770) 421-3486	Lab Number:	Page 1 of
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King-Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H_2SO_4	HNO3	HCl	NaOH	Zn Ac/ NaOH	8260B	1,4-Dioxane
GW-AOC 2-1 (42'-46')	10/17/00	1030	X							3			✓	✓
~~GW-AOC 2-1~~	~~10/17/00~~		X							3			✓	✓
~~GW-AOC 2-1~~	~~10/17/00~~		X							3			✓	✓
GW-AOC 2-1 (0'-2')	10/17/00	1330			X		4						✓	✓
GW-AOC 2-1 (18'-20')	10/17/00	1344			X		4						✓	✓
GW-AOC 2-1 (38'-46')	10/17/00	1352			X		4						✓	✓
Trip Blank			X				1						✓	✓

Special Instructions/ Conditions of Receipt: Analyze samples for Rhonda Quinn

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chris Kudla Jr.	10/17/00	1500	1. Received By: Jennifer Miller	10-18-00	9:20A
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

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[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/18/00	Chain of Custody Number: 48904
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: (770) 421-3516 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260B	1,4-Dioxane	Special Instructions/ Conditions of Receipt
GW-AOC 2-1 (52'-56')	10/17/00	1720	X						3			✓	✓	Analyze samples for
GW-AOC 2-1 (62'-66')	10/17/00	1850	X			3						✓	✓	Rhonda Quinn
EQB	10/18/00	0825	X						3			✓	✓	
GW-AOC 10-1 (44'-48')	10/18/00	1015	X						3			✓	✓	GW-AOC 2-1 (62'-66')
GW-AOC 10-1 (52-56')	10/18/00	1415	X						3			✓	✓	has no preservative
GW-AOC 10-1 (60-64')	10/18/00	1450	X						3			✓	✓	
GW-AOC 8-1 (40-44')	10/18/00	1735	X						3			✓	✓	
GW-AOC 8-1 (49-53')	10/19/00	1045	X						3			✓	✓	
GW-AOC 8-1 (58-62')	10/19/00	1117	X						3			✓	✓	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	10/19/00	1321	1. Received By: [signature]	10/25/00	905
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

17

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) SO Lab Sample ID:A0J180228 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.34 / g Date Received: 10/18/00
Work Order: DNCWE1AD Date Extracted:10/21/00
Dilution factor: 0.93 Date Analyzed: 10/21/00
Moisture %:13

QC Batch: 0297167

Client Sample Id: GW-AOC 2-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	9.3	U
71-43-2	Benzene	4.6	U
108-86-1	Bromobenzene	4.6	U
74-97-5	Bromochloromethane	4.6	U
75-27-4	Bromodichloromethane	4.6	U
75-25-2	Bromoform	4.6	U
74-83-9	Bromomethane	9.3	U
104-51-8	n-Butylbenzene	4.6	U
135-98-8	sec-Butylbenzene	4.6	U
98-06-6	tert-Butylbenzene	4.6	U
56-23-5	Carbon tetrachloride	4.6	U
108-90-7	Chlorobenzene	4.6	U
124-48-1	Chlorodibromomethane	4.6	U
75-00-3	Chloroethane	9.3	U
67-66-3	Chloroform	4.6	U
74-87-3	Chloromethane	9.3	U
95-49-8	2-Chlorotoluene	4.6	U
106-43-4	4-Chlorotoluene	4.6	U
106-93-4	1,2-Dibromoethane	4.6	U
74-95-3	Dibromomethane	4.6	U
95-50-1	1,2-Dichlorobenzene	4.6	U
541-73-1	1,3-Dichlorobenzene	4.6	U
106-46-7	1,4-Dichlorobenzene	4.6	U
75-71-8	Dichlorodifluoromethane	9.3	U
75-34-3	1,1-Dichloroethane	4.6	U
107-06-2	1,2-Dichloroethane	4.6	U
156-59-2	cis-1,2-Dichloroethene	2.3	U
156-60-5	trans-1,2-Dichloroethene	2.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) SO Lab Sample ID:A0J180228 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.34 / g Date Received: 10/18/00
Work Order: DNCWE1AD Date Extracted:10/21/00
Dilution factor: 0.93 Date Analyzed: 10/21/00
Moisture %:13

QC Batch: 0297167

Client Sample Id: GW-AOC 2-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.6	U
78-87-5	1,2-Dichloropropane	4.6	U
142-28-9	1,3-Dichloropropane	4.6	U
594-20-7	2,2-Dichloropropane	4.6	U
563-58-6	1,1-Dichloropropene	4.6	U
123-91-1	1,4-Dioxane	230	U
100-41-4	Ethylbenzene	4.6	U
87-68-3	Hexachlorobutadiene	4.6	U
98-82-8	Isopropylbenzene	4.6	U
99-87-6	p-Isopropyltoluene	4.6	U
75-09-2	Methylene chloride	4.6	U
91-20-3	Naphthalene	4.6	U
103-65-1	n-Propylbenzene	4.6	U
100-42-5	Styrene	4.6	U
630-20-6	1,1,1,2-Tetrachloroethane	4.6	U
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U
127-18-4	Tetrachloroethene	4.6	U
108-88-3	Toluene	4.6	U
87-61-6	1,2,3-Trichlorobenzene	4.6	U
120-82-1	1,2,4-Trichlorobenzene	4.6	U
71-55-6	1,1,1-Trichloroethane	4.6	U
79-00-5	1,1,2-Trichloroethane	4.6	U
79-01-6	Trichloroethene	4.6	U
75-69-4	Trichlorofluoromethane	9.3	U
96-18-4	1,2,3-Trichloropropane	4.6	U
95-63-6	1,2,4-Trimethylbenzene	4.6	U
108-67-8	1,3,5-Trimethylbenzene	4.6	U
75-01-4	Vinyl chloride	9.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) SO Lab Sample ID:A0J180228 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.34 / g Date Received: 10/18/00
Work Order: DNCWE1AD Date Extracted:10/21/00
Dilution factor: 0.93 Date Analyzed: 10/21/00
Moisture %:13

QC Batch: 0297167

Client Sample Id: GW-AOC 2-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.6	U
95-47-6	o-Xylene	2.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) SO Lab Sample ID:A0J180228 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.57 / g Date Received: 10/18/00
Work Order: DNCWH1AD Date Extracted:10/21/00
Dilution factor: 0.89 Date Analyzed: 10/21/00
Moisture %:9.4

QC Batch: 0297167

Client Sample Id: GW-AOC 2-1 (18'-20')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	8.9	U
71-43-2	Benzene	4.4	U
108-86-1	Bromobenzene	4.4	U
74-97-5	Bromochloromethane	4.4	U
75-27-4	Bromodichloromethane	4.4	U
75-25-2	Bromoform	4.4	U
74-83-9	Bromomethane	8.9	U
104-51-8	n-Butylbenzene	4.4	U
135-98-8	sec-Butylbenzene	4.4	U
98-06-6	tert-Butylbenzene	4.4	U
56-23-5	Carbon tetrachloride	4.4	U
108-90-7	Chlorobenzene	4.4	U
124-48-1	Chlorodibromomethane	4.4	U
75-00-3	Chloroethane	8.9	U
67-66-3	Chloroform	4.4	U
74-87-3	Chloromethane	8.9	U
95-49-8	2-Chlorotoluene	4.4	U
106-43-4	4-Chlorotoluene	4.4	U
106-93-4	1,2-Dibromoethane	4.4	U
74-95-3	Dibromomethane	4.4	U
95-50-1	1,2-Dichlorobenzene	4.4	U
541-73-1	1,3-Dichlorobenzene	4.4	U
106-46-7	1,4-Dichlorobenzene	4.4	U
75-71-8	Dichlorodifluoromethane	8.9	U
75-34-3	1,1-Dichloroethane	4.4	U
107-06-2	1,2-Dichloroethane	4.4	U
156-59-2	cis-1,2-Dichloroethene	2.2	U
156-60-5	trans-1,2-Dichloroethene	2.2	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) SO Lab Sample ID:A0J180228 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.57 / g Date Received: 10/18/00
Work Order: DNCWH1AD Date Extracted:10/21/00
Dilution factor: 0.89 Date Analyzed: 10/21/00
Moisture %:9.4

QC Batch: 0297167

Client Sample Id: GW-AOC 2-1 (18'-20')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	4.4	U
78-87-5	1,2-Dichloropropane	4.4	U
142-28-9	1,3-Dichloropropane	4.4	U
594-20-7	2,2-Dichloropropane	4.4	U
563-58-6	1,1-Dichloropropene	4.4	U
123-91-1	1,4-Dioxane	220	U
100-41-4	Ethylbenzene	4.4	U
87-68-3	Hexachlorobutadiene	4.4	U
98-82-8	Isopropylbenzene	4.4	U
99-87-6	p-Isopropyltoluene	4.4	U
75-09-2	Methylene chloride	4.4	U
91-20-3	Naphthalene	4.4	U
103-65-1	n-Propylbenzene	4.4	U
100-42-5	Styrene	4.4	U
630-20-6	1,1,1,2-Tetrachloroethane	4.4	U
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U
127-18-4	Tetrachloroethene	4.4	U
108-88-3	Toluene	4.4	U
87-61-6	1,2,3-Trichlorobenzene	4.4	U
120-82-1	1,2,4-Trichlorobenzene	4.4	U
71-55-6	1,1,1-Trichloroethane	4.4	U
79-00-5	1,1,2-Trichloroethane	4.4	U
79-01-6	Trichloroethene	4.4	U
75-69-4	Trichlorofluoromethane	8.9	U
96-18-4	1,2,3-Trichloropropane	4.4	U
95-63-6	1,2,4-Trimethylbenzene	4.4	U
108-67-8	1,3,5-Trimethylbenzene	4.4	U
75-01-4	Vinyl chloride	8.9	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) SO Lab Sample ID:A0J180228 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.57 / g Date Received: 10/18/00
Work Order: DNCWH1AD Date Extracted:10/21/00
Dilution factor: 0.89 Date Analyzed: 10/21/00
Moisture %:9.4

QC Batch: 0297167

Client Sample Id: GW-AOC 2-1 (18'-20')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	4.4	U
95-47-6	o-Xylene	2.2	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) SO Lab Sample ID:A0J180228 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/18/00
Work Order: DNCWJ1AD Date Extracted:10/23/00
Dilution factor: 1.1 Date Analyzed: 10/23/00
Moisture %:4.8

QC Batch: 0298260

Client Sample Id: GW-AOC 2-1 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	5.5	U
108-86-1	Bromobenzene	5.5	U
74-97-5	Bromochloromethane	5.5	U
75-27-4	Bromodichloromethane	5.5	U
75-25-2	Bromoform	5.5	U
74-83-9	Bromomethane	11	U
104-51-8	n-Butylbenzene	5.5	U
135-98-8	sec-Butylbenzene	5.5	U
98-06-6	tert-Butylbenzene	5.5	U
56-23-5	Carbon tetrachloride	5.5	U
108-90-7	Chlorobenzene	5.5	U
124-48-1	Chlorodibromomethane	5.5	U
96-12-8	1,2-Dibromo-3-chloropropane	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	5.5	U
74-87-3	Chloromethane	11	U
95-49-8	2-Chlorotoluene	5.5	U
106-43-4	4-Chlorotoluene	5.5	U
106-93-4	1,2-Dibromoethane	5.5	U
74-95-3	Dibromomethane	5.5	U
95-50-1	1,2-Dichlorobenzene	5.5	U
541-73-1	1,3-Dichlorobenzene	5.5	U
106-46-7	1,4-Dichlorobenzene	5.5	U
75-71-8	Dichlorodifluoromethane	11	U
75-34-3	1,1-Dichloroethane	5.5	U
107-06-2	1,2-Dichloroethane	5.5	U
75-35-4	1,1-Dichloroethene	5.5	U
156-59-2	cis-1,2-Dichloroethene	2.8	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) SO Lab Sample ID:A0J180228 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/18/00
Work Order: DNCWJ1AD Date Extracted:10/23/00
Dilution factor: 1.1 Date Analyzed: 10/23/00
Moisture %:4.8

QC Batch: 0298260

Client Sample Id: GW-AOC 2-1 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	2.8	U
78-87-5	1,2-Dichloropropane	5.5	U
142-28-9	1,3-Dichloropropane	5.5	U
594-20-7	2,2-Dichloropropane	5.5	U
563-58-6	1,1-Dichloropropene	5.5	U
123-91-1	1,4-Dioxane	280	U
100-41-4	Ethylbenzene	5.5	U
75-69-4	Trichlorofluoromethane	11	U
87-68-3	Hexachlorobutadiene	5.5	U
98-82-8	Isopropylbenzene	5.5	U
99-87-6	p-Isopropyltoluene	5.5	U
75-09-2	Methylene chloride	5.5	U
91-20-3	Naphthalene	5.5	U
103-65-1	n-Propylbenzene	5.5	U
100-42-5	Styrene	5.5	U
630-20-6	1,1,1,2-Tetrachloroethane	5.5	U
79-34-5	1,1,2,2-Tetrachloroethane	5.5	U
127-18-4	Tetrachloroethene	5.5	U
108-88-3	Toluene	5.5	U
87-61-6	1,2,3-Trichlorobenzene	5.5	U
120-82-1	1,2,4-Trichlorobenzene	5.5	U
71-55-6	1,1,1-Trichloroethane	5.5	U
79-00-5	1,1,2-Trichloroethane	5.5	U
79-01-6	Trichloroethene	5.5	U
96-18-4	1,2,3-Trichloropropane	5.5	U
95-63-6	1,2,4-Trimethylbenzene	5.5	U
108-67-8	1,3,5-Trimethylbenzene	5.5	U
75-01-4	Vinyl chloride	11	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) SO Lab Sample ID:A0J180228 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/18/00
Work Order: DNCWJ1AD Date Extracted:10/23/00
Dilution factor: 1.1 Date Analyzed: 10/23/00
Moisture %:4.8

QC Batch: 0298260

Client Sample Id: GW-AOC 2-1 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	2.8	U
136777-61-2	m-Xylene & p-Xylene	5.5	U

Received 12/4/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING-LOUISVILLE

Lot #: A0J310185

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 28, 2000

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/30/00	Chain of Custody Number: 49223
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260B	1,4-Dioxane	Special Instructions/ Conditions of Receipt
SO-AOC 3-2 (0'-2')	10/30/00	1102			X	4						✓	✓	Analyze samples
SO-AOC 3-2 (8'-10')	10/30/00	1330			X	4						✓	✓	for Rhonda Quinn
SO-AOC 3-2 (38'-40')	10/30/00	1438			X	4						✓	✓	
GW-AOC 3-2 (40'-44')	10/30/00	1500	X						3			✓	✓	
SO AOC 3-1 (0'-2)	10/30/00	0940			X	4						✓	✓	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Christopher Kendrick	10/30/00	1515	1. Received By: [signature]	10/31/00	915
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

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LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.66 / g Date Received: 10/31/00
Work Order: DN4JA1AD Date Extracted:11/01/00
Dilution factor: 0.88 Date Analyzed: 11/09/00
Moisture %:15

QC Batch: 0315511

Client Sample Id: SO-AOC 3-2 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	220	U
108-86-1	Bromobenzene	220	U
74-97-5	Bromochloromethane	220	U
75-27-4	Bromodichloromethane	220	U
75-25-2	Bromoform	220	U
74-83-9	Bromomethane	440	U
104-51-8	n-Butylbenzene	220	U
135-98-8	sec-Butylbenzene	220	U
98-06-6	tert-Butylbenzene	220	U
56-23-5	Carbon tetrachloride	220	U
108-90-7	Chlorobenzene	220	U
124-48-1	Chlorodibromomethane	220	U
96-12-8	1,2-Dibromo-3-chloropropane	440	U
75-00-3	Chloroethane	440	U
67-66-3	Chloroform	220	U
74-87-3	Chloromethane	440	U
95-49-8	2-Chlorotoluene	220	U
106-43-4	4-Chlorotoluene	220	U
106-93-4	1,2-Dibromoethane	220	U
74-95-3	Dibromomethane	220	U
95-50-1	1,2-Dichlorobenzene	220	U
541-73-1	1,3-Dichlorobenzene	220	U
106-46-7	1,4-Dichlorobenzene	220	U
75-71-8	Dichlorodifluoromethane	440	U
75-34-3	1,1-Dichloroethane	220	U
107-06-2	1,2-Dichloroethane	220	U
75-35-4	1,1-Dichloroethene	220	U
156-59-2	cis-1,2-Dichloroethene	600	

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.66 / g Date Received: 10/31/00
Work Order: DN4JA1AD Date Extracted:11/01/00
Dilution factor: 0.88 Date Analyzed: 11/09/00
Moisture %:15

QC Batch: 0315511

Client Sample Id: SO-AOC 3-2 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	110	U
78-87-5	1,2-Dichloropropane	220	U
142-28-9	1,3-Dichloropropane	220	U
594-20-7	2,2-Dichloropropane	220	U
563-58-6	1,1-Dichloropropene	220	U
123-91-1	1,4-Dioxane	11000	U
100-41-4	Ethylbenzene	220	U
75-69-4	Trichlorofluoromethane	440	U
87-68-3	Hexachlorobutadiene	220	U
98-82-8	Isopropylbenzene	220	U
99-87-6	p-Isopropyltoluene	220	U
75-09-2	Methylene chloride	220	U
91-20-3	Naphthalene	220	U
103-65-1	n-Propylbenzene	220	U
100-42-5	Styrene	220	U
630-20-6	1,1,1,2-Tetrachloroethane	220	U
79-34-5	1,1,2,2-Tetrachloroethane	220	U
127-18-4	Tetrachloroethene	220	U
108-88-3	Toluene	220	U
87-61-6	1,2,3-Trichlorobenzene	220	U
120-82-1	1,2,4-Trichlorobenzene	220	U
71-55-6	1,1,1-Trichloroethane	220	U
79-00-5	1,1,2-Trichloroethane	220	U
79-01-6	Trichloroethene	4100	
96-18-4	1,2,3-Trichloropropane	220	U
95-63-6	1,2,4-Trimethylbenzene	220	U
108-67-8	1,3,5-Trimethylbenzene	220	U
75-01-4	Vinyl chloride	440	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.66 / g Date Received: 10/31/00
Work Order: DN4JA1AD Date Extracted:11/01/00
Dilution factor: 0.88 Date Analyzed: 11/09/00
Moisture %:15

QC Batch: 0315511

Client Sample Id: SO-AOC 3-2 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	110	U
136777-61-2	m-Xylene & p-Xylene	220	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 6.24 / g Date Received: 10/31/00
Work Order: DN4J51AD Date Extracted:11/01/00
Dilution factor: 0.8 Date Analyzed: 11/09/00
Moisture %:14

QC Batch: 0315511

Client Sample Id: SO-AOC 3-2 (8'-10')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	200	U
108-86-1	Bromobenzene	200	U
74-97-5	Bromochloromethane	200	U
75-27-4	Bromodichloromethane	200	U
75-25-2	Bromoform	200	U
74-83-9	Bromomethane	400	U
104-51-8	n-Butylbenzene	200	U
135-98-8	sec-Butylbenzene	200	U
98-06-6	tert-Butylbenzene	200	U
56-23-5	Carbon tetrachloride	200	U
108-90-7	Chlorobenzene	200	U
124-48-1	Chlorodibromomethane	200	U
96-12-8	1,2-Dibromo-3-chloropropane	400	U
75-00-3	Chloroethane	400	U
67-66-3	Chloroform	200	U
74-87-3	Chloromethane	400	U
95-49-8	2-Chlorotoluene	200	U
106-43-4	4-Chlorotoluene	200	U
106-93-4	1,2-Dibromoethane	200	U
74-95-3	Dibromomethane	200	U
95-50-1	1,2-Dichlorobenzene	200	U
541-73-1	1,3-Dichlorobenzene	200	U
106-46-7	1,4-Dichlorobenzene	200	U
75-71-8	Dichlorodifluoromethane	400	U
75-34-3	1,1-Dichloroethane	200	U
107-06-2	1,2-Dichloroethane	200	U
75-35-4	1,1-Dichloroethene	200	U
156-59-2	cis-1,2-Dichloroethene	190	

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 6.24 / g Date Received: 10/31/00
Work Order: DN4J51AD Date Extracted:11/01/00
Dilution factor: 0.8 Date Analyzed: 11/09/00
Moisture %:14

QC Batch: 0315511

Client Sample Id: SO-AOC 3-2 (8'-10')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	100	U
78-87-5	1,2-Dichloropropane	200	U
142-28-9	1,3-Dichloropropane	200	U
594-20-7	2,2-Dichloropropane	200	U
563-58-6	1,1-Dichloropropene	200	U
123-91-1	1,4-Dioxane	10000	U
100-41-4	Ethylbenzene	200	U
75-69-4	Trichlorofluoromethane	400	U
87-68-3	Hexachlorobutadiene	200	U
98-82-8	Isopropylbenzene	200	U
99-87-6	p-Isopropyltoluene	200	U
75-09-2	Methylene chloride	200	U
91-20-3	Naphthalene	200	U
103-65-1	n-Propylbenzene	200	U
100-42-5	Styrene	200	U
630-20-6	1,1,1,2-Tetrachloroethane	200	U
79-34-5	1,1,2,2-Tetrachloroethane	200	U
127-18-4	Tetrachloroethene	200	U
108-88-3	Toluene	200	U
87-61-6	1,2,3-Trichlorobenzene	200	U
120-82-1	1,2,4-Trichlorobenzene	200	U
71-55-6	1,1,1-Trichloroethane	200	U
79-00-5	1,1,2-Trichloroethane	200	U
79-01-6	Trichloroethene	980	
96-18-4	1,2,3-Trichloropropane	200	U
95-63-6	1,2,4-Trimethylbenzene	200	U
108-67-8	1,3,5-Trimethylbenzene	200	U
75-01-4	Vinyl chloride	400	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 6.24 / g Date Received: 10/31/00
Work Order: DN4J51AD Date Extracted:11/01/00
Dilution factor: 0.8 Date Analyzed: 11/09/00
Moisture %:14

QC Batch: 0315511

Client Sample Id: SO-AOC 3-2 (8'-10')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	100	U
136777-61-2	m-Xylene & p-Xylene	200	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/31/00
Work Order: DN4KC1AD Date Extracted:11/06/00
Dilution factor: 1.04 Date Analyzed: 11/06/00
Moisture %:2.7

QC Batch: 0313227

Client Sample Id: SO-AOC 3-2 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	5.2	U
108-86-1	Bromobenzene	5.2	U
74-97-5	Bromochloromethane	5.2	U
75-27-4	Bromodichloromethane	5.2	U
75-25-2	Bromoform	5.2	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.2	U
135-98-8	sec-Butylbenzene	5.2	U
98-06-6	tert-Butylbenzene	5.2	U
56-23-5	Carbon tetrachloride	5.2	U
108-90-7	Chlorobenzene	5.2	U
124-48-1	Chlorodibromomethane	5.2	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.2	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.2	U
106-43-4	4-Chlorotoluene	5.2	U
106-93-4	1,2-Dibromoethane	5.2	U
74-95-3	Dibromomethane	5.2	U
95-50-1	1,2-Dichlorobenzene	5.2	U
541-73-1	1,3-Dichlorobenzene	5.2	U
106-46-7	1,4-Dichlorobenzene	5.2	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.2	U
107-06-2	1,2-Dichloroethane	5.2	U
75-35-4	1,1-Dichloroethene	5.2	U
156-59-2	cis-1,2-Dichloroethene	2.6	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/31/00
Work Order: DN4KC1AD Date Extracted:11/06/00
Dilution factor: 1.04 Date Analyzed: 11/06/00
Moisture %:2.7

QC Batch: 0313227

Client Sample Id: SO-AOC 3-2 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	2.6	U
78-87-5	1,2-Dichloropropane	5.2	U
142-28-9	1,3-Dichloropropane	5.2	U
594-20-7	2,2-Dichloropropane	5.2	U
563-58-6	1,1-Dichloropropene	5.2	U
123-91-1	1,4-Dioxane	260	U
100-41-4	Ethylbenzene	5.2	U
75-69-4	Trichlorofluoromethane	10	U
87-68-3	Hexachlorobutadiene	5.2	U
98-82-8	Isopropylbenzene	5.2	U
99-87-6	p-Isopropyltoluene	5.2	U
75-09-2	Methylene chloride	5.2	U
91-20-3	Naphthalene	5.2	U
103-65-1	n-Propylbenzene	5.2	U
100-42-5	Styrene	5.2	U
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U
127-18-4	Tetrachloroethene	5.2	U
108-88-3	Toluene	5.2	U
87-61-6	1,2,3-Trichlorobenzene	5.2	U
120-82-1	1,2,4-Trichlorobenzene	5.2	U
71-55-6	1,1,1-Trichloroethane	5.2	U
79-00-5	1,1,2-Trichloroethane	5.2	U
79-01-6	Trichloroethene	5.2	U
96-18-4	1,2,3-Trichloropropane	5.2	U
95-63-6	1,2,4-Trimethylbenzene	5.2	U
108-67-8	1,3,5-Trimethylbenzene	5.2	U
75-01-4	Vinyl chloride	10	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 10/31/00
Work Order: DN4KC1AD Date Extracted:11/06/00
Dilution factor: 1.04 Date Analyzed: 11/06/00
Moisture %:2.7

QC Batch: 0313227

Client Sample Id: SO-AOC 3-2 (38'-40')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	2.6	U
136777-61-2	m-Xylene & p-Xylene	5.2	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.35 / g Date Received: 10/31/00
Work Order: DN4KQ1AD Date Extracted:11/01/00
Dilution factor: 0.93 Date Analyzed: 11/09/00
Moisture %:7.1

QC Batch: 0315511

Client Sample Id: SO-AOC 3-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	230	U
108-86-1	Bromobenzene	230	U
74-97-5	Bromochloromethane	230	U
75-27-4	Bromodichloromethane	230	U
75-25-2	Bromoform	230	U
74-83-9	Bromomethane	460	U
104-51-8	n-Butylbenzene	230	U
135-98-8	sec-Butylbenzene	230	U
98-06-6	tert-Butylbenzene	230	U
56-23-5	Carbon tetrachloride	230	U
108-90-7	Chlorobenzene	230	U
124-48-1	Chlorodibromomethane	230	U
96-12-8	1,2-Dibromo-3-chloropropane	460	U
75-00-3	Chloroethane	460	U
67-66-3	Chloroform	230	U
74-87-3	Chloromethane	460	U
95-49-8	2-Chlorotoluene	230	U
106-43-4	4-Chlorotoluene	230	U
106-93-4	1,2-Dibromoethane	230	U
74-95-3	Dibromomethane	230	U
95-50-1	1,2-Dichlorobenzene	230	U
541-73-1	1,3-Dichlorobenzene	230	U
106-46-7	1,4-Dichlorobenzene	230	U
75-71-8	Dichlorodifluoromethane	460	U
75-34-3	1,1-Dichloroethane	230	U
107-06-2	1,2-Dichloroethane	230	U
75-35-4	1,1-Dichloroethene	230	U
156-59-2	cis-1,2-Dichloroethene	120	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.35 / g Date Received: 10/31/00
Work Order: DN4KQ1AD Date Extracted:11/01/00
Dilution factor: 0.93 Date Analyzed: 11/09/00
Moisture %:7.1

QC Batch: 0315511

Client Sample Id: SO-AOC 3-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	120	U
78-87-5	1,2-Dichloropropane	230	U
142-28-9	1,3-Dichloropropane	230	U
594-20-7	2,2-Dichloropropane	230	U
563-58-6	1,1-Dichloropropene	230	U
123-91-1	1,4-Dioxane	12000	
100-41-4	Ethylbenzene	230	U
75-69-4	Trichlorofluoromethane	460	U
87-68-3	Hexachlorobutadiene	230	U
98-82-8	Isopropylbenzene	230	U
99-87-6	p-Isopropyltoluene	230	U
75-09-2	Methylene chloride	230	U
91-20-3	Naphthalene	230	U
103-65-1	n-Propylbenzene	230	U
100-42-5	Styrene	230	U
630-20-6	1,1,1,2-Tetrachloroethane	230	U
79-34-5	1,1,2,2-Tetrachloroethane	230	U
127-18-4	Tetrachloroethene	230	U
108-88-3	Toluene	230	U
87-61-6	1,2,3-Trichlorobenzene	230	U
120-82-1	1,2,4-Trichlorobenzene	230	U
71-55-6	1,1,1-Trichloroethane	230	U
79-00-5	1,1,2-Trichloroethane	230	U
79-01-6	Trichloroethene	230	U
96-18-4	1,2,3-Trichloropropane	230	U
95-63-6	1,2,4-Trimethylbenzene	230	U
108-67-8	1,3,5-Trimethylbenzene	230	U
75-01-4	Vinyl chloride	460	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) SO Lab Sample ID:A0J310185 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.35 / g Date Received: 10/31/00
Work Order: DN4KQ1AD Date Extracted:11/01/00
Dilution factor: 0.93 Date Analyzed: 11/09/00
Moisture %:7.1

QC Batch: 0315511

Client Sample Id: SO-AOC 3-1 (0'-2')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	120	U
136777-61-2	m-Xylene & p-Xylene	230	U

Received 12/4/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING

Lot #: A0K020282

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 29, 2000

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 11/01/00	Chain of Custody Number: 49218
Address: 3300 Town Point Dr. NW	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact	Lab Contact: Becky Strait	Analysis (Attach list if more space is needed)
Project Name: Thermo King	Carrier/Waybill Number		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	8260B	4-Day TAT	Special Instructions/ Conditions of Receipt
GW-AOC 1-1 (52'-56')	10/31/00	1522	X						3			✓	✓	Analyze according to Rhonda Quinn's instructions
GW-AOC 1-1 (59'-63')	10/31/00	1645	X						3			✓	✓	
EQB	11/01/00	0815	X						3			✓	✓	
SO-AOC 3-1 (29'-31')	11/01/00	1315			X	4						✓	✓	
SO-AOC 3-1 (38-40)	11/01/00	1400			X	4						✓	✓	
SO-Dupe	11/01/00	1350			X	4						✓	✓	
GW-AOC 3-1 (40'-44')	11/01/00	1335	X						3			✓	✓	ms/msd N/A

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other

QC Requirements (Specify)

		Date	Time
1. Relinquished By	[signature]	11/01/00	1430
2. Relinquished By			
3. Relinquished By			

		Date	Time
1. Received By	Anne Sanders	11-2-00	920 AM
2. Received By			
3. Received By			

Comments: ms/msd per Chris Krambis - RQ 11/2/00

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

14

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Lab Sample ID:A0K020282 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DN9FR1AD
Dilution factor: 1.06
Moisture %:2.8

Date Received: 11/02/00
Date Extracted:11/08/00
Date Analyzed: 11/08/00

QC Batch: 0315165

Client Sample Id: SO-AOC 3-1 (29'-31')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	11	U
71-43-2	Benzene	5.3	U
108-86-1	Bromobenzene	5.3	U
74-97-5	Bromochloromethane	5.3	U
75-27-4	Bromodichloromethane	5.3	U
75-25-2	Bromoform	5.3	U
74-83-9	Bromomethane	11	U
104-51-8	n-Butylbenzene	5.3	U
135-98-8	sec-Butylbenzene	5.3	U
98-06-6	tert-Butylbenzene	5.3	U
56-23-5	Carbon tetrachloride	5.3	U
108-90-7	Chlorobenzene	5.3	U
124-48-1	Chlorodibromomethane	5.3	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	5.3	U
74-87-3	Chloromethane	11	U
95-49-8	2-Chlorotoluene	5.3	U
106-43-4	4-Chlorotoluene	5.3	U
106-93-4	1,2-Dibromoethane	5.3	U
74-95-3	Dibromomethane	5.3	U
95-50-1	1,2-Dichlorobenzene	5.3	U
541-73-1	1,3-Dichlorobenzene	5.3	U
106-46-7	1,4-Dichlorobenzene	5.3	U
75-71-8	Dichlorodifluoromethane	11	U
75-34-3	1,1-Dichloroethane	5.3	U
107-06-2	1,2-Dichloroethane	5.3	U
156-59-2	cis-1,2-Dichloroethene	2.6	U
156-60-5	trans-1,2-Dichloroethene	2.6	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Lab Sample ID:A0K020282 004

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DN9FR1AD
Dilution factor: 1.06
Moisture %:2.8

Date Received: 11/02/00
Date Extracted:11/08/00
Date Analyzed: 11/08/00

QC Batch: 0315165

Client Sample Id: SO-AOC 3-1 (29'-31')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	5.3	U
78-87-5	1,2-Dichloropropane	5.3	U
142-28-9	1,3-Dichloropropane	5.3	U
594-20-7	2,2-Dichloropropane	5.3	U
563-58-6	1,1-Dichloropropene	5.3	U
123-91-1	1,4-Dioxane	260	U
100-41-4	Ethylbenzene	5.3	U
87-68-3	Hexachlorobutadiene	5.3	U
98-82-8	Isopropylbenzene	5.3	U
99-87-6	p-Isopropyltoluene	5.3	U
75-09-2	Methylene chloride	5.3	U
91-20-3	Naphthalene	5.3	U
103-65-1	n-Propylbenzene	5.3	U
100-42-5	Styrene	5.3	U
630-20-6	1,1,1,2-Tetrachloroethane	5.3	U
79-34-5	1,1,2,2-Tetrachloroethane	5.3	U
127-18-4	Tetrachloroethene	5.3	U
108-88-3	Toluene	5.3	U
87-61-6	1,2,3-Trichlorobenzene	5.3	U
120-82-1	1,2,4-Trichlorobenzene	5.3	U
71-55-6	1,1,1-Trichloroethane	5.3	U
79-00-5	1,1,2-Trichloroethane	5.3	U
79-01-6	Trichloroethene	5.3	U
75-69-4	Trichlorofluoromethane	11	U
96-18-4	1,2,3-Trichloropropane	5.3	U
95-63-6	1,2,4-Trimethylbenzene	5.3	U
108-67-8	1,3,5-Trimethylbenzene	5.3	U
75-01-4	Vinyl chloride	11	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0K020282 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 11/02/00
Work Order: DN9FR1AD Date Extracted:11/08/00
Dilution factor: 1.06 Date Analyzed: 11/08/00
Moisture %:2.8

QC Batch: 0315165

Client Sample Id: SO-AOC 3-1 (29'-31')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	5.3	U
95-47-6	o-Xylene	2.6	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0K020282 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 11/02/00
Work Order: DN9FX1AD Date Extracted:11/08/00
Dilution factor: 1.04 Date Analyzed: 11/08/00
Moisture %:2.9

QC Batch: 0315165

Client Sample Id: SO-AOC 3-1 (38-40)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	10	U
71-43-2	Benzene	5.2	U
108-86-1	Bromobenzene	5.2	U
74-97-5	Bromochloromethane	5.2	U
75-27-4	Bromodichloromethane	5.2	U
75-25-2	Bromoform	5.2	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.2	U
135-98-8	sec-Butylbenzene	5.2	U
98-06-6	tert-Butylbenzene	5.2	U
56-23-5	Carbon tetrachloride	5.2	U
108-90-7	Chlorobenzene	5.2	U
124-48-1	Chlorodibromomethane	5.2	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.2	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.2	U
106-43-4	4-Chlorotoluene	5.2	U
106-93-4	1,2-Dibromoethane	5.2	U
74-95-3	Dibromomethane	5.2	U
95-50-1	1,2-Dichlorobenzene	5.2	U
541-73-1	1,3-Dichlorobenzene	5.2	U
106-46-7	1,4-Dichlorobenzene	5.2	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.2	U
107-06-2	1,2-Dichloroethane	5.2	U
156-59-2	cis-1,2-Dichloroethene	2.6	U
156-60-5	trans-1,2-Dichloroethene	2.6	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0K020282 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 11/02/00
Work Order: DN9FX1AD Date Extracted:11/08/00
Dilution factor: 1.04 Date Analyzed: 11/08/00
Moisture %:2.9

QC Batch: 0315165

Client Sample Id: SO-AOC 3-1 (38-40)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	5.2	U
78-87-5	1,2-Dichloropropane	5.2	U
142-28-9	1,3-Dichloropropane	5.2	U
594-20-7	2,2-Dichloropropane	5.2	U
563-58-6	1,1-Dichloropropene	5.2	U
123-91-1	1,4-Dioxane	260	U
100-41-4	Ethylbenzene	5.2	U
87-68-3	Hexachlorobutadiene	5.2	U
98-82-8	Isopropylbenzene	5.2	U
99-87-6	p-Isopropyltoluene	5.2	U
75-09-2	Methylene chloride	5.2	U
91-20-3	Naphthalene	5.2	U
103-65-1	n-Propylbenzene	5.2	U
100-42-5	Styrene	5.2	U
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U
127-18-4	Tetrachloroethene	5.2	U
108-88-3	Toluene	5.2	U
87-61-6	1,2,3-Trichlorobenzene	5.2	U
120-82-1	1,2,4-Trichlorobenzene	5.2	U
71-55-6	1,1,1-Trichloroethane	5.2	U
79-00-5	1,1,2-Trichloroethane	5.2	U
79-01-6	Trichloroethene	5.2	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.2	U
95-63-6	1,2,4-Trimethylbenzene	5.2	U
108-67-8	1,3,5-Trimethylbenzene	5.2	U
75-01-4	Vinyl chloride	10	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0K020282 005

Sample WT/Vol: 5 / g
Work Order: DN9FX1AD
Dilution factor: 1.04
Moisture %:2.9

Date Received: 11/02/00
Date Extracted:11/08/00
Date Analyzed: 11/08/00

QC Batch: 0315165

Client Sample Id: SO-AOC 3-1 (38-40)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	5.2	U
95-47-6	o-Xylene	2.6	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0K020282 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g Date Received: 11/02/00
Work Order: DN9F11AD Date Extracted:11/08/00
Dilution factor: 1.16 Date Analyzed: 11/08/00
Moisture %:3.4

QC Batch: 0315165

Client Sample Id: SO-DUPE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
96-12-8	1,2-Dibromo-3-chloropropane	12	U
71-43-2	Benzene	5.8	U
108-86-1	Bromobenzene	5.8	U
74-97-5	Bromochloromethane	5.8	U
75-27-4	Bromodichloromethane	5.8	U
75-25-2	Bromoform	5.8	U
74-83-9	Bromomethane	12	U
104-51-8	n-Butylbenzene	5.8	U
135-98-8	sec-Butylbenzene	5.8	U
98-06-6	tert-Butylbenzene	5.8	U
56-23-5	Carbon tetrachloride	5.8	U
108-90-7	Chlorobenzene	5.8	U
124-48-1	Chlorodibromomethane	5.8	U
75-00-3	Chloroethane	12	U
67-66-3	Chloroform	5.8	U
74-87-3	Chloromethane	12	U
95-49-8	2-Chlorotoluene	5.8	U
106-43-4	4-Chlorotoluene	5.8	U
106-93-4	1,2-Dibromoethane	5.8	U
74-95-3	Dibromomethane	5.8	U
95-50-1	1,2-Dichlorobenzene	5.8	U
541-73-1	1,3-Dichlorobenzene	5.8	U
106-46-7	1,4-Dichlorobenzene	5.8	U
75-71-8	Dichlorodifluoromethane	12	U
75-34-3	1,1-Dichloroethane	5.8	U
107-06-2	1,2-Dichloroethane	5.8	U
156-59-2	cis-1,2-Dichloroethene	2.9	U
156-60-5	trans-1,2-Dichloroethene	2.9	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Lab Sample ID:A0K020282 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Work Order: DN9F11AD
Dilution factor: 1.16
Moisture %:3.4

Date Received: 11/02/00
Date Extracted:11/08/00
Date Analyzed: 11/08/00

QC Batch: 0315165

Client Sample Id: SO-DUPE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
75-35-4	1,1-Dichloroethene	5.8	U
78-87-5	1,2-Dichloropropane	5.8	U
142-28-9	1,3-Dichloropropane	5.8	U
594-20-7	2,2-Dichloropropane	5.8	U
563-58-6	1,1-Dichloropropene	5.8	U
123-91-1	1,4-Dioxane	290	U
100-41-4	Ethylbenzene	5.8	U
87-68-3	Hexachlorobutadiene	5.8	U
98-82-8	Isopropylbenzene	5.8	U
99-87-6	p-Isopropyltoluene	5.8	U
75-09-2	Methylene chloride	5.8	U
91-20-3	Naphthalene	5.8	U
103-65-1	n-Propylbenzene	5.8	U
100-42-5	Styrene	5.8	U
630-20-6	1,1,1,2-Tetrachloroethane	5.8	U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U
127-18-4	Tetrachloroethene	5.8	U
108-88-3	Toluene	5.8	U
87-61-6	1,2,3-Trichlorobenzene	5.8	U
120-82-1	1,2,4-Trichlorobenzene	5.8	U
71-55-6	1,1,1-Trichloroethane	5.8	U
79-00-5	1,1,2-Trichloroethane	5.8	U
79-01-6	Trichloroethene	5.8	U
75-69-4	Trichlorofluoromethane	12	U
96-18-4	1,2,3-Trichloropropane	5.8	U
95-63-6	1,2,4-Trimethylbenzene	5.8	U
108-67-8	1,3,5-Trimethylbenzene	5.8	U
75-01-4	Vinyl chloride	12	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Lab Sample ID:A0K020282 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / g
Date Received: 11/02/00
Work Order: DN9F11AD
Date Extracted:11/08/00
Dilution factor: 1.16
Date Analyzed: 11/08/00
Moisture %:3.4

QC Batch: 0315165

Client Sample Id: SO-DUPE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
136777-61-2	m-Xylene & p-Xylene	5.8	U
95-47-6	o-Xylene	2.9	U

Received 11/15/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0J210135

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 13, 2000

Chain of Custody Record

Quanterra

18

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/20/00	Chain of Custody Number: 48912
Address: 3200 TOWN POINT Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770)421-3516/(770)421-3486	Lab Number:	Page 2 of 2
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
Duplicate	10/19/00		✓						3				Analyze for Rhonda Quinn

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Erica McCray	10/20/00	1420	1. Received By: Anne Sanders	10-21-00	925
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
LAW	Rhonda Quinn	10/20/00	48911

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
3200 Town Point Dr. Suite 100	(770)421-3516 / (770)421-3486	(330)497-9396	Page 1 of 2

City	State	Zip Code	Site Contact	Lab Contact
Kennesaw	GA	30144		Becky Strait

Project Name	Carrier/Waybill Number
TK Louisville	

Contract/Purchase Order/Quote No.

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	Zn Ac/ NaOH	Special Instructions/ Conditions of Receipt
SD-AOC-9-1 (0-2)	10/19/00	1820			✓	4						Analyze for Rhonda Quinn
SD-AOC-9-1 (4-6)	10/19/00	1840			✓	4						
SD-AOC-9-1 (34-36)	10/19/00	1900			✓	4						
SD-AOC-9-2 (0-2)	10/20/00	1105			✓	4						
SD-AOC-9-2 (4-6)	10/20/00	1125			✓	4						
SD-AOC-9-2 (32-34)	10/20/00	1200			✓	4						
GW-AOC-8-2 (42-46)	10/19/00	1400	✓						3			
GW-AOC-8-2 (50-54)	10/19/00	1510	✓						3			
GW-AOC-8-2 (56-60)	10/19/00	1612	✓						3			
GW-AOC-9-2 (44-48)	10/20/00	1140	✓						3			
GW-AOC-9-2 (50-54)	10/20/00	1210	✓						3			
GW-AOC-9-2 (58-62)	10/20/00	1325	✓						3			

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Erica M. McCray	10/20/00	1420	1. Received By: Anne Sanders	10-21-00	925
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

17

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn		Date: 10/20/00	Chain of Custody Number: 48913
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: (770)421-3516 / (770)421-3486		Lab Number: (30)947-9396	Page ____ of ____
City: Kennesaw.	State: GA	Zip Code: 30141	Site Contact:	Lab Contact: Becky Strait
Project Name: TK Louisville	Carrier/Waybill Number:			
Contract/Purchase Order/Quote No.				

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260s	1-4 Dioxane	Special Instructions/ Conditions of Receipt
GW-AOC-9-1 (40-44)	10/19/00	1810	✓						3			✓	1	Analyze for Rhonda Quinn
GW-AOC-9-1 (50-54)	10/20/00	1420	✓						3			1	1	
GW-AOC-9-1 (58-62)	10/20/00	1445	✓						3			1	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Erica McCray	10/20/00	1850	1. Received By:	10/21/00	925
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 4.26 / g Date Received: 10/21/00
Work Order: DNKDC1AD Date Extracted:10/30/00
Dilution factor: 1.17 Date Analyzed: 10/30/00
Moisture %:15

QC Batch: 0305470

Client Sample Id: SO-AOC-9-1(0-2)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	5.8	U
108-86-1	Bromobenzene	5.8	U
74-97-5	Bromochloromethane	5.8	U
75-27-4	Bromodichloromethane	5.8	U
75-25-2	Bromoform	5.8	U
74-83-9	Bromomethane	12	U
104-51-8	n-Butylbenzene	5.8	U
135-98-8	sec-Butylbenzene	5.8	U
98-06-6	tert-Butylbenzene	5.8	U
56-23-5	Carbon tetrachloride	5.8	U
108-90-7	Chlorobenzene	5.8	U
124-48-1	Chlorodibromomethane	5.8	U
96-12-8	1,2-Dibromo-3-chloropropane	12	U
75-00-3	Chloroethane	12	U
67-66-3	Chloroform	5.8	U
74-87-3	Chloromethane	12	U
95-49-8	2-Chlorotoluene	5.8	U
106-43-4	4-Chlorotoluene	5.8	U
106-93-4	1,2-Dibromoethane	5.8	U
74-95-3	Dibromomethane	5.8	U
95-50-1	1,2-Dichlorobenzene	5.8	U
541-73-1	1,3-Dichlorobenzene	5.8	U
106-46-7	1,4-Dichlorobenzene	5.8	U
75-71-8	Dichlorodifluoromethane	12	U
75-34-3	1,1-Dichloroethane	5.8	U
107-06-2	1,2-Dichloroethane	5.8	U
75-35-4	1,1-Dichloroethene	5.8	U
156-59-2	cis-1,2-Dichloroethene	2.9	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 4.26 / g Date Received: 10/21/00
Work Order: DNKDC1AD Date Extracted:10/30/00
Dilution factor: 1.17 Date Analyzed: 10/30/00
Moisture %:15

QC Batch: 0305470

Client Sample Id: SO-AOC-9-1(0-2)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	2.9	U
78-87-5	1,2-Dichloropropane	5.8	U
142-28-9	1,3-Dichloropropane	5.8	U
594-20-7	2,2-Dichloropropane	5.8	U
563-58-6	1,1-Dichloropropene	5.8	U
123-91-1	1,4-Dioxane	290	U
100-41-4	Ethylbenzene	5.8	U
75-69-4	Trichlorofluoromethane	12	U
87-68-3	Hexachlorobutadiene	5.8	U
98-82-8	Isopropylbenzene	5.8	U
99-87-6	p-Isopropyltoluene	5.8	U
75-09-2	Methylene chloride	5.8	U
91-20-3	Naphthalene	5.8	U
103-65-1	n-Propylbenzene	5.8	U
100-42-5	Styrene	5.8	U
630-20-6	1,1,1,2-Tetrachloroethane	5.8	U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U
127-18-4	Tetrachloroethene	5.8	U
108-88-3	Toluene	5.8	U
87-61-6	1,2,3-Trichlorobenzene	5.8	U
120-82-1	1,2,4-Trichlorobenzene	5.8	U
71-55-6	1,1,1-Trichloroethane	5.8	U
79-00-5	1,1,2-Trichloroethane	5.8	U
79-01-6	Trichloroethene	5.8	U
96-18-4	1,2,3-Trichloropropane	5.8	U
95-63-6	1,2,4-Trimethylbenzene	5.8	U
108-67-8	1,3,5-Trimethylbenzene	5.8	U
75-01-4	Vinyl chloride	12	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Lab Sample ID:A0J210135 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 4.26 / g
Work Order: DNKDC1AD
Dilution factor: 1.17
Moisture %:15

Date Received: 10/21/00
Date Extracted:10/30/00
Date Analyzed: 10/30/00

QC Batch: 0305470

Client Sample Id: SO-AOC-9-1(0-2)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	2.9	U
136777-61-2	m-Xylene & p-Xylene	5.8	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID: A0J210135 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 3.77 / g Date Received: 10/21/00
Work Order: DNKD41AD Date Extracted: 10/30/00
Dilution factor: 1.33 Date Analyzed: 10/30/00
Moisture %: 17

QC Batch: 0305470

Client Sample Id: SO-AOC-9-1(4-6)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	6.6	U
108-86-1	Bromobenzene	6.6	U
74-97-5	Bromochloromethane	6.6	U
75-27-4	Bromodichloromethane	6.6	U
75-25-2	Bromoform	6.6	U
74-83-9	Bromomethane	13	U
104-51-8	n-Butylbenzene	6.6	U
135-98-8	sec-Butylbenzene	6.6	U
98-06-6	tert-Butylbenzene	6.6	U
56-23-5	Carbon tetrachloride	6.6	U
108-90-7	Chlorobenzene	6.6	U
124-48-1	Chlorodibromomethane	6.6	U
96-12-8	1,2-Dibromo-3-chloropropane	13	U
75-00-3	Chloroethane	13	U
67-66-3	Chloroform	6.6	U
74-87-3	Chloromethane	13	U
95-49-8	2-Chlorotoluene	6.6	U
106-43-4	4-Chlorotoluene	6.6	U
106-93-4	1,2-Dibromoethane	6.6	U
74-95-3	Dibromomethane	6.6	U
95-50-1	1,2-Dichlorobenzene	6.6	U
541-73-1	1,3-Dichlorobenzene	6.6	U
106-46-7	1,4-Dichlorobenzene	6.6	U
75-71-8	Dichlorodifluoromethane	13	U
75-34-3	1,1-Dichloroethane	6.6	U
107-06-2	1,2-Dichloroethane	6.6	U
75-35-4	1,1-Dichloroethene	6.6	U
156-59-2	cis-1,2-Dichloroethene	3.3	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Lab Sample ID:A0J210135 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 3.77 / g
Work Order: DNKD41AD
Dilution factor: 1.33
Moisture %:17

Date Received: 10/21/00
Date Extracted:10/30/00
Date Analyzed: 10/30/00

QC Batch: 0305470

Client Sample Id: SO-AOC-9-1(4-6)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	3.3	U
78-87-5	1,2-Dichloropropane	6.6	U
142-28-9	1,3-Dichloropropane	6.6	U
594-20-7	2,2-Dichloropropane	6.6	U
563-58-6	1,1-Dichloropropene	6.6	U
123-91-1	1,4-Dioxane	330	U
100-41-4	Ethylbenzene	6.6	U
75-69-4	Trichlorofluoromethane	13	U
87-68-3	Hexachlorobutadiene	6.6	U
98-82-8	Isopropylbenzene	6.6	U
99-87-6	p-Isopropyltoluene	6.6	U
75-09-2	Methylene chloride	6.6	U
91-20-3	Naphthalene	6.6	U
103-65-1	n-Propylbenzene	6.6	U
100-42-5	Styrene	6.6	U
630-20-6	1,1,1,2-Tetrachloroethane	6.6	U
79-34-5	1,1,2,2-Tetrachloroethane	6.6	U
127-18-4	Tetrachloroethene	6.6	U
108-88-3	Toluene	6.6	U
87-61-6	1,2,3-Trichlorobenzene	6.6	U
120-82-1	1,2,4-Trichlorobenzene	6.6	U
71-55-6	1,1,1-Trichloroethane	6.6	U
79-00-5	1,1,2-Trichloroethane	6.6	U
79-01-6	Trichloroethene	6.6	U
96-18-4	1,2,3-Trichloropropane	6.6	U
95-63-6	1,2,4-Trimethylbenzene	6.6	U
108-67-8	1,3,5-Trimethylbenzene	6.6	U
75-01-4	Vinyl chloride	13	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID: A0J210135 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 3.77 / g Date Received: 10/21/00
Work Order: DNKD41AD Date Extracted: 10/30/00
Dilution factor: 1.33 Date Analyzed: 10/30/00
Moisture %: 17

QC Batch: 0305470

Client Sample Id: SO-AOC-9-1(4-6)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	3.3	U
136777-61-2	m-Xylene & p-Xylene	6.6	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J210135 003

Sample WT/Vol: 5.18 / g
Work Order: DNKD91AD
Dilution factor: 0.96
Moisture %:8.8

Date Received: 10/21/00
Date Extracted:10/30/00
Date Analyzed: 10/30/00

QC Batch: 0305470

Client Sample Id: SO-AOC-9-1(34-36)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	4.8	U
108-86-1	Bromobenzene	4.8	U
74-97-5	Bromochloromethane	4.8	U
75-27-4	Bromodichloromethane	4.8	U
75-25-2	Bromoform	4.8	U
74-83-9	Bromomethane	9.6	U
104-51-8	n-Butylbenzene	4.8	U
135-98-8	sec-Butylbenzene	4.8	U
98-06-6	tert-Butylbenzene	4.8	U
56-23-5	Carbon tetrachloride	4.8	U
108-90-7	Chlorobenzene	4.8	U
124-48-1	Chlorodibromomethane	4.8	U
96-12-8	1,2-Dibromo-3-chloropropane	9.6	U
75-00-3	Chloroethane	9.6	U
67-66-3	Chloroform	4.8	U
74-87-3	Chloromethane	9.6	U
95-49-8	2-Chlorotoluene	4.8	U
106-43-4	4-Chlorotoluene	4.8	U
106-93-4	1,2-Dibromoethane	4.8	U
74-95-3	Dibromomethane	4.8	U
95-50-1	1,2-Dichlorobenzene	4.8	U
541-73-1	1,3-Dichlorobenzene	4.8	U
106-46-7	1,4-Dichlorobenzene	4.8	U
75-71-8	Dichlorodifluoromethane	9.6	U
75-34-3	1,1-Dichloroethane	4.8	U
107-06-2	1,2-Dichloroethane	4.8	U
75-35-4	1,1-Dichloroethene	4.8	U
156-59-2	cis-1,2-Dichloroethene	2.4	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.18 / g Date Received: 10/21/00
Work Order: DNKD91AD Date Extracted:10/30/00
Dilution factor: 0.96 Date Analyzed: 10/30/00
Moisture %:8.8

QC Batch: 0305470

Client Sample Id: SO-AOC-9-1(34-36)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	2.4	U
78-87-5	1,2-Dichloropropane	4.8	U
142-28-9	1,3-Dichloropropane	4.8	U
594-20-7	2,2-Dichloropropane	4.8	U
563-58-6	1,1-Dichloropropene	4.8	U
123-91-1	1,4-Dioxane	240	U
100-41-4	Ethylbenzene	4.8	U
75-69-4	Trichlorofluoromethane	9.6	U
87-68-3	Hexachlorobutadiene	4.8	U
98-82-8	Isopropylbenzene	4.8	U
99-87-6	p-Isopropyltoluene	4.8	U
75-09-2	Methylene chloride	4.8	U
91-20-3	Naphthalene	4.8	U
103-65-1	n-Propylbenzene	4.8	U
100-42-5	Styrene	4.8	U
630-20-6	1,1,1,2-Tetrachloroethane	4.8	U
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U
127-18-4	Tetrachloroethene	4.8	U
108-88-3	Toluene	4.8	U
87-61-6	1,2,3-Trichlorobenzene	4.8	U
120-82-1	1,2,4-Trichlorobenzene	4.8	U
71-55-6	1,1,1-Trichloroethane	4.8	U
79-00-5	1,1,2-Trichloroethane	4.8	U
79-01-6	Trichloroethene	4.8	U
96-18-4	1,2,3-Trichloropropane	4.8	U
95-63-6	1,2,4-Trimethylbenzene	4.8	U
108-67-8	1,3,5-Trimethylbenzene	4.8	U
75-01-4	Vinyl chloride	9.6	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.18 / g Date Received: 10/21/00
Work Order: DNKD91AD Date Extracted:10/30/00
Dilution factor: 0.96 Date Analyzed: 10/30/00
Moisture %:8.8

QC Batch: 0305470

Client Sample Id: SO-AOC-9-1(34-36)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	2.4	U
136777-61-2	m-Xylene & p-Xylene	4.8	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.5 / g Date Received: 10/21/00
Work Order: DNKEC1AD Date Extracted:10/30/00
Dilution factor: 0.91 Date Analyzed: 10/30/00
Moisture %:9.1

QC Batch: 0305470

Client Sample Id: SO-AOC-9-2(0-2)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	4.6	U
108-86-1	Bromobenzene	4.6	U
74-97-5	Bromochloromethane	4.6	U
75-27-4	Bromodichloromethane	4.6	U
75-25-2	Bromoform	4.6	U
74-83-9	Bromomethane	9.1	U
104-51-8	n-Butylbenzene	4.6	U
135-98-8	sec-Butylbenzene	4.6	U
98-06-6	tert-Butylbenzene	4.6	U
56-23-5	Carbon tetrachloride	4.6	U
108-90-7	Chlorobenzene	4.6	U
124-48-1	Chlorodibromomethane	4.6	U
96-12-8	1,2-Dibromo-3-chloropropane	9.1	U
75-00-3	Chloroethane	9.1	U
67-66-3	Chloroform	4.6	U
74-87-3	Chloromethane	9.1	U
95-49-8	2-Chlorotoluene	4.6	U
106-43-4	4-Chlorotoluene	4.6	U
106-93-4	1,2-Dibromoethane	4.6	U
74-95-3	Dibromomethane	4.6	U
95-50-1	1,2-Dichlorobenzene	4.6	U
541-73-1	1,3-Dichlorobenzene	4.6	U
106-46-7	1,4-Dichlorobenzene	4.6	U
75-71-8	Dichlorodifluoromethane	9.1	U
75-34-3	1,1-Dichloroethane	4.6	U
107-06-2	1,2-Dichloroethane	4.6	U
75-35-4	1,1-Dichloroethene	4.6	U
156-59-2	cis-1,2-Dichloroethene	2.3	U

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID: A0J210135 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5.5 / g Date Received: 10/21/00
Work Order: DNKEC1AD Date Extracted: 10/30/00
Dilution factor: 0.91 Date Analyzed: 10/30/00
Moisture %: 9.1

QC Batch: 0305470

Client Sample Id: SO-AOC-9-2(0-2)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	2.3	U
78-87-5	1,2-Dichloropropane	4.6	U
142-28-9	1,3-Dichloropropane	4.6	U
594-20-7	2,2-Dichloropropane	4.6	U
563-58-6	1,1-Dichloropropene	4.6	U
123-91-1	1,4-Dioxane	230	U
100-41-4	Ethylbenzene	4.6	U
75-69-4	Trichlorofluoromethane	9.1	U
87-68-3	Hexachlorobutadiene	4.6	U
98-82-8	Isopropylbenzene	4.6	U
99-87-6	p-Isopropyltoluene	4.6	U
75-09-2	Methylene chloride	4.6	U
91-20-3	Naphthalene	4.6	U
103-65-1	n-Propylbenzene	4.6	U
100-42-5	Styrene	4.6	U
630-20-6	1,1,1,2-Tetrachloroethane	4.6	U
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U
127-18-4	Tetrachloroethene	4.6	U
108-88-3	Toluene	4.6	U
87-61-6	1,2,3-Trichlorobenzene	4.6	U
120-82-1	1,2,4-Trichlorobenzene	4.6	U
71-55-6	1,1,1-Trichloroethane	4.6	U
79-00-5	1,1,2-Trichloroethane	4.6	U
79-01-6	Trichloroethene	4.6	U
96-18-4	1,2,3-Trichloropropane	4.6	U
95-63-6	1,2,4-Trimethylbenzene	4.6	U
108-67-8	1,3,5-Trimethylbenzene	4.6	U
75-01-4	Vinyl chloride	9.1	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J210135 004

Sample WT/Vol: 5.5 / g
Work Order: DNKEC1AD
Dilution factor: 0.91
Moisture %:9.1

Date Received: 10/21/00
Date Extracted:10/30/00
Date Analyzed: 10/30/00

QC Batch: 0305470

Client Sample Id: SO-AOC-9-2(0-2)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	2.3	U
136777-61-2	m-Xylene & p-Xylene	4.6	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 3.73 / g Date Received: 10/21/00
Work Order: DNKEE1AD Date Extracted:10/30/00
Dilution factor: 1.34 Date Analyzed: 10/30/00
Moisture %:14

QC Batch: 0305470

Client Sample Id: SO-AOC-9-2(4-6)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	6.7	U
108-86-1	Bromobenzene	6.7	U
74-97-5	Bromochloromethane	6.7	U
75-27-4	Bromodichloromethane	6.7	U
75-25-2	Bromoform	6.7	U
74-83-9	Bromomethane	13	U
104-51-8	n-Butylbenzene	6.7	U
135-98-8	sec-Butylbenzene	6.7	U
98-06-6	tert-Butylbenzene	6.7	U
56-23-5	Carbon tetrachloride	6.7	U
108-90-7	Chlorobenzene	6.7	U
124-48-1	Chlorodibromomethane	6.7	U
96-12-8	1,2-Dibromo-3-chloropropane	13	U
75-00-3	Chloroethane	13	U
67-66-3	Chloroform	6.7	U
74-87-3	Chloromethane	13	U
95-49-8	2-Chlorotoluene	6.7	U
106-43-4	4-Chlorotoluene	6.7	U
106-93-4	1,2-Dibromoethane	6.7	U
74-95-3	Dibromomethane	6.7	U
95-50-1	1,2-Dichlorobenzene	6.7	U
541-73-1	1,3-Dichlorobenzene	6.7	U
106-46-7	1,4-Dichlorobenzene	6.7	U
75-71-8	Dichlorodifluoromethane	13	U
75-34-3	1,1-Dichloroethane	6.7	U
107-06-2	1,2-Dichloroethane	6.7	U
75-35-4	1,1-Dichloroethene	6.7	U
156-59-2	cis-1,2-Dichloroethene	3.4	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 3.73 / g Date Received: 10/21/00
Work Order: DNKEE1AD Date Extracted:10/30/00
Dilution factor: 1.34 Date Analyzed: 10/30/00
Moisture %:14

QC Batch: 0305470

Client Sample Id: SO-AOC-9-2(4-6)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	3.4	U
78-87-5	1,2-Dichloropropane	6.7	U
142-28-9	1,3-Dichloropropane	6.7	U
594-20-7	2,2-Dichloropropane	6.7	U
563-58-6	1,1-Dichloropropene	6.7	U
123-91-1	1,4-Dioxane	340	U
100-41-4	Ethylbenzene	6.7	U
75-69-4	Trichlorofluoromethane	13	U
87-68-3	Hexachlorobutadiene	6.7	U
98-82-8	Isopropylbenzene	6.7	U
99-87-6	p-Isopropyltoluene	6.7	U
75-09-2	Methylene chloride	6.7	U
91-20-3	Naphthalene	6.7	U
103-65-1	n-Propylbenzene	6.7	U
100-42-5	Styrene	6.7	U
630-20-6	1,1,1,2-Tetrachloroethane	6.7	U
79-34-5	1,1,2,2-Tetrachloroethane	6.7	U
127-18-4	Tetrachloroethene	6.7	U
108-88-3	Toluene	6.7	U
87-61-6	1,2,3-Trichlorobenzene	6.7	U
120-82-1	1,2,4-Trichlorobenzene	6.7	U
71-55-6	1,1,1-Trichloroethane	6.7	U
79-00-5	1,1,2-Trichloroethane	6.7	U
79-01-6	Trichloroethene	6.7	U
96-18-4	1,2,3-Trichloropropane	6.7	U
95-63-6	1,2,4-Trimethylbenzene	6.7	U
108-67-8	1,3,5-Trimethylbenzene	6.7	U
75-01-4	Vinyl chloride	13	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 3.73 / g Date Received: 10/21/00
Work Order: DNKEE1AD Date Extracted:10/30/00
Dilution factor: 1.34 Date Analyzed: 10/30/00
Moisture %:14

QC Batch: 0305470

Client Sample Id: SO-AOC-9-2(4-6)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	3.4	U
136777-61-2	m-Xylene & p-Xylene	6.7	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 4.88 / g Date Received: 10/21/00
Work Order: DNKEN1AD Date Extracted:10/30/00
Dilution factor: 1.02 Date Analyzed: 10/30/00
Moisture %:17

QC Batch: 0305470

Client Sample Id: SO-AOC-9-2(32-34)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
71-43-2	Benzene	5.1	U
108-86-1	Bromobenzene	5.1	U
74-97-5	Bromochloromethane	5.1	U
75-27-4	Bromodichloromethane	5.1	U
75-25-2	Bromoform	5.1	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.1	U
135-98-8	sec-Butylbenzene	5.1	U
98-06-6	tert-Butylbenzene	5.1	U
56-23-5	Carbon tetrachloride	5.1	U
108-90-7	Chlorobenzene	5.1	U
124-48-1	Chlorodibromomethane	5.1	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.1	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.1	U
106-43-4	4-Chlorotoluene	5.1	U
106-93-4	1,2-Dibromoethane	5.1	U
74-95-3	Dibromomethane	5.1	U
95-50-1	1,2-Dichlorobenzene	5.1	U
541-73-1	1,3-Dichlorobenzene	5.1	U
106-46-7	1,4-Dichlorobenzene	5.1	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.1	U
107-06-2	1,2-Dichloroethane	5.1	U
75-35-4	1,1-Dichloroethene	5.1	U
156-59-2	cis-1,2-Dichloroethene	2.6	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 4.88 / g Date Received: 10/21/00
Work Order: DNKEN1AD Date Extracted:10/30/00
Dilution factor: 1.02 Date Analyzed: 10/30/00
Moisture %:17

QC Batch: 0305470

Client Sample Id: SO-AOC-9-2(32-34)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
156-60-5	trans-1,2-Dichloroethene	2.6	U
78-87-5	1,2-Dichloropropane	5.1	U
142-28-9	1,3-Dichloropropane	5.1	U
594-20-7	2,2-Dichloropropane	5.1	U
563-58-6	1,1-Dichloropropene	5.1	U
123-91-1	1,4-Dioxane	260	U
100-41-4	Ethylbenzene	5.1	U
75-69-4	Trichlorofluoromethane	10	U
87-68-3	Hexachlorobutadiene	5.1	U
98-82-8	Isopropylbenzene	5.1	U
99-87-6	p-Isopropyltoluene	5.1	U
75-09-2	Methylene chloride	5.1	U
91-20-3	Naphthalene	5.1	U
103-65-1	n-Propylbenzene	5.1	U
100-42-5	Styrene	5.1	U
630-20-6	1,1,1,2-Tetrachloroethane	5.1	U
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U
127-18-4	Tetrachloroethene	5.1	U
108-88-3	Toluene	5.1	U
87-61-6	1,2,3-Trichlorobenzene	5.1	U
120-82-1	1,2,4-Trichlorobenzene	5.1	U
71-55-6	1,1,1-Trichloroethane	5.1	U
79-00-5	1,1,2-Trichloroethane	5.1	U
79-01-6	Trichloroethene	5.1	U
96-18-4	1,2,3-Trichloropropane	5.1	U
95-63-6	1,2,4-Trimethylbenzene	5.1	U
108-67-8	1,3,5-Trimethylbenzene	5.1	U
75-01-4	Vinyl chloride	10	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SO Lab Sample ID:A0J210135 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 4.88 / g Date Received: 10/21/00
Work Order: DNKEN1AD Date Extracted:10/30/00
Dilution factor: 1.02 Date Analyzed: 10/30/00
Moisture %:17

QC Batch: 0305470

Client Sample Id: SO-AOC-9-2(32-34)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
95-47-6	o-Xylene	2.6	U
136777-61-2	m-Xylene & p-Xylene	5.1	U

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING - LOUISVILLE

Lot #: A0K280137

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca Strait

Rebecca L. Strait
Project Manager

January 2, 2001

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 11/27/00	Chain of Custody Number: 48917
Address: 3900 Town Point Dr.	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: Total Organic Carbon	pH	Special Instructions/ Conditions of Receipt
STB-1 (60.0'-60.5') SAND	11/27/00	1500			X	X						✓	✓	
STB-1 (72') CLAY	11/27/00	1545			X	X						✓	✓	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Christopher Kraft	11/27/00	1600	1. Received By:	11/28/00	920
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

LAW ENVIRONMENTAL INC

Client Sample ID: STB-1 (60.0'-60.5') SAND

General Chemistry

Lot-Sample #...: A0K280137-001 Work Order #...: DQFQW Matrix.....: SO
Date Sampled...: 11/27/00 15:00 Date Received..: 11/28/00
% Moisture.....: 19

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)	7.6		No Units	SW846 9045C	11/28/00	0333417
	Dilution Factor: 1					
Percent Solids	81.1	10.0	%	MCAWW 160.3 MOD	11/30-12/01/00	0339139
	Dilution Factor: 1					
Total Organic Carbon	ND	100	mg/kg	MSA WALKLEY-BLACK	12/20/00	0357337
	Dilution Factor: 1					

LAW ENVIRONMENTAL INC

Client Sample ID: STB-1 (72') CLAY

General Chemistry

Lot-Sample #...: A0K280137-002 Work Order #...: DQFQ0 Matrix.....: SO
Date Sampled...: 11/27/00 15:45 Date Received..: 11/28/00
% Moisture.....: 41

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)	8.8		No Units	SW846 9045C	11/28/00	0333417
	Dilution Factor: 1					
Percent Solids	58.9	10.0	%	MCAWW 160.3 MOD	11/30-12/01/00	0339139
	Dilution Factor: 1					
Total Organic Carbon	250	100	mg/kg	MSA WALKLEY-BLACK	12/20/00	0357337
	Dilution Factor: 1					

GROUND WATER

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
ENVIRONMENTAL STRATEGIES CORP.	COLLEEN BONNER	2/25/00	34885
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
#11111 FREEDOM DRIVE	(703)709-6500/(703)709-8505		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
RESTON / VA / 20190			
Project Name	**Carrier/Waybill Number**		
THERMO-KING INGERSOLL-RAND, LOUISVILLE, GA			
Contract/Purchase Order/Quote No.			
185754/1			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	$ZnAc/NaOH$	Analysis (Attach list if more space is needed): VOCs (8260)	Special Instructions/ Conditions of Receipt
MW-1	2/25/00	1245	X						3			X	
MW-2	2/25/00	1410	X						3			X	
MW-3	2/25/00	1230	X						3			X	
MW-4	2/25/00	1100	X						3			X	
MW-5	2/25/00	1015	X						3			X	
MW-6	2/25/00	1030	X						3			X	
MW-100	2/25/00	1200	X						3			X	
TRIP BLANK	2/25/00		X						2			X	
EQUIPMENT RINSATE (FB-1)	2/25/00	0600	X						3			X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☑ Archive For 1 Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
[redacted]	2/25/00	11:30			
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

[redacted]ample; CANARY - Returned to Client with Report; PINK - Field Copy

EXECUTIVE SUMMARY - Detection Highlights

B0B260134

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-1 02/25/00 12:45 001				
Chloroform	1.7	1.0	ug/L	SW846 8260B
Toluene	1.3	1.0	ug/L	SW846 8260B
MW-2 02/25/00 14:00 002				
Toluene	5.0	1.0	ug/L	SW846 8260B
Trichloroethene	180 E	1.0	ug/L	SW846 8260B
Trichloroethene	240	10	ug/L	SW846 8260B
MW-3 02/25/00 12:30 003				
Trichloroethene	2900	150	ug/L	SW846 8260B
MW-4 02/25/00 15:15 004				
Trichloroethene	16	1.0	ug/L	SW846 8260B
MW-5 02/25/00 10:15 005				
Trichloroethene	7400	400	ug/L	SW846 8260B
MW-6 02/25/00 10:30 006				
Trichloroethene	9.6	1.0	ug/L	SW846 8260B
MW-100 02/25/00 16:00 007				
Trichloroethene	14	1.0	ug/L	SW846 8260B

[redacted]

ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: B0B260134-001 Work Order #...: D92V3101 Matrix.....: WATER
Date Sampled...: 02/25/00 Date Received..: 02/26/00
Prep Date.....: 03/06/00 Analysis Date..: 03/06/00
Prep Batch #...: 0067285
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.14
Bromobenzene	ND	1.0	ug/L	0.20
Bromochloromethane	ND	1.0	ug/L	0.20
Bromodichloromethane	ND	1.0	ug/L	0.17
Bromoform	ND	1.0	ug/L	0.14
Bromomethane	ND	1.0	ug/L	0.14
n-Butylbenzene	ND	1.0	ug/L	0.15
sec-Butylbenzene	ND	1.0	ug/L	0.14
tert-Butylbenzene	ND	1.0	ug/L	0.19
Carbon tetrachloride	ND	1.0	ug/L	0.14
Chlorobenzene	ND	1.0	ug/L	0.18
Chlorodibromomethane	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.17
Chloroform	**1.7**	**1.0**	**ug/L**	**0.17**
Chloromethane	ND	1.0	ug/L	0.16
2-Chlorotoluene	ND	1.0	ug/L	0.20
4-Chlorotoluene	ND	1.0	ug/L	0.19
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.20
1,2-Dibromoethane	ND	1.0	ug/L	0.17
Dibromomethane	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.19
1,3-Dichlorobenzene	ND	1.0	ug/L	0.16
1,4-Dichlorobenzene	ND	1.0	ug/L	0.19
Dichlorodifluoromethane	ND	1.0	ug/L	0.17
1,1-Dichloroethane	ND	1.0	ug/L	0.16
1,2-Dichloroethane	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.17
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.18
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.18
1,2-Dichloropropane	ND	1.0	ug/L	0.17
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.15
Ethylbenzene	ND	1.0	ug/L	0.16
Hexachlorobutadiene	ND	1.0	ug/L	0.17
Isopropylbenzene	ND	1.0	ug/L	0.16
p-Isopropyltoluene	ND	1.0	ug/L	0.17

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ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: B0B260134-001 Work Order #...: D92V3101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methylene chloride	ND	2.0	ug/L	0.22
Naphthalene	ND	1.0	ug/L	0.18
n-Propylbenzene	ND	1.0	ug/L	0.16
Styrene	ND	1.0	ug/L	0.16
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.17
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.14
Toluene	**1.3**	**1.0**	**ug/L**	**0.19**
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.15
1,2,4-Trichlorobenzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.17
1,1,2-Trichloroethane	ND	1.0	ug/L	0.20
Trichloroethene	ND	1.0	ug/L	0.20
Trichlorofluoromethane	ND	1.0	ug/L	0.17
1,2,3-Trichloropropane	ND	1.0	ug/L	0.24
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.17
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.18
o-Xylene	ND	1.0	ug/L	0.14
m-Xylene & p-Xylene	ND	1.0	ug/L	0.36
1,4-Dioxane	ND	500	ug/L	8.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(80 - 120)
1,2-Dichloroethane-d4	95	(77 - 131)
Toluene-d8	110	(80 - 120)
Dibromofluoromethane	100	(80 - 125)

ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: B0B260134-002 Work Order #...: D92V6101 Matrix.....: WATER
Date Sampled...: 02/25/00 Date Received..: 02/26/00
Prep Date.....: 03/06/00 Analysis Date..: 03/06/00
Prep Batch #...: 0067285
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.14
Bromobenzene	ND	1.0	ug/L	0.20
Bromochloromethane	ND	1.0	ug/L	0.20
Bromodichloromethane	ND	1.0	ug/L	0.17
Bromoform	ND	1.0	ug/L	0.14
Bromomethane	ND	1.0	ug/L	0.14
n-Butylbenzene	ND	1.0	ug/L	0.15
sec-Butylbenzene	ND	1.0	ug/L	0.14
tert-Butylbenzene	ND	1.0	ug/L	0.19
Carbon tetrachloride	ND	1.0	ug/L	0.14
Chlorobenzene	ND	1.0	ug/L	0.18
Chlorodibromomethane	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.17
Chloroform	ND	1.0	ug/L	0.17
Chloromethane	ND	1.0	ug/L	0.16
2-Chlorotoluene	ND	1.0	ug/L	0.20
4-Chlorotoluene	ND	1.0	ug/L	0.19
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.20
1,2-Dibromoethane	ND	1.0	ug/L	0.17
Dibromomethane	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.19
1,3-Dichlorobenzene	ND	1.0	ug/L	0.16
1,4-Dichlorobenzene	ND	1.0	ug/L	0.19
Dichlorodifluoromethane	ND	1.0	ug/L	0.17
1,1-Dichloroethane	ND	1.0	ug/L	0.16
1,2-Dichloroethane	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.17
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.18
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.18
1,2-Dichloropropane	ND	1.0	ug/L	0.17
1,3-Dichloropropane	ND	1.0	ug/L	0.16
Hexachlorobutadiene	ND	1.0	ug/L	0.17
Isopropylbenzene	ND	1.0	ug/L	0.16
p-Isopropyltoluene	ND	1.0	ug/L	0.17
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.15
Ethylbenzene	ND	1.0	ug/L	0.16

(Continued on next page)

ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: B0B260134-002 Work Order #...: D92V6101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methylene chloride	ND	2.0	ug/L	0.22
Naphthalene	ND	1.0	ug/L	0.18
n-Propylbenzene	ND	1.0	ug/L	0.16
Styrene	ND	1.0	ug/L	0.16
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.17
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.14
Toluene	**5.0**	**1.0**	**ug/L**	**0.19**
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.15
1,2,4-Trichlorobenzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.17
1,1,2-Trichloroethane	ND	1.0	ug/L	0.20
Trichloroethene	**180 E**	**1.0**	**ug/L**	**0.20**
Trichlorofluoromethane	ND	1.0	ug/L	0.17
1,2,3-Trichloropropane	ND	1.0	ug/L	0.24
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.17
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.18
o-Xylene	ND	1.0	ug/L	0.14
m-Xylene & p-Xylene	ND	1.0	ug/L	0.36
1,4-Dioxane	ND	500	ug/L	8.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	104	(80 - 120)
1,2-Dichloroethane-d4	107	(77 - 131)
Toluene-d8	108	(80 - 120)
Dibromofluoromethane	105	(80 - 125)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: B0B260134-002	Work Order #...: D92V6201	Matrix.....: WATER	
Date Sampled...: 02/25/00	Date Received..: 02/26/00		
Prep Date.....: 03/06/00	Analysis Date..: 03/06/00		
Prep Batch #...: 0067285			
Dilution Factor: 10	Initial Wgt/Vol: 2.5 mL	Final Wgt/Vol..: 25 mL	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Trichloroethene	240	10	ug/L	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	100	(80 - 120)
1,2-Dichloroethane-d4	110	(77 - 131)
Toluene-d8	109	(80 - 120)
Dibromofluoromethane	106	(80 - 125)

[redacted]

Data File: /chem/tpa/msv/B3VOA5.i/mar06a.b/c5131.d

Date : 06-MAR-2009 17:20

Client ID:

Instrument: B3VOA5.i

Sample Info: D92V6201

Purge Volume: 25.0

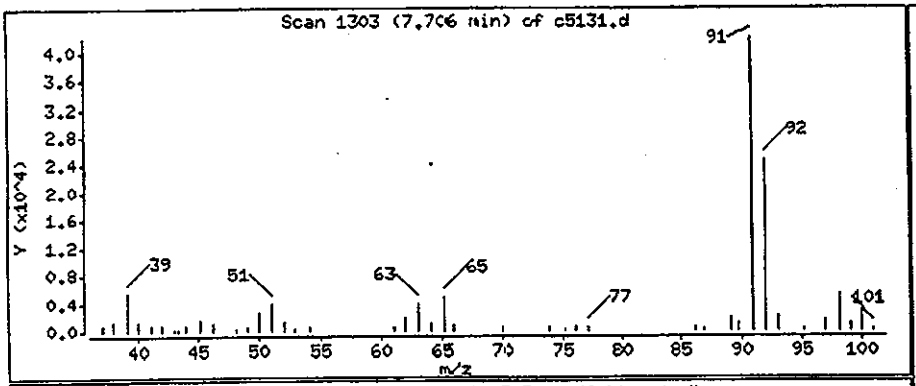
Operator: 1696

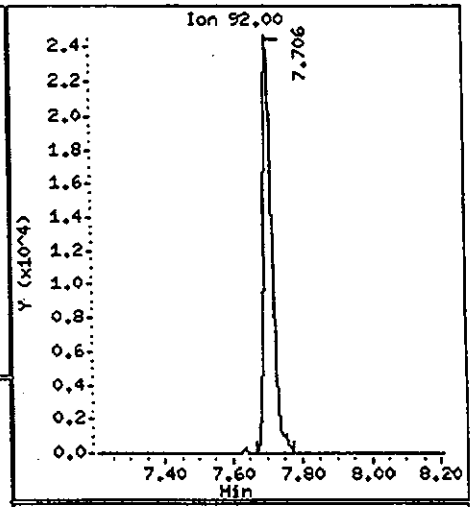
Column phase: DB-624

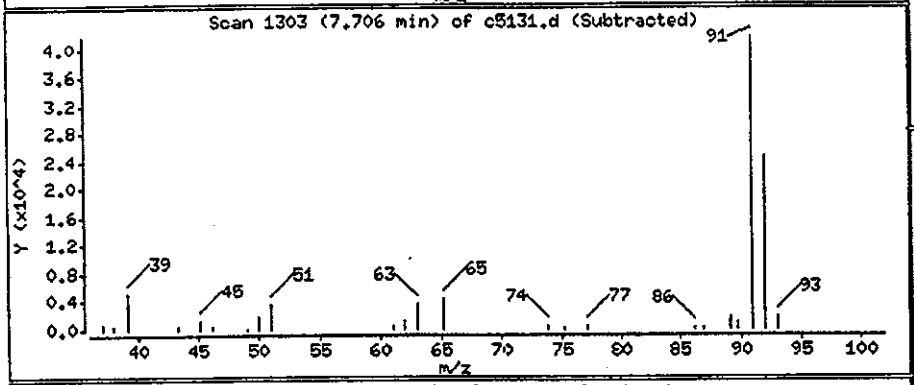
Column diameter: 0.18

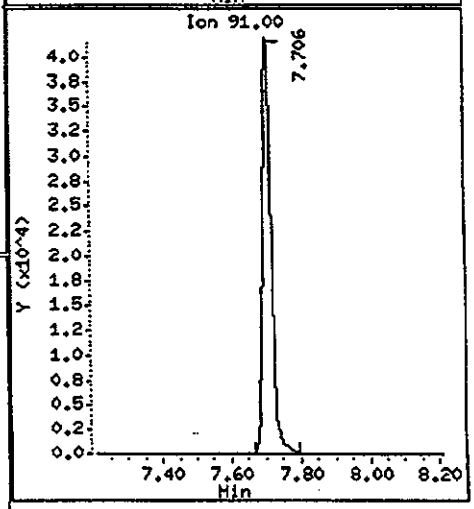
45 TOLUENE (CCC)

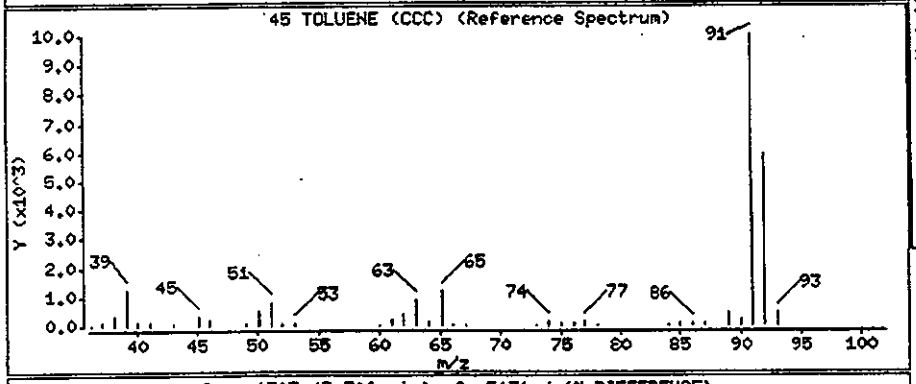
Concentration: 5.066 ug/L

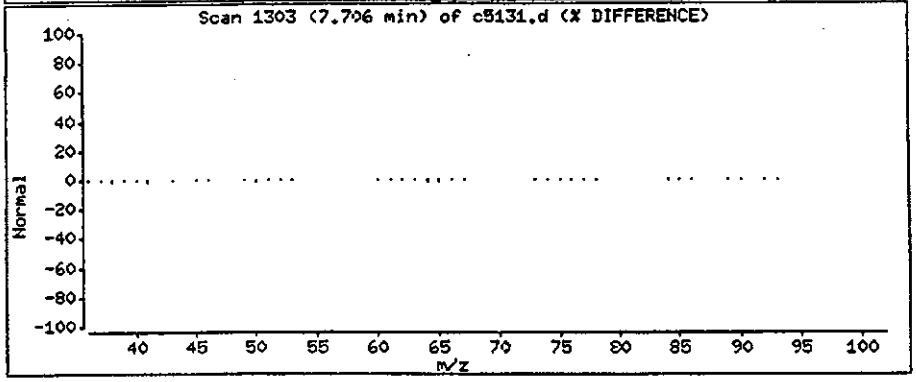












ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: B0B260134-003 Work Order #...: D92V8101 Matrix.....: WATER
Date Sampled...: 02/25/00 Date Received..: 02/26/00
Prep Date.....: 03/06/00 Analysis Date..: 03/06/00
Prep Batch #...: 0067285
Dilution Factor: 150 Initial Wgt/Vol: 0.167 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	150	ug/L	21
Bromobenzene	ND	150	ug/L	30
Bromomethane	ND	150	ug/L	21
n-Butylbenzene	ND	150	ug/L	22
sec-Butylbenzene	ND	150	ug/L	21
Bromochloromethane	ND	150	ug/L	30
Bromodichloromethane	ND	150	ug/L	26
Bromoform	ND	150	ug/L	21
tert-Butylbenzene	ND	150	ug/L	28
Carbon tetrachloride	ND	150	ug/L	21
Chlorobenzene	ND	150	ug/L	27
Chlorodibromomethane	ND	150	ug/L	22
Chloroethane	ND	150	ug/L	26
Chloroform	ND	150	ug/L	26
Chloromethane	ND	150	ug/L	24
2-Chlorotoluene	ND	150	ug/L	30
4-Chlorotoluene	ND	150	ug/L	28
1,2-Dibromo-3-chloro-propane	ND	300	ug/L	30
1,2-Dibromoethane	ND	150	ug/L	26
Dibromomethane	ND	150	ug/L	30
1,2-Dichlorobenzene	ND	150	ug/L	28
1,3-Dichlorobenzene	ND	150	ug/L	24
1,4-Dichlorobenzene	ND	150	ug/L	28
Dichlorodifluoromethane	ND	150	ug/L	26
1,1-Dichloroethane	ND	150	ug/L	24
1,2-Dichloroethane	ND	150	ug/L	28
1,1-Dichloroethene	ND	150	ug/L	26
cis-1,2-Dichloroethene	ND	150	ug/L	27
trans-1,2-Dichloroethene	ND	150	ug/L	27
1,2-Dichloropropane	ND	150	ug/L	26
1,3-Dichloropropane	ND	150	ug/L	24
2,2-Dichloropropane	ND	150	ug/L	20
1,1-Dichloropropene	ND	150	ug/L	22
Ethylbenzene	ND	150	ug/L	24
Hexachlorobutadiene	ND	150	ug/L	26
Isopropylbenzene	ND	150	ug/L	24
p-Isopropyltoluene	ND	150	ug/L	26

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ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: B0B260134-003 Work Order #...: D92V8101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methylene chloride	ND	300	ug/L	33
Naphthalene	ND	150	ug/L	27
n-Propylbenzene	ND	150	ug/L	24
Styrene	ND	150	ug/L	24
1,1,1,2-Tetrachloroethane	ND	150	ug/L	26
1,1,2,2-Tetrachloroethane	ND	150	ug/L	27
Tetrachloroethene	ND	150	ug/L	21
Toluene	ND	150	ug/L	28
1,2,3-Trichlorobenzene	ND	150	ug/L	22
1,2,4-Trichlorobenzene	ND	150	ug/L	22
1,1,1-Trichloroethane	ND	150	ug/L	26
1,1,2-Trichloroethane	ND	150	ug/L	30
Trichloroethene	**2900**	**150**	**ug/L**	**30**
Trichlorofluoromethane	ND	150	ug/L	26
1,2,3-Trichloropropane	ND	150	ug/L	36
1,2,4-Trimethylbenzene	ND	150	ug/L	26
1,3,5-Trimethylbenzene	ND	150	ug/L	26
Vinyl chloride	ND	150	ug/L	27
o-Xylene	ND	150	ug/L	21
m-Xylene & p-Xylene	ND	150	ug/L	54
1,4-Dioxane	ND	75000	ug/L	1300

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(80 - 120)
1,2-Dichloroethane-d4	107	(77 - 131)
Toluene-d8	106	(80 - 120)
Dibromofluoromethane	105	(80 - 125)

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ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: B0B260134-004 Work Order #...: D92VC101 Matrix.....: WATER
Date Sampled...: 02/25/00 Date Received..: 02/26/00
Prep Date.....: 03/06/00 Analysis Date..: 03/06/00
Prep Batch #...: 0067285
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.14
Bromobenzene	ND	1.0	ug/L	0.20
Bromochloromethane	ND	1.0	ug/L	0.20
Bromodichloromethane	ND	1.0	ug/L	0.17
Bromoform	ND	1.0	ug/L	0.14
Bromomethane	ND	1.0	ug/L	0.14
n-Butylbenzene	ND	1.0	ug/L	0.15
sec-Butylbenzene	ND	1.0	ug/L	0.14
tert-Butylbenzene	ND	1.0	ug/L	0.19
Carbon tetrachloride	ND	1.0	ug/L	0.14
Chlorobenzene	ND	1.0	ug/L	0.18
Chlorodibromomethane	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.17
Chloroform	ND	1.0	ug/L	0.17
Chloromethane	ND	1.0	ug/L	0.16
2-Chlorotoluene	ND	1.0	ug/L	0.20
4-Chlorotoluene	ND	1.0	ug/L	0.19
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.20
1,2-Dibromoethane	ND	1.0	ug/L	0.17
Dibromomethane	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.19
1,3-Dichlorobenzene	ND	1.0	ug/L	0.16
1,4-Dichlorobenzene	ND	1.0	ug/L	0.19
Dichlorodifluoromethane	ND	1.0	ug/L	0.17
1,1-Dichloroethane	ND	1.0	ug/L	0.16
1,2-Dichloroethane	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.17
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.18
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.18
1,2-Dichloropropane	ND	1.0	ug/L	0.17
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.15
Ethylbenzene	ND	1.0	ug/L	0.16
Hexachlorobutadiene	ND	1.0	ug/L	0.17
Isopropylbenzene	ND	1.0	ug/L	0.16
p-Isopropyltoluene	ND	1.0	ug/L	0.17

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ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: B0B260134-004 Work Order #...: D92VC101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methylene chloride	ND	2.0	ug/L	0.22
Naphthalene	ND	1.0	ug/L	0.18
n-Propylbenzene	ND	1.0	ug/L	0.16
Styrene	ND	1.0	ug/L	0.16
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.17
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.14
Toluene	ND	1.0	ug/L	0.19
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.15
1,2,4-Trichlorobenzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.17
1,1,2-Trichloroethane	ND	1.0	ug/L	0.20
Trichloroethene	**16**	**1.0**	**ug/L**	**0.20**
Trichlorofluoromethane	ND	1.0	ug/L	0.17
1,2,3-Trichloropropane	ND	1.0	ug/L	0.24
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.17
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.18
o-Xylene	ND	1.0	ug/L	0.14
m-Xylene & p-Xylene	ND	1.0	ug/L	0.36
1,4-Dioxane	ND	500	ug/L	8.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(80 - 120)
1,2-Dichloroethane-d4	107	(77 - 131)
Toluene-d8	106	(80 - 120)
Dibromofluoromethane	106	(80 - 125)

ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: B0B260134-005	**Work Order #...:** D92VE101	**Matrix.....:** WATER	
Date Sampled...: 02/25/00	**Date Received..:** 02/26/00		
Prep Date.....: 03/06/00	**Analysis Date..:** 03/06/00		
Prep Batch #...: 0067285			
Dilution Factor: 400	**Initial Wgt/Vol:** 0.0625 m	**Final Wgt/Vol..:** 25 mL	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	400	ug/L	56
Bromobenzene	ND	400	ug/L	80
Bromochloromethane	ND	400	ug/L	80
Bromodichloromethane	ND	400	ug/L	68
Bromoform	ND	400	ug/L	56
Bromomethane	ND	400	ug/L	56
n-Butylbenzene	ND	400	ug/L	60
sec-Butylbenzene	ND	400	ug/L	56
tert-Butylbenzene	ND	400	ug/L	76
Carbon tetrachloride	ND	400	ug/L	56
Chlorobenzene	ND	400	ug/L	72
Chlorodibromomethane	ND	400	ug/L	60
Chloroethane	ND	400	ug/L	68
Chloroform	ND	400	ug/L	68
Chloromethane	ND	400	ug/L	64
2-Chlorotoluene	ND	400	ug/L	80
4-Chlorotoluene	ND	400	ug/L	76
1,2-Dibromo-3-chloro-propane	ND	800	ug/L	80
1,2-Dibromoethane	ND	400	ug/L	68
Dibromomethane	ND	400	ug/L	80
1,2-Dichlorobenzene	ND	400	ug/L	76
1,3-Dichlorobenzene	ND	400	ug/L	64
1,4-Dichlorobenzene	ND	400	ug/L	76
Dichlorodifluoromethane	ND	400	ug/L	68
1,1-Dichloroethane	ND	400	ug/L	64
1,2-Dichloroethane	ND	400	ug/L	76
1,1-Dichloroethene	ND	400	ug/L	68
cis-1,2-Dichloroethene	ND	400	ug/L	72
trans-1,2-Dichloroethene	ND	400	ug/L	72
1,2-Dichloropropane	ND	400	ug/L	68
1,3-Dichloropropane	ND	400	ug/L	64
2,2-Dichloropropane	ND	400	ug/L	52
1,1-Dichloropropene	ND	400	ug/L	60
Ethylbenzene	ND	400	ug/L	64
Hexachlorobutadiene	ND	400	ug/L	68
Isopropylbenzene	ND	400	ug/L	64
p-Isopropyltoluene	ND	400	ug/L	68

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ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: B0B260134-005 Work Order #...: D92VE101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methylene chloride	ND	800	ug/L	88
Naphthalene	ND	400	ug/L	72
n-Propylbenzene	ND	400	ug/L	64
Styrene	ND	400	ug/L	64
1,1,1,2-Tetrachloroethane	ND	400	ug/L	68
1,1,2,2-Tetrachloroethane	ND	400	ug/L	72
Tetrachloroethene	ND	400	ug/L	56
Toluene	ND	400	ug/L	76
1,2,3-Trichlorobenzene	ND	400	ug/L	60
1,2,4-Trichlorobenzene	ND	400	ug/L	60
1,1,1-Trichloroethane	ND	400	ug/L	68
1,1,2-Trichloroethane	ND	400	ug/L	80
Trichloroethene	**7400**	**400**	**ug/L**	**80**
Trichlorofluoromethane	ND	400	ug/L	68
1,2,3-Trichloropropane	ND	400	ug/L	96
1,2,4-Trimethylbenzene	ND	400	ug/L	68
1,3,5-Trimethylbenzene	ND	400	ug/L	68
Vinyl chloride	ND	400	ug/L	72
o-Xylene	ND	400	ug/L	56
m-Xylene & p-Xylene	ND	400	ug/L	140
1,4-Dioxane	ND	200000	ug/L	3400

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	103	(80 - 120)
1,2-Dichloroethane-d4	108	(77 - 131)
Toluene-d8	109	(80 - 120)
Dibromofluoromethane	107	(80 - 125)

ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-6

GC/MS Volatiles

Lot-Sample #...: B0B260134-006 Work Order #...: D92VG101 Matrix.....: WATER
Date Sampled...: 02/25/00 Date Received..: 02/26/00
Prep Date.....: 03/06/00 Analysis Date..: 03/06/00
Prep Batch #...: 0067285
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.14
Bromobenzene	ND	1.0	ug/L	0.20
Bromochloromethane	ND	1.0	ug/L	0.20
Bromodichloromethane	ND	1.0	ug/L	0.17
Bromoform	ND	1.0	ug/L	0.14
Bromomethane	ND	1.0	ug/L	0.14
n-Butylbenzene	ND	1.0	ug/L	0.15
sec-Butylbenzene	ND	1.0	ug/L	0.14
tert-Butylbenzene	ND	1.0	ug/L	0.19
Carbon tetrachloride	ND	1.0	ug/L	0.14
Chlorobenzene	ND	1.0	ug/L	0.18
Chlorodibromomethane	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.17
Chloroform	ND	1.0	ug/L	0.17
Chloromethane	ND	1.0	ug/L	0.16
2-Chlorotoluene	ND	1.0	ug/L	0.20
4-Chlorotoluene	ND	1.0	ug/L	0.19
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.20
1,2-Dibromoethane	ND	1.0	ug/L	0.17
Dibromomethane	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.19
1,3-Dichlorobenzene	ND	1.0	ug/L	0.16
1,4-Dichlorobenzene	ND	1.0	ug/L	0.19
Dichlorodifluoromethane	ND	1.0	ug/L	0.17
1,1-Dichloroethane	ND	1.0	ug/L	0.16
1,2-Dichloroethane	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.17
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.18
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.18
1,2-Dichloropropane	ND	1.0	ug/L	0.17
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.15
Ethylbenzene	ND	1.0	ug/L	0.16
Hexachlorobutadiene	ND	1.0	ug/L	0.17
Isopropylbenzene	ND	1.0	ug/L	0.16
p-Isopropyltoluene	ND	1.0	ug/L	0.17

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ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-6

GC/MS Volatiles

Lot-Sample #...: B0B260134-006 Work Order #...: D92VG101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methylene chloride	ND	2.0	ug/L	0.22
Naphthalene	ND	1.0	ug/L	0.18
n-Propylbenzene	ND	1.0	ug/L	0.16
Styrene	ND	1.0	ug/L	0.16
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.17
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.14
Toluene	ND	1.0	ug/L	0.19
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.15
1,2,4-Trichlorobenzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.17
1,1,2-Trichloroethane	ND	1.0	ug/L	0.20
Trichloroethene	**9.6**	**1.0**	**ug/L**	**0.20**
Trichlorofluoromethane	ND	1.0	ug/L	0.17
1,2,3-Trichloropropane	ND	1.0	ug/L	0.24
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.17
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.18
o-Xylene	ND	1.0	ug/L	0.14
m-Xylene & p-Xylene	ND	1.0	ug/L	0.36
1,4-Dioxane	ND	500	ug/L	8.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(80 - 120)
1,2-Dichloroethane-d4	108	(77 - 131)
Toluene-d8	108	(80 - 120)
Dibromofluoromethane	106	(80 - 125)

ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-100

GC/MS Volatiles

Lot-Sample #...: B0B260134-007 Work Order #...: D92VH101 Matrix.....: WATER
Date Sampled...: 02/25/00 Date Received..: 02/26/00
Prep Date.....: 03/06/00 Analysis Date..: 03/06/00
Prep Batch #...: 0067285
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.14
Bromobenzene	ND	1.0	ug/L	0.20
Bromochloromethane	ND	1.0	ug/L	0.20
Bromodichloromethane	ND	1.0	ug/L	0.17
Bromoform	ND	1.0	ug/L	0.14
Bromomethane	ND	1.0	ug/L	0.14
n-Butylbenzene	ND	1.0	ug/L	0.15
sec-Butylbenzene	ND	1.0	ug/L	0.14
tert-Butylbenzene	ND	1.0	ug/L	0.19
Carbon tetrachloride	ND	1.0	ug/L	0.14
Chlorobenzene	ND	1.0	ug/L	0.18
Chlorodibromomethane	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.17
Chloroform	ND	1.0	ug/L	0.17
Chloromethane	ND	1.0	ug/L	0.16
2-Chlorotoluene	ND	1.0	ug/L	0.20
4-Chlorotoluene	ND	1.0	ug/L	0.19
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.20
1,2-Dibromoethane	ND	1.0	ug/L	0.17
Dibromomethane	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.19
1,3-Dichlorobenzene	ND	1.0	ug/L	0.16
1,4-Dichlorobenzene	ND	1.0	ug/L	0.19
Dichlorodifluoromethane	ND	1.0	ug/L	0.17
1,1-Dichloroethane	ND	1.0	ug/L	0.16
1,2-Dichloroethane	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.17
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.18
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.18
1,2-Dichloropropane	ND	1.0	ug/L	0.17
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.15
Ethylbenzene	ND	1.0	ug/L	0.16
Hexachlorobutadiene	ND	1.0	ug/L	0.17
Isopropylbenzene	ND	1.0	ug/L	0.16
p-Isopropyltoluene	ND	1.0	ug/L	0.17

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ENVIRONMENTAL STRATEGIES

Client Sample ID: MW-100

GC/MS Volatiles

Lot-Sample #...: B0B260134-007 Work Order #...: D92VH101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methylene chloride	ND	2.0	ug/L	0.22
Naphthalene	ND	1.0	ug/L	0.18
n-Propylbenzene	ND	1.0	ug/L	0.16
Styrene	ND	1.0	ug/L	0.16
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.17
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.14
Toluene	ND	1.0	ug/L	0.19
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.15
1,2,4-Trichlorobenzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.17
1,1,2-Trichloroethane	ND	1.0	ug/L	0.20
Trichloroethene	**14**	**1.0**	**ug/L**	**0.20**
Trichlorofluoromethane	ND	1.0	ug/L	0.17
1,2,3-Trichloropropane	ND	1.0	ug/L	0.24
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.17
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.18
o-Xylene	ND	1.0	ug/L	0.14
m-Xylene & p-Xylene	ND	1.0	ug/L	0.36
1,4-Dioxane	ND	500	ug/L	8.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(80 - 120)
1,2-Dichloroethane-d4	108	(77 - 131)
Toluene-d8	108	(80 - 120)
Dibromofluoromethane	107	(80 - 125)

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ENVIRONMENTAL STRATEGIES

Client Sample ID: EQUIPMENT BLANK EB-1

GC/MS Volatiles

Lot-Sample #...: B0B260134-009 Work Order #...: D92VL101 Matrix.....: WATER
Date Sampled...: 02/25/00 Date Received..: 02/26/00
Prep Date.....: 03/06/00 Analysis Date..: 03/06/00
Prep Batch #...: 0067285
Dilution Factor: 1 Initial Wgt/Vol: 25 mL Final Wgt/Vol..: 25 mL
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.14
Bromobenzene	ND	1.0	ug/L	0.20
Bromochloromethane	ND	1.0	ug/L	0.20
Bromodichloromethane	ND	1.0	ug/L	0.17
Bromoform	ND	1.0	ug/L	0.14
Bromomethane	ND	1.0	ug/L	0.14
n-Butylbenzene	ND	1.0	ug/L	0.15
sec-Butylbenzene	ND	1.0	ug/L	0.14
tert-Butylbenzene	ND	1.0	ug/L	0.19
Carbon tetrachloride	ND	1.0	ug/L	0.14
Chlorobenzene	ND	1.0	ug/L	0.18
Chlorodibromomethane	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.17
Chloroform	ND	1.0	ug/L	0.17
Chloromethane	ND	1.0	ug/L	0.16
2-Chlorotoluene	ND	1.0	ug/L	0.20
4-Chlorotoluene	ND	1.0	ug/L	0.19
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.20
1,2-Dibromoethane	ND	1.0	ug/L	0.17
Dibromomethane	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.19
1,3-Dichlorobenzene	ND	1.0	ug/L	0.16
1,4-Dichlorobenzene	ND	1.0	ug/L	0.19
Dichlorodifluoromethane	ND	1.0	ug/L	0.17
1,1-Dichloroethane	ND	1.0	ug/L	0.16
1,2-Dichloroethane	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.17
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.18
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.18
1,2-Dichloropropane	ND	1.0	ug/L	0.17
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.15
Ethylbenzene	ND	1.0	ug/L	0.16
Hexachlorobutadiene	ND	1.0	ug/L	0.17
Isopropylbenzene	ND	1.0	ug/L	0.16
p-Isopropyltoluene	ND	1.0	ug/L	0.17

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ENVIRONMENTAL STRATEGIES

Client Sample ID: EQUIPMENT BLANK EB-1

GC/MS Volatiles

Lot-Sample #...: B0B260134-009 Work Order #...: D92VL101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methylene chloride	ND	2.0	ug/L	0.22
Naphthalene	ND	1.0	ug/L	0.18
n-Propylbenzene	ND	1.0	ug/L	0.16
Styrene	ND	1.0	ug/L	0.16
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.17
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.14
Toluene	ND	1.0	ug/L	0.19
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.15
1,2,4-Trichlorobenzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.17
1,1,2-Trichloroethane	ND	1.0	ug/L	0.20
Trichloroethene	ND	1.0	ug/L	0.20
Trichlorofluoromethane	ND	1.0	ug/L	0.17
1,2,3-Trichloropropane	ND	1.0	ug/L	0.24
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.17
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.18
o-Xylene	ND	1.0	ug/L	0.14
m-Xylene & p-Xylene	ND	1.0	ug/L	0.36
1,4-Dioxane	ND	500	ug/L	8.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	102	(80 - 120)
1,2-Dichloroethane-d4	111	(77 - 131)
Toluene-d8	107	(80 - 120)
Dibromofluoromethane	106	(80 - 125)

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: B0B260134 Work Order #...: D9C35101 Matrix.....: WATER
MB Lot-Sample #: B0C070000-285

Prep Date.....: 03/06/00 Final Wgt/Vol..: 25 mL
Analysis Date..: 03/06/00 Prep Batch #...: 0067285
Dilution Factor: 1 Initial Wgt/Vol: 25 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	2.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: B0B260134 Work Order #...: D9C35101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	500	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(80 - 120)
1,2-Dichloroethane-d4	105	(77 - 131)
Toluene-d8	107	(80 - 120)
Dibromofluoromethane	105	(80 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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ENVIRONMENTAL STRATEGIES

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: B0B260134-008	**Work Order #...:** D92VJ101	**Matrix.....:** WATER	
Date Sampled...: 02/25/00	**Date Received..:** 02/26/00		
Prep Date.....: 03/06/00	**Analysis Date..:** 03/06/00		
Prep Batch #...: 0067285			
Dilution Factor: 1	**Initial Wgt/Vol:** 25 mL	**Final Wgt/Vol..:** 25 mL	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.14
Bromobenzene	ND	1.0	ug/L	0.20
Bromochloromethane	ND	1.0	ug/L	0.20
Bromodichloromethane	ND	1.0	ug/L	0.17
Bromoform	ND	1.0	ug/L	0.14
Bromomethane	ND	1.0	ug/L	0.14
n-Butylbenzene	ND	1.0	ug/L	0.15
sec-Butylbenzene	ND	1.0	ug/L	0.14
tert-Butylbenzene	ND	1.0	ug/L	0.19
Carbon tetrachloride	ND	1.0	ug/L	0.14
Chlorobenzene	ND	1.0	ug/L	0.18
Chlorodibromomethane	ND	1.0	ug/L	0.15
Chloroethane	ND	1.0	ug/L	0.17
Chloroform	ND	1.0	ug/L	0.17
Chloromethane	ND	1.0	ug/L	0.16
2-Chlorotoluene	ND	1.0	ug/L	0.20
4-Chlorotoluene	ND	1.0	ug/L	0.19
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	0.20
1,2-Dibromoethane	ND	1.0	ug/L	0.17
Dibromomethane	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.19
1,3-Dichlorobenzene	ND	1.0	ug/L	0.16
1,4-Dichlorobenzene	ND	1.0	ug/L	0.19
Dichlorodifluoromethane	ND	1.0	ug/L	0.17
1,1-Dichloroethane	ND	1.0	ug/L	0.16
1,2-Dichloroethane	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.17
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.18
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.18
1,2-Dichloropropane	ND	1.0	ug/L	0.17
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.15
Ethylbenzene	ND	1.0	ug/L	0.16
Hexachlorobutadiene	ND	1.0	ug/L	0.17
Isopropylbenzene	ND	1.0	ug/L	0.16
p-Isopropyltoluene	ND	1.0	ug/L	0.17

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ENVIRONMENTAL STRATEGIES

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: B0B260134-008 Work Order #...: D92VJ101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Methylene chloride	ND	2.0	ug/L	0.22
Naphthalene	ND	1.0	ug/L	0.18
n-Propylbenzene	ND	1.0	ug/L	0.16
Styrene	ND	1.0	ug/L	0.16
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.17
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.14
Toluene	ND	1.0	ug/L	0.19
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.15
1,2,4-Trichlorobenzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.17
1,1,2-Trichloroethane	ND	1.0	ug/L	0.20
Trichloroethene	ND	1.0	ug/L	0.20
Trichlorofluoromethane	ND	1.0	ug/L	0.17
1,2,3-Trichloropropane	ND	1.0	ug/L	0.24
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.17
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.17
Vinyl chloride	ND	1.0	ug/L	0.18
o-Xylene	ND	1.0	ug/L	0.14
m-Xylene & p-Xylene	ND	1.0	ug/L	0.36
1,4-Dioxane	ND	500	ug/L	8.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	102	(80 - 120)
1,2-Dichloroethane-d4	110	(77 - 131)
Toluene-d8	108	(80 - 120)
Dibromofluoromethane	106	(80 - 125)

Received 10/11/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

Read for DQE 10/11/00 RS

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0I270200

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca Strait
Rebecca L. Strait
Project Manager

October 6, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: TK LAW Engineering	Project Manager: Rhonda Quinn	Date: 9-26-00	Chain of Custody Number: 49373
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3516	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260	1,4 Dioxane	Trip Blank	Special Instructions/ Conditions of Receipt
GW-E-1 (34ft)	9/25/00	1725	3						✓			✓	✓		Analyses per Rhonda Quinn
GW-E-1 (48ft)	9/26/00	0945	3						✓			✓	✓		
GW-E-2 (55ft)	9/26/00	1150	3						✓			✓	✓		
Trip Blank	9/25/00	1725	1						✓			✓	✓		

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☑ 14 Days ☑ 21 Days ☐ Other ____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	9/26/00	1222	1. Received By: Anne Sanders	9-27-00	1940
2. Relinquished By:	Date	Time	2. Received By:	Date	Time
3. Relinquished By:	Date	Time	3. Received By:	Date	Time

Comments:

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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North Canton

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0I270200 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/27/00
Work Order: DL4M6101 Date Extracted: 10/02/00
Dilution factor: 1 Date Analyzed: 10/02/00
Moisture %:

QC Batch: 0276437

Client Sample Id: GW-E-1 (34FT)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

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FORM I

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0I270200 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/27/00
Work Order: DL4M6101 Date Extracted: 10/02/00
Dilution factor: 1 Date Analyzed: 10/02/00
Moisture %:

QC Batch: 0276437

Client Sample Id: GW-E-1 (34FT)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0I270200 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/27/00
Work Order: DL4M6101 Date Extracted: 10/02/00
Dilution factor: 1 Date Analyzed: 10/02/00
Moisture %:

QC Batch: 0276437

Client Sample Id: GW-E-1 (34FT)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID: A0I270200 002

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL
Work Order: DL4MD101
Dilution factor: 1
Moisture %:

Date Received: 09/27/00
Date Extracted: 10/02/00
Date Analyzed: 10/02/00

QC Batch: 0276437

Client Sample Id: GW-E-1 (48FT)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0I270200 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL
Work Order: DL4MD101
Dilution factor: 1
Moisture %:

Date Received: 09/27/00
Date Extracted: 10/02/00
Date Analyzed: 10/02/00

QC Batch: 0276437

Client Sample Id: GW-E-1 (48FT)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0I270200 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/27/00
Work Order: DL4MD101 Date Extracted: 10/02/00
Dilution factor: 1 Date Analyzed: 10/02/00
Moisture %:

QC Batch: 0276437

Client Sample Id: GW-E-1 (48FT)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID: A0I270200 003

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL
Work Order: DL4ML101
Dilution factor: 1
Moisture %:

Date Received: 09/27/00
Date Extracted: 10/02/00
Date Analyzed: 10/02/00

QC Batch: 0276437

Client Sample Id: GW-E-2 (55FT)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID: A0I270200 003

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL
Work Order: DL4ML101
Dilution factor: 1
Moisture %:

Date Received: 09/27/00
Date Extracted: 10/02/00
Date Analyzed: 10/02/00

QC Batch: 0276437

Client Sample Id: GW-E-2 (55FT)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	7.7	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0I270200 003

Sample WT/Vol: 1 / mL
Work Order: DL4ML101
Dilution factor: 1
Moisture %:

Date Received: 09/27/00
Date Extracted:10/02/00
Date Analyzed: 10/02/00

QC Batch: 0276437

Client Sample Id: GW-E-2 (55FT)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0I270200 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/27/00
Work Order: DL4N4101 Date Extracted:10/02/00
Dilution factor: 1 Date Analyzed: 10/02/00
Moisture %:

QC Batch: 0276437

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0I270200 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/27/00
Work Order: DL4N4101 Date Extracted:10/02/00
Dilution factor: 1 Date Analyzed: 10/02/00
Moisture %:

QC Batch: 0276437

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID: A0I270200 004

Matrix: (soil/water) WQ
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL
Work Order: DL4N4101
Dilution factor: 1
Moisture %:

Date Received: 09/27/00
Date Extracted: 10/02/00
Date Analyzed: 10/02/00

QC Batch: 0276437

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Received 10/23/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0I280163

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca Strait
Rebecca L. Strait
Project Manager

October 19, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: Law Engineering - Environmental	Project Manager: Rhonda Quinn	Date: 9/27/00	Chain of Custody Number: 49374
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: 770/~~404~~-386-9212	Lab Number:	Page 1 of 1
City: Kennesaw State: GA Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: VOC 8260B	Analysis: 1,4 Dioxane	Special Instructions/ Conditions of Receipt
SO-E-1 0-2'	9/25/00	1510			✓	4						✓	✓	analyses per Rhonda Quinn
SO-E-1 32-34'	9/25/00	1700			✓	4						✓	✓	
GW-E-4 48-52'	9/27/00	945	✓			~~4~~			3			✓	✓	
GW-E-4 ~~52-56'~~ 60-61'	9/27/00	1440	✓			~~4~~			3			✓	✓	
GW-E-4 44-48	9/27/00	920	✓			~~4~~			3			✓	✓	
Trip Blank	9/27/00	—	✓			~~4~~			1			✓	✓	
Rinseate Blank, screen	9/27/00	1540	✓						3			✓	✓	
Rinseate Blank, Soil sampler	9/27/00	1535	✓						3			✓	✓	
SO-E-4 (40-42')	9/27/00	1500			✓	4						✓	✓	
SO-E-4 (0-2')	9/27/00	1450			✓	4						✓	✓	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By	9/27/00	1549	1. Received By	9-28-00	930
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments:

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VA101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 48-52'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VA101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 48-52'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VA101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 48-52'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VE101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 60-61'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VE101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 60-61'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.8	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VE101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 60-61'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VJ101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 44-48'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Lab Sample ID:A0I280163 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Date Received: 09/28/00
Work Order: DL6VJ101
Date Extracted:09/29/00
Dilution factor: 1
Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 44-48'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	16	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VJ101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 44-48'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0I280163 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VK101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0I280163 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VK101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0I280163 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VK101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VM101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: RINSEATE BLANK SCREEN

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	6.2	
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VM101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: RINSEATE BLANK SCREEN

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VM101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: RINSEATE BLANK SCREEN

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VP101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: RINSEATE BLANK SOIL SAMPLER

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.8	
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0I280163 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VP101 Date Extracted: 09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: RINSEATE BLANK SOIL SAMPLER

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VP101 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: RINSEATE BLANK SOIL SAMPLER

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC
MATRIX SPIKE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VA102 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 48-52'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	99	
108-90-7	Chlorobenzene	100	
75-35-4	1,1-Dichloroethene	97	
108-88-3	Toluene	100	
79-01-6	Trichloroethene	98	

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I280163 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 09/28/00
Work Order: DL6VA103 Date Extracted:09/29/00
Dilution factor: 1 Date Analyzed: 09/29/00
Moisture %:

QC Batch: 0276286

Client Sample Id: GW-E-4 48-52'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	100	
108-90-7	Chlorobenzene	100	
75-35-4	1,1-Dichloroethene	98	
108-88-3	Toluene	100	
79-01-6	Trichloroethene	98	

Received 10/25/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0I290294

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

October 20, 2000

[redacted]

Chain of Custody Record

Quanterra

14

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
LAW	Rhonda Quinn	9/28/00	49375
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
3200 Town Point Dr. Ste 100	770/421-3400 / 770/421-3486		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144		Becky Strait	
Project Name	**Carrier/Waybill Number**		
TK Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOC 8260B	Analysis: 1,4 Dioxane	Special Instructions/ Conditions of Receipt
SO-E-5, 0-2'	9/27/00	1620			✓	4						✓	✓	Hold for Analysis
SO-E-5 36-38'	9/27/00	820			✓	4						✓	✓	Hold for Analysis
GW-E-5 40-44'	9/28/00	930	✓						3			✓	✓	Analyze per Rhonda Quinn
GW-E-5 44-48	9/28/00	1030	✓						3			✓	✓	
Trip Blank	9/28/00	—	✓						1			✓	✓	

Possible Hazard Identification TCE/TCA

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: E. Allen Yeager	9/28/00	1134	1. Received By: Anne Sanders	9-29-00	1030
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I290294 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEK101 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: GW-E-5 40-44'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I290294 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEK101 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: GW-E-5 40-44'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	20	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I290294 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEK101 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: GW-E-5 40-44'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I290294 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEN101 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: GW-E-5 44-48'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I290294 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEN101 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: GW-E-5 44-48'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I290294 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEN101 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: GW-E-5 44-48'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0I290294 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEQ101 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0I290294 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEQ101 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0I290294 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEQ101 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC
MATRIX SPIKE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I290294 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEK102 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: GW-E-5 40-44'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	93	
108-90-7	Chlorobenzene	97	
75-35-4	1,1-Dichloroethene	93	
108-88-3	Toluene	97	
79-01-6	Trichloroethene	110	

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0I290294 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 09/29/00
Work Order: DLAEK103 Date Extracted:10/04/00
Dilution factor: 1 Date Analyzed: 10/04/00
Moisture %:

QC Batch: 0279425

Client Sample Id: GW-E-5 40-44'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	95	
108-90-7	Chlorobenzene	100	
75-35-4	1,1-Dichloroethene	98	
108-88-3	Toluene	99	
79-01-6	Trichloroethene	120	

Received 10/25/00
Logged For DGE 10/25/00 14:00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING-LOUISVILLE

Lot #: A0J050260

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

October 20, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/02/00	Chain of Custody Number: 48454
Address: 3200 Town Point Drive, Ste. 1000	Telephone Number (Area Code)/Fax Number: (770) 421-3516 / 770 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: ThermoKing - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	Containers & Preservatives: H_2SO_4	Containers & Preservatives: HNO3	Containers & Preservatives: HCl	Containers & Preservatives: NaOH	Containers & Preservatives: ZnAc/NaOH	Analysis: 8260 per R. Quinn	Analysis: 1,4 Dioxane	Special Instructions/ Conditions of Receipt
MW-1	10/02/00	1915	X						3X			✓	✓	1,4 Dioxane to be included in the 8260 analysis per Rhonda Quinn
Matrix spike	10/02/00	1920	X						3X			✓	✓	
Matrix spike Duplicate	10/02/00	1925	X						3X			✓	✓	
MW-6	10/03/00	0950	X						3X			✓	✓	
MW-4	10/03/00	1115	X						3X			✓	✓	
MW-2	10/03/00	1445	X						3X			✓	✓	
MW-3	10/03/00	1640	X						3X			✓	✓	
MW-100 Dup of mw-3 025P 12/5/00	10/03/00	1645	X						3X			✓	✓	
EQB	10/03/00	1735	X						3X			✓	✓	
MW-5	10/03/00	1825	X						3X			✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Christopher Krank Jr.	10/04/00	0907	1. Received By: Anne Sanders	10-5-00	915
2. Relinquished By:	Date	Time	2. Received By:	Date	Time
3. Relinquished By:	Date	Time	3. Received By:	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: Law Eng.	Project Manager: Rhonda Quinn	Date: 10/4/00	Chain of Custody Number: 49377
Address: 3200 Town Pt. Dr., Ste 100	Telephone Number (Area Code)/Fax Number: 770-421-3516 / 770-421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: VOC 8260B	1-4, Dioxane	Special Instructions/ Conditions of Receipt
GW-E-6 (40-44')	10/3/00	1511	✓						3			✓	✓	analyses per Rhonda Quinn
GW-E-6 52-56	10/3/00	1710	✓						3			✓	✓	
GW-E-6 56-60	10/4/00	0816	✓						3			✓	✓	
GW-E-8 40-44	10/4/00	1112	✓						3			✓	✓	
GW-E-8 44-48	10/4/00	1140	✓						3			✓	✓	
GW-E-8 50-54	10/4/00	1352	✓						3			✓	✓	
Trip Blank	10/4/00		✓						1			✓	✓	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: E Allen Leger	Date: 10/4/00	Time: 1430	1. Received By: [signature]	Date: 10/5/00	Time: 915
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCP101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCP101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J050260 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL
Work Order: DLLCP101
Dilution factor: 1
Moisture %:

Date Received: 10/05/00
Date Extracted: 10/10/00
Date Analyzed: 10/10/00

QC Batch: 0285478

Client Sample Id: MW-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCT101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCT101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCT101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCV101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCV101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCV101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCW101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCW101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCW101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLCX101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: MW-3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLCX101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: MW-3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLCX101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: MW-3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD0101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: MW-100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD0101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: MW-100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J050260 006

Sample WT/Vol: 5 / mL
Work Order: DLLD0101
Dilution factor: 1
Moisture %:

Date Received: 10/05/00
Date Extracted:10/14/00
Date Analyzed: 10/14/00

QC Batch: 0289112

Client Sample Id: MW-100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD2101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD2101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J050260 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD2101 Date Extracted: 10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD3101 Date Extracted:10/14/00
Dilution factor: 100 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: MW-5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	500	U
108-86-1	Bromobenzene	500	U
74-97-5	Bromochloromethane	500	U
75-27-4	Bromodichloromethane	500	U
75-25-2	Bromoform	500	U
74-83-9	Bromomethane	500	U
104-51-8	n-Butylbenzene	500	U
135-98-8	sec-Butylbenzene	500	U
98-06-6	tert-Butylbenzene	500	U
56-23-5	Carbon tetrachloride	500	U
108-90-7	Chlorobenzene	500	U
124-48-1	Chlorodibromomethane	500	U
75-00-3	Chloroethane	500	U
67-66-3	Chloroform	500	U
74-87-3	Chloromethane	500	U
95-49-8	2-Chlorotoluene	500	U
106-43-4	4-Chlorotoluene	500	U
96-12-8	1,2-Dibromo-3-chloropropane	500	U
106-93-4	1,2-Dibromoethane	500	U
74-95-3	Dibromomethane	500	U
95-50-1	1,2-Dichlorobenzene	500	U
541-73-1	1,3-Dichlorobenzene	500	U
106-46-7	1,4-Dichlorobenzene	500	U
75-71-8	Dichlorodifluoromethane	500	U
75-34-3	1,1-Dichloroethane	500	U
107-06-2	1,2-Dichloroethane	500	U
156-59-2	cis-1,2-Dichloroethene	250	U
156-60-5	trans-1,2-Dichloroethene	250	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD3101 Date Extracted:10/14/00
Dilution factor: 100 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: MW-5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	500	U
78-87-5	1,2-Dichloropropane	500	U
142-28-9	1,3-Dichloropropane	500	U
594-20-7	2,2-Dichloropropane	500	U
563-58-6	1,1-Dichloropropene	500	U
123-91-1	1,4-Dioxane	25000	U
100-41-4	Ethylbenzene	500	U
87-68-3	Hexachlorobutadiene	500	U
98-82-8	Isopropylbenzene	500	U
99-87-6	p-Isopropyltoluene	500	U
75-09-2	Methylene chloride	500	U
91-20-3	Naphthalene	500	U
103-65-1	n-Propylbenzene	500	U
100-42-5	Styrene	500	U
630-20-6	1,1,1,2-Tetrachloroethane	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
127-18-4	Tetrachloroethene	500	U
108-88-3	Toluene	500	U
87-61-6	1,2,3-Trichlorobenzene	500	U
120-82-1	1,2,4-Trichlorobenzene	500	U
71-55-6	1,1,1-Trichloroethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
79-01-6	Trichloroethene	15000	
75-69-4	Trichlorofluoromethane	500	U
96-18-4	1,2,3-Trichloropropane	500	U
95-63-6	1,2,4-Trimethylbenzene	500	U
108-67-8	1,3,5-Trimethylbenzene	500	U
75-01-4	Vinyl chloride	200	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD3101 Date Extracted:10/14/00
Dilution factor: 100 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: MW-5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	500	U
95-47-6	o-Xylene	250	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD4101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-6 (40-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD4101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-6 (40-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD4101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-6 (40-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD5101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-B-6 52-56

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD5101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-6 52-56

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD5101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-6 52-56

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD7101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-6 56-60

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD7101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-6 56-60

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD7101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-6 56-60

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD8101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 40-44

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD8101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 40-44

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	21	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD8101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 40-44

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 013
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD9101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 44-48

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 013
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD9101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 44-48

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 013
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD9101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 44-48

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 014
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLDC101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 50-54

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 014
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLDC101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 50-54

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	13	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 014
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLDC101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 50-54

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J050260 015
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLDD101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: TRIP BLANK (COC# 49377)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J050260 015
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLDD101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: TRIP BLANK (COC# 49377)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J050260 015

Sample WT/Vol: 5 / mL
Work Order: DLLDD101
Dilution factor: 1
Moisture %:

Date Received: 10/05/00
Date Extracted:10/14/00
Date Analyzed: 10/14/00

QC Batch: 0289112

Client Sample Id: TRIP BLANK (COC# 49377)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J050260 016
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLDM101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: TRIP BLANK (COC# 48454)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J050260 016
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLDM101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: TRIP BLANK (COC# 48454)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J050260 016

Sample WT/Vol: 5 / mL
Work Order: DLLDM101
Dilution factor: 1
Moisture %:

Date Received: 10/05/00
Date Extracted:10/14/00
Date Analyzed: 10/14/00

QC Batch: 0289112

Client Sample Id: TRIP BLANK (COC# 48454)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC
MATRIX SPIKE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCP102 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	89	
108-90-7	Chlorobenzene	97	
75-35-4	1,1-Dichloroethene	91	
108-88-3	Toluene	94	
79-01-6	Trichloroethene	91	

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/05/00
Work Order: DLLCP103 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: MW-1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	91	
108-90-7	Chlorobenzene	100	
75-35-4	1,1-Dichloroethene	89	
108-88-3	Toluene	97	
79-01-6	Trichloroethene	93	

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD8103 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 40-44

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	49	
108-90-7	Chlorobenzene	51	
75-35-4	1,1-Dichloroethene	49	
108-88-3	Toluene	48	
79-01-6	Trichloroethene	58	

LAW ENVIRONMENTAL INC
MATRIX SPIKE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J050260 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/05/00
Work Order: DLLD8102 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-8 40-44

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	50	
108-90-7	Chlorobenzene	52	
75-35-4	1,1-Dichloroethene	52	
108-88-3	Toluene	50	
79-01-6	Trichloroethene	71	

Received 10/25/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0J040215

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

October 20, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: Law Eng.	Project Manager: Rhonda Quinn	Date: 10/3/00	Chain of Custody Number: 49376
Address: 3200 Town Point Dr., Ste 100	Telephone Number (Area Code)/Fax Number: 770-421-3400 / 770-421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30075	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOC 8260B	1-4, dioxane	Special Instructions/ Conditions of Receipt
GW-E-3 44-48'	10/2/00	1420	✓						3			✓	✓	Analyses per Rhonda Quinn
GW-E-3 52-56'	10/2/00	1645	✓						3			✓	✓	
GW-E-3 56-60'	10/2/00	1820	✓						3			✓	✓	
GW-E-7 31-35'	10/3/00	800	✓						3			✓	✓	
GW-E-7 35-39	10/3/00	835	✓						3			✓	✓	
GW-E-7 48-52	10/3/00	920	✓						3			✓	✓	
Trip Blank	10/3/00		✓						1			✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: S. Allison Seeger	Date: 10/3/00	Time: 1006	1. Received By:	Date: 10/4/00	Time: 925
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

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LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTA101 Date Extracted:10/10/00
Dilution factor: 25 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-3 44-48'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	120	U
108-86-1	Bromobenzene	120	U
74-97-5	Bromochloromethane	120	U
75-27-4	Bromodichloromethane	120	U
75-25-2	Bromoform	120	U
74-83-9	Bromomethane	120	U
104-51-8	n-Butylbenzene	120	U
135-98-8	sec-Butylbenzene	120	U
98-06-6	tert-Butylbenzene	120	U
56-23-5	Carbon tetrachloride	120	U
108-90-7	Chlorobenzene	120	U
124-48-1	Chlorodibromomethane	120	U
75-00-3	Chloroethane	120	U
67-66-3	Chloroform	120	U
74-87-3	Chloromethane	120	U
95-49-8	2-Chlorotoluene	120	U
106-43-4	4-Chlorotoluene	120	U
96-12-8	1,2-Dibromo-3-chloropropane	120	U
106-93-4	1,2-Dibromoethane	120	U
74-95-3	Dibromomethane	120	U
95-50-1	1,2-Dichlorobenzene	120	U
541-73-1	1,3-Dichlorobenzene	120	U
106-46-7	1,4-Dichlorobenzene	120	U
75-71-8	Dichlorodifluoromethane	120	U
75-34-3	1,1-Dichloroethane	120	U
107-06-2	1,2-Dichloroethane	120	U
156-59-2	cis-1,2-Dichloroethene	62	U
156-60-5	trans-1,2-Dichloroethene	62	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTA101 Date Extracted:10/10/00
Dilution factor: 25 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-3 44-48'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	**1,1-Dichloroethene**	**440**	
78-87-5	1,2-Dichloropropane	120	U
142-28-9	1,3-Dichloropropane	120	U
594-20-7	2,2-Dichloropropane	120	U
563-58-6	1,1-Dichloropropene	120	U
123-91-1	1,4-Dioxane	6200	U
100-41-4	Ethylbenzene	120	U
87-68-3	Hexachlorobutadiene	120	U
98-82-8	Isopropylbenzene	120	U
99-87-6	p-Isopropyltoluene	120	U
75-09-2	Methylene chloride	120	U
91-20-3	Naphthalene	120	U
103-65-1	n-Propylbenzene	120	U
100-42-5	Styrene	120	U
630-20-6	1,1,1,2-Tetrachloroethane	120	U
79-34-5	1,1,2,2-Tetrachloroethane	120	U
127-18-4	Tetrachloroethene	120	U
108-88-3	Toluene	120	U
87-61-6	1,2,3-Trichlorobenzene	120	U
120-82-1	1,2,4-Trichlorobenzene	120	U
71-55-6	**1,1,1-Trichloroethane**	**2800**	
79-00-5	1,1,2-Trichloroethane	120	U
79-01-6	**Trichloroethene**	**1800**	
75-69-4	Trichlorofluoromethane	120	U
96-18-4	1,2,3-Trichloropropane	120	U
95-63-6	1,2,4-Trimethylbenzene	120	U
108-67-8	1,3,5-Trimethylbenzene	120	U
75-01-4	Vinyl chloride	50	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTA101 Date Extracted:10/10/00
Dilution factor: 25 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-3 44-48'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	120	U
95-47-6	o-Xylene	62	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTD101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-3 52-56'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTD101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-3 52-56'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	**1,1,1-Trichloroethane**	**13**	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	**Trichloroethene**	**35**	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTD101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-3 52-56'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTF101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-3 56-60'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTF101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-3 56-60'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	**1,1,1-Trichloroethane**	**8.2**	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	**Trichloroethene**	**41**	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTF101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-3 56-60'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTG101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-7 31-35'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTG101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-7 31-35'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	8.4	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTG101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-7 31-35'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTJ101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-7 35-39'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTJ101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-7 35-39'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTJ101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-7 35-39'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTL101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-7 48-52'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTL101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-7 48-52'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J040215 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTL101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: GW-E-7 48-52'

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J040215 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTP101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID: A0J040215 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTP101 Date Extracted: 10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J040215 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 1 / mL Date Received: 10/04/00
Work Order: DLHTP101 Date Extracted:10/10/00
Dilution factor: 1 Date Analyzed: 10/10/00
Moisture %:

QC Batch: 0285478

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

SAMPLE SUMMARY

A0J060184

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DLN3G	001	GW-E-9 (38-42)	10/04/00	15:41
DLN3L	002	GW-E-9 (44-48')	10/04/00	16:11
DLN3N	003	GW-E-9 (50-54)	10/04/00	16:55
DLN3P	004	GW-E-10 (44-48')	10/04/00	19:03
DLN3W	005	GW-E-10 (48-52)	10/04/00	19:30
DLN3X	006	GW-E-11 (44-48')	10/05/00	09:15
DLN43	007	GW-E-11 (50-54')	10/05/00	09:55
DLN46	008	GW-E-11 (54-58)	10/05/00	10:55
DLN48	009	TRIP BLANK	10/05/00	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: Law Engineers	Project Manager: Rhonda Quinn	Date: 10/5/00	Chain of Custody Number: 49378
Address: 3200 Town Point Dr. Ste 100	Telephone Number (Area Code)/Fax Number: 770/421-3516 / 770-421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOC 8260B	1-4 Dioxane	Special Instructions/ Conditions of Receipt
GW-E-9 (38-42)	10/4/00	1541	✓						3			✓	✓	Analyses per Rhonda Quinn
GW-E-9 (44-48')	10/4/00	1611	✓						3			✓	✓	
GW-E-9 (50-54)	10/4/00	1655	✓						3			✓	✓	
GW-E-10 (44-48)	10/4/00	1903	✓						3			✓	✓	
GW-E-10 (48-52)	10/4/00	1930	✓						3			✓	✓	
~~GW-E-10~~	~~10/4/00~~		~~✓~~						~~3~~			~~✓~~	~~✓~~	
GW-E-11 (44-48')	10/5/00	0950	✓						3			✓	✓	
GW-E-11 (50-54')	10/5/00	0955	✓						3			✓	✓	
GW-E-11 (54-58)	10/5/00	1055	✓						3			✓	✓	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	10/5/00	1108	1. Received By: [signature]	10/6/00	915A
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

14

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3G101 Date Extracted:10/14/00
Dilution factor: 1.43 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (38-42)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	7.2	U
108-86-1	Bromobenzene	7.2	U
74-97-5	Bromochloromethane	7.2	U
75-27-4	Bromodichloromethane	7.2	U
75-25-2	Bromoform	7.2	U
74-83-9	Bromomethane	7.2	U
104-51-8	n-Butylbenzene	7.2	U
135-98-8	sec-Butylbenzene	7.2	U
98-06-6	tert-Butylbenzene	7.2	U
56-23-5	Carbon tetrachloride	7.2	U
108-90-7	Chlorobenzene	7.2	U
124-48-1	Chlorodibromomethane	7.2	U
75-00-3	Chloroethane	7.2	U
67-66-3	Chloroform	7.2	U
74-87-3	Chloromethane	7.2	U
95-49-8	2-Chlorotoluene	7.2	U
106-43-4	4-Chlorotoluene	7.2	U
96-12-8	1,2-Dibromo-3-chloropropane	7.2	U
106-93-4	1,2-Dibromoethane	7.2	U
74-95-3	Dibromomethane	7.2	U
95-50-1	1,2-Dichlorobenzene	7.2	U
541-73-1	1,3-Dichlorobenzene	7.2	U
106-46-7	1,4-Dichlorobenzene	7.2	U
75-71-8	Dichlorodifluoromethane	7.2	U
75-34-3	1,1-Dichloroethane	7.2	U
107-06-2	1,2-Dichloroethane	7.2	U
156-59-2	cis-1,2-Dichloroethene	3.6	U
156-60-5	trans-1,2-Dichloroethene	3.6	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3G101 Date Extracted:10/14/00
Dilution factor: 1.43 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (38-42)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	7.2	U
78-87-5	1,2-Dichloropropane	7.2	U
142-28-9	1,3-Dichloropropane	7.2	U
594-20-7	2,2-Dichloropropane	7.2	U
563-58-6	1,1-Dichloropropene	7.2	U
123-91-1	1,4-Dioxane	360	U
100-41-4	Ethylbenzene	7.2	U
87-68-3	Hexachlorobutadiene	7.2	U
98-82-8	Isopropylbenzene	7.2	U
99-87-6	p-Isopropyltoluene	7.2	U
75-09-2	Methylene chloride	7.2	U
91-20-3	Naphthalene	7.2	U
103-65-1	n-Propylbenzene	7.2	U
100-42-5	Styrene	7.2	U
630-20-6	1,1,1,2-Tetrachloroethane	7.2	U
79-34-5	1,1,2,2-Tetrachloroethane	7.2	U
127-18-4	Tetrachloroethene	7.2	U
108-88-3	Toluene	7.2	U
87-61-6	1,2,3-Trichlorobenzene	7.2	U
120-82-1	1,2,4-Trichlorobenzene	7.2	U
71-55-6	1,1,1-Trichloroethane	7.2	U
79-00-5	1,1,2-Trichloroethane	7.2	U
79-01-6	**Trichloroethene**	**170**	
75-69-4	Trichlorofluoromethane	7.2	U
96-18-4	1,2,3-Trichloropropane	7.2	U
95-63-6	1,2,4-Trimethylbenzene	7.2	U
108-67-8	1,3,5-Trimethylbenzene	7.2	U
75-01-4	Vinyl chloride	2.9	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3G101 Date Extracted:10/14/00
Dilution factor: 1.43 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (38-42)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	7.2	U
95-47-6	o-Xylene	3.6	U

Received 10/25/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0J060184

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

October 20, 2000

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
Law Engineers	Rhonda Quinn	10/5/00	49378

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
3200 Town Point Dr. Ste 100	770/421-3516 / 770-421-3486		1 of 1

City	State	Zip Code	Site Contact	Lab Contact
Kennesaw	GA	30144		Becky Strait

Project Name	Carrier/Waybill Number
TK Louisville	

Contract/Purchase Order/Quote No.

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC 8260B	1-4 Dioxane	Special Instructions/ Conditions of Receipt
GW-E-9 (38-42)	10/4/00	1541	✓						3			✓	✓	Analyses per
GW-E-9 (44-48')	10/4/00	1611	✓						3			✓	✓	Rhonda Quinn
GW-E-9 (50-54)	10/4/00	1655	✓						3			✓	✓	
GW-E-10 (44-48)	10/4/00	1903	✓						3			✓	✓	
GW-E-10 (48-52)	10/4/00	1930	✓						3			✓	✓	
~~GW-E-10~~	~~10/4/00~~		~~✓~~						~~3~~			~~✓~~	~~✓~~	
GW-E-11 (44-48')	10/5/00	0950	✓						3			✓	✓	
GW-E-11 (50-54')	10/5/00	0955	✓						3			✓	✓	
GW-E-11 (54-58)	10/5/00	1055	✓						3			✓	✓	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	10/5/00	1108	1. Received By: [signature]	10/6/00	915A
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

14

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3G101 Date Extracted:10/14/00
Dilution factor: 1.43 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (38-42)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	7.2	U
108-86-1	Bromobenzene	7.2	U
74-97-5	Bromochloromethane	7.2	U
75-27-4	Bromodichloromethane	7.2	U
75-25-2	Bromoform	7.2	U
74-83-9	Bromomethane	7.2	U
104-51-8	n-Butylbenzene	7.2	U
135-98-8	sec-Butylbenzene	7.2	U
98-06-6	tert-Butylbenzene	7.2	U
56-23-5	Carbon tetrachloride	7.2	U
108-90-7	Chlorobenzene	7.2	U
124-48-1	Chlorodibromomethane	7.2	U
75-00-3	Chloroethane	7.2	U
67-66-3	Chloroform	7.2	U
74-87-3	Chloromethane	7.2	U
95-49-8	2-Chlorotoluene	7.2	U
106-43-4	4-Chlorotoluene	7.2	U
96-12-8	1,2-Dibromo-3-chloropropane	7.2	U
106-93-4	1,2-Dibromoethane	7.2	U
74-95-3	Dibromomethane	7.2	U
95-50-1	1,2-Dichlorobenzene	7.2	U
541-73-1	1,3-Dichlorobenzene	7.2	U
106-46-7	1,4-Dichlorobenzene	7.2	U
75-71-8	Dichlorodifluoromethane	7.2	U
75-34-3	1,1-Dichloroethane	7.2	U
107-06-2	1,2-Dichloroethane	7.2	U
156-59-2	cis-1,2-Dichloroethene	3.6	U
156-60-5	trans-1,2-Dichloroethene	3.6	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3G101 Date Extracted:10/14/00
Dilution factor: 1.43 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (38-42)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	7.2	U
78-87-5	1,2-Dichloropropane	7.2	U
142-28-9	1,3-Dichloropropane	7.2	U
594-20-7	2,2-Dichloropropane	7.2	U
563-58-6	1,1-Dichloropropene	7.2	U
123-91-1	1,4-Dioxane	360	U
100-41-4	Ethylbenzene	7.2	U
87-68-3	Hexachlorobutadiene	7.2	U
98-82-8	Isopropylbenzene	7.2	U
99-87-6	p-Isopropyltoluene	7.2	U
75-09-2	Methylene chloride	7.2	U
91-20-3	Naphthalene	7.2	U
103-65-1	n-Propylbenzene	7.2	U
100-42-5	Styrene	7.2	U
630-20-6	1,1,1,2-Tetrachloroethane	7.2	U
79-34-5	1,1,2,2-Tetrachloroethane	7.2	U
127-18-4	Tetrachloroethene	7.2	U
108-88-3	Toluene	7.2	U
87-61-6	1,2,3-Trichlorobenzene	7.2	U
120-82-1	1,2,4-Trichlorobenzene	7.2	U
71-55-6	1,1,1-Trichloroethane	7.2	U
79-00-5	1,1,2-Trichloroethane	7.2	U
79-01-6	Trichloroethene	170	
75-69-4	Trichlorofluoromethane	7.2	U
96-18-4	1,2,3-Trichloropropane	7.2	U
95-63-6	1,2,4-Trimethylbenzene	7.2	U
108-67-8	1,3,5-Trimethylbenzene	7.2	U
75-01-4	Vinyl chloride	2.9	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J060184 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3G101 Date Extracted: 10/14/00
Dilution factor: 1.43 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (38-42)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	7.2	U
95-47-6	o-Xylene	3.6	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3L101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3L101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	**Trichloroethene**	**38**	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3L101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3N101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3N101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	10	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3N101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-9 (50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3P101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-10 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3P101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-10 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	38	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3P101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-10 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3W101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-10 (48-52)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3W101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-10 (48-52)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3W101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-10 (48-52)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3X101 Date Extracted:10/14/00
Dilution factor: 3.33 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-11 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	17	U
108-86-1	Bromobenzene	17	U
74-97-5	Bromochloromethane	17	U
75-27-4	Bromodichloromethane	17	U
75-25-2	Bromoform	17	U
74-83-9	Bromomethane	17	U
104-51-8	n-Butylbenzene	17	U
135-98-8	sec-Butylbenzene	17	U
98-06-6	tert-Butylbenzene	17	U
56-23-5	Carbon tetrachloride	17	U
108-90-7	Chlorobenzene	17	U
124-48-1	Chlorodibromomethane	17	U
75-00-3	Chloroethane	17	U
67-66-3	Chloroform	17	U
74-87-3	Chloromethane	17	U
95-49-8	2-Chlorotoluene	17	U
106-43-4	4-Chlorotoluene	17	U
96-12-8	1,2-Dibromo-3-chloropropane	17	U
106-93-4	1,2-Dibromoethane	17	U
74-95-3	Dibromomethane	17	U
95-50-1	1,2-Dichlorobenzene	17	U
541-73-1	1,3-Dichlorobenzene	17	U
106-46-7	1,4-Dichlorobenzene	17	U
75-71-8	Dichlorodifluoromethane	17	U
75-34-3	1,1-Dichloroethane	17	U
107-06-2	1,2-Dichloroethane	17	U
156-59-2	cis-1,2-Dichloroethene	12	
156-60-5	trans-1,2-Dichloroethene	8.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3X101 Date Extracted:10/14/00
Dilution factor: 3.33 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-11 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	23	
78-87-5	1,2-Dichloropropane	17	U
142-28-9	1,3-Dichloropropane	17	U
594-20-7	2,2-Dichloropropane	17	U
563-58-6	1,1-Dichloropropene	17	U
123-91-1	1,4-Dioxane	830	U
100-41-4	Ethylbenzene	17	U
87-68-3	Hexachlorobutadiene	17	U
98-82-8	Isopropylbenzene	17	U
99-87-6	p-Isopropyltoluene	17	U
75-09-2	Methylene chloride	17	U
91-20-3	Naphthalene	17	U
103-65-1	n-Propylbenzene	17	U
100-42-5	Styrene	17	U
630-20-6	1,1,1,2-Tetrachloroethane	17	U
79-34-5	1,1,2,2-Tetrachloroethane	17	U
127-18-4	Tetrachloroethene	17	U
108-88-3	Toluene	17	U
87-61-6	1,2,3-Trichlorobenzene	17	U
120-82-1	1,2,4-Trichlorobenzene	17	U
71-55-6	1,1,1-Trichloroethane	34	
79-00-5	1,1,2-Trichloroethane	17	U
79-01-6	Trichloroethene	520	
75-69-4	Trichlorofluoromethane	17	U
96-18-4	1,2,3-Trichloropropane	17	U
95-63-6	1,2,4-Trimethylbenzene	17	U
108-67-8	1,3,5-Trimethylbenzene	17	U
75-01-4	Vinyl chloride	6.7	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN3X101 Date Extracted:10/14/00
Dilution factor: 3.33 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-11 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	17	U
95-47-6	o-Xylene	8.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN43101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-11 (50-54')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN43101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-11 (50-54')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	26	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN43101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-11 (50-54')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN46101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-11 (54-58)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J060184 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN46101 Date Extracted:10/14/00
Dilution factor: 1 Date Analyzed: 10/14/00
Moisture %:

QC Batch: 0289112

Client Sample Id: GW-E-11 (54-58)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	150	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID: A0J060184 008

Sample WT/Vol: 5 / mL
Work Order: DLN46101
Dilution factor: 1
Moisture %:

Date Received: 10/06/00
Date Extracted: 10/14/00
Date Analyzed: 10/14/00

QC Batch: 0289112

Client Sample Id: GW-E-11 (54-58)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J060184 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN48101 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J060184 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN48101 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J060184 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/06/00
Work Order: DLN48101 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Received 10/25/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0J070191

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

/Rebecca Strait
Rebecca L. Strait
Project Manager

October 20, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: Law Engineers	Project Manager: Rhonda Quinn	Date: 10/6/00	Chain of Custody Number: 49379
Address: 3200 Town Point Dr. Ste 100	Telephone Number (Area Code)/Fax Number: 770-421-3516 / 770-421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOC 8260B	1-4 Dioxane	Special Instructions/ Conditions of Receipt
GW-E-12 40-44	10/4/00	1755	✓						3			✓	✓	Analyses for Rhonda Quinn
GW-E-12 44-48	10/5/00	1855	✓						3			✓	✓	
GW-E-12 50-54'	10/6/00	0750	✓						3			✓	✓	
GW-E-14 48-52	10/6/00	1100	✓						3			✓	✓	
GW-E-14 52-56	10/6/00	1153	✓						3			✓	✓	
GW-E-14 56-60	10/6/00	1230	✓						3			✓	✓	
Trip Blank	10/6/00		✓						1			✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	10/6/00	1933	1. Received By: Anne Sanders	10-7-00	1000
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

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LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXD101 Date Extracted:10/15/00
Dilution factor: 25 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-12 40-44

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	120	U
108-86-1	Bromobenzene	120	U
74-97-5	Bromochloromethane	120	U
75-27-4	Bromodichloromethane	120	U
75-25-2	Bromoform	120	U
74-83-9	Bromomethane	120	U
104-51-8	n-Butylbenzene	120	U
135-98-8	sec-Butylbenzene	120	U
98-06-6	tert-Butylbenzene	120	U
56-23-5	Carbon tetrachloride	120	U
108-90-7	Chlorobenzene	120	U
124-48-1	Chlorodibromomethane	120	U
75-00-3	Chloroethane	120	U
67-66-3	Chloroform	120	U
74-87-3	Chloromethane	120	U
95-49-8	2-Chlorotoluene	120	U
106-43-4	4-Chlorotoluene	120	U
96-12-8	1,2-Dibromo-3-chloropropane	120	U
106-93-4	1,2-Dibromoethane	120	U
74-95-3	Dibromomethane	120	U
95-50-1	1,2-Dichlorobenzene	120	U
541-73-1	1,3-Dichlorobenzene	120	U
106-46-7	1,4-Dichlorobenzene	120	U
75-71-8	Dichlorodifluoromethane	120	U
75-34-3	1,1-Dichloroethane	120	U
107-06-2	1,2-Dichloroethane	120	U
156-59-2	cis-1,2-Dichloroethene	62	U
156-60-5	trans-1,2-Dichloroethene	62	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXD101 Date Extracted:10/15/00
Dilution factor: 25 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-12 40-44

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	120	U
78-87-5	1,2-Dichloropropane	120	U
142-28-9	1,3-Dichloropropane	120	U
594-20-7	2,2-Dichloropropane	120	U
563-58-6	1,1-Dichloropropene	120	U
123-91-1	1,4-Dioxane	6200	U
100-41-4	Ethylbenzene	120	U
87-68-3	Hexachlorobutadiene	120	U
98-82-8	Isopropylbenzene	120	U
99-87-6	p-Isopropyltoluene	120	U
75-09-2	Methylene chloride	120	U
91-20-3	Naphthalene	120	U
103-65-1	n-Propylbenzene	120	U
100-42-5	Styrene	120	U
630-20-6	1,1,1,2-Tetrachloroethane	120	U
79-34-5	1,1,2,2-Tetrachloroethane	120	U
127-18-4	Tetrachloroethene	120	U
108-88-3	Toluene	120	U
87-61-6	1,2,3-Trichlorobenzene	120	U
120-82-1	1,2,4-Trichlorobenzene	120	U
71-55-6	**1,1,1-Trichloroethane**	**180**	
79-00-5	1,1,2-Trichloroethane	120	U
79-01-6	**Trichloroethene**	**3900**	
75-69-4	Trichlorofluoromethane	120	U
96-18-4	1,2,3-Trichloropropane	120	U
95-63-6	1,2,4-Trimethylbenzene	120	U
108-67-8	1,3,5-Trimethylbenzene	120	U
75-01-4	Vinyl chloride	50	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXD101 Date Extracted:10/15/00
Dilution factor: 25 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-12 40-44

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	120	U
95-47-6	o-Xylene	62	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXG101 Date Extracted:10/15/00
Dilution factor: 3.33 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-12 44-48

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	17	U
108-86-1	Bromobenzene	17	U
74-97-5	Bromochloromethane	17	U
75-27-4	Bromodichloromethane	17	U
75-25-2	Bromoform	17	U
74-83-9	Bromomethane	17	U
104-51-8	n-Butylbenzene	17	U
135-98-8	sec-Butylbenzene	17	U
98-06-6	tert-Butylbenzene	17	U
56-23-5	Carbon tetrachloride	17	U
108-90-7	Chlorobenzene	17	U
124-48-1	Chlorodibromomethane	17	U
75-00-3	Chloroethane	17	U
67-66-3	Chloroform	17	U
74-87-3	Chloromethane	17	U
95-49-8	2-Chlorotoluene	17	U
106-43-4	4-Chlorotoluene	17	U
96-12-8	1,2-Dibromo-3-chloropropane	17	U
106-93-4	1,2-Dibromoethane	17	U
74-95-3	Dibromomethane	17	U
95-50-1	1,2-Dichlorobenzene	17	U
541-73-1	1,3-Dichlorobenzene	17	U
106-46-7	1,4-Dichlorobenzene	17	U
75-71-8	Dichlorodifluoromethane	17	U
75-34-3	1,1-Dichloroethane	17	U
107-06-2	1,2-Dichloroethane	17	U
156-59-2	cis-1,2-Dichloroethene	8.3	U
156-60-5	trans-1,2-Dichloroethene	8.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXG101 Date Extracted:10/15/00
Dilution factor: 3.33 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-12 44-48

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	17	U
78-87-5	1,2-Dichloropropane	17	U
142-28-9	1,3-Dichloropropane	17	U
594-20-7	2,2-Dichloropropane	17	U
563-58-6	1,1-Dichloropropene	17	U
123-91-1	1,4-Dioxane	830	U
100-41-4	Ethylbenzene	17	U
87-68-3	Hexachlorobutadiene	17	U
98-82-8	Isopropylbenzene	17	U
99-87-6	p-Isopropyltoluene	17	U
75-09-2	Methylene chloride	17	U
91-20-3	Naphthalene	17	U
103-65-1	n-Propylbenzene	17	U
100-42-5	Styrene	17	U
630-20-6	1,1,1,2-Tetrachloroethane	17	U
79-34-5	1,1,2,2-Tetrachloroethane	17	U
127-18-4	Tetrachloroethene	17	U
108-88-3	Toluene	17	U
87-61-6	1,2,3-Trichlorobenzene	17	U
120-82-1	1,2,4-Trichlorobenzene	17	U
71-55-6	**1,1,1-Trichloroethane**	**24**	
79-00-5	1,1,2-Trichloroethane	17	U
79-01-6	**Trichloroethene**	**460**	
75-69-4	Trichlorofluoromethane	17	U
96-18-4	1,2,3-Trichloropropane	17	U
95-63-6	1,2,4-Trimethylbenzene	17	U
108-67-8	1,3,5-Trimethylbenzene	17	U
75-01-4	Vinyl chloride	6.7	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXG101 Date Extracted:10/15/00
Dilution factor: 3.33 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-12 44-48

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	17	U
95-47-6	o-Xylene	8.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXH101 Date Extracted:10/15/00
Dilution factor: 33.33 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-12 50-54

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	170	U
108-86-1	Bromobenzene	170	U
74-97-5	Bromochloromethane	170	U
75-27-4	Bromodichloromethane	170	U
75-25-2	Bromoform	170	U
74-83-9	Bromomethane	170	U
104-51-8	n-Butylbenzene	170	U
135-98-8	sec-Butylbenzene	170	U
98-06-6	tert-Butylbenzene	170	U
56-23-5	Carbon tetrachloride	170	U
108-90-7	Chlorobenzene	170	U
124-48-1	Chlorodibromomethane	170	U
75-00-3	Chloroethane	170	U
67-66-3	Chloroform	170	U
74-87-3	Chloromethane	170	U
95-49-8	2-Chlorotoluene	170	U
106-43-4	4-Chlorotoluene	170	U
96-12-8	1,2-Dibromo-3-chloropropane	170	U
106-93-4	1,2-Dibromoethane	170	U
74-95-3	Dibromomethane	170	U
95-50-1	1,2-Dichlorobenzene	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
75-71-8	Dichlorodifluoromethane	170	U
75-34-3	1,1-Dichloroethane	170	U
107-06-2	1,2-Dichloroethane	170	U
156-59-2	cis-1,2-Dichloroethene	83	U
156-60-5	trans-1,2-Dichloroethene	83	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXH101 Date Extracted:10/15/00
Dilution factor: 33.33 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-12 50-54

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	170	U
78-87-5	1,2-Dichloropropane	170	U
142-28-9	1,3-Dichloropropane	170	U
594-20-7	2,2-Dichloropropane	170	U
563-58-6	1,1-Dichloropropene	170	U
123-91-1	1,4-Dioxane	8300	U
100-41-4	Ethylbenzene	170	U
87-68-3	Hexachlorobutadiene	170	U
98-82-8	Isopropylbenzene	170	U
99-87-6	p-Isopropyltoluene	170	U
75-09-2	Methylene chloride	170	U
91-20-3	Naphthalene	170	U
103-65-1	n-Propylbenzene	170	U
100-42-5	Styrene	170	U
630-20-6	1,1,1,2-Tetrachloroethane	170	U
79-34-5	1,1,2,2-Tetrachloroethane	170	U
127-18-4	Tetrachloroethene	170	U
108-88-3	Toluene	170	U
87-61-6	1,2,3-Trichlorobenzene	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
71-55-6	1,1,1-Trichloroethane	170	U
79-00-5	1,1,2-Trichloroethane	170	U
79-01-6	Trichloroethene	4200	
75-69-4	Trichlorofluoromethane	170	U
96-18-4	1,2,3-Trichloropropane	170	U
95-63-6	1,2,4-Trimethylbenzene	170	U
108-67-8	1,3,5-Trimethylbenzene	170	U
75-01-4	Vinyl chloride	67	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXH101 Date Extracted:10/15/00
Dilution factor: 33.33 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-12 50-54

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	170	U
95-47-6	o-Xylene	83	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXJ101 Date Extracted:10/15/00
Dilution factor: 10 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-14 48-52

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	50	U
108-86-1	Bromobenzene	50	U
74-97-5	Bromochloromethane	50	U
75-27-4	Bromodichloromethane	50	U
75-25-2	Bromoform	50	U
74-83-9	Bromomethane	50	U
104-51-8	n-Butylbenzene	50	U
135-98-8	sec-Butylbenzene	50	U
98-06-6	tert-Butylbenzene	50	U
56-23-5	Carbon tetrachloride	50	U
108-90-7	Chlorobenzene	50	U
124-48-1	Chlorodibromomethane	50	U
75-00-3	Chloroethane	50	U
67-66-3	Chloroform	50	U
74-87-3	Chloromethane	50	U
95-49-8	2-Chlorotoluene	50	U
106-43-4	4-Chlorotoluene	50	U
96-12-8	1,2-Dibromo-3-chloropropane	50	U
106-93-4	1,2-Dibromoethane	50	U
74-95-3	Dibromomethane	50	U
95-50-1	1,2-Dichlorobenzene	50	U
541-73-1	1,3-Dichlorobenzene	50	U
106-46-7	1,4-Dichlorobenzene	50	U
75-71-8	Dichlorodifluoromethane	50	U
75-34-3	1,1-Dichloroethane	50	U
107-06-2	1,2-Dichloroethane	50	U
156-59-2	cis-1,2-Dichloroethene	69	
156-60-5	trans-1,2-Dichloroethene	25	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXJ101 Date Extracted:10/15/00
Dilution factor: 10 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-14 48-52

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	260	
78-87-5	1,2-Dichloropropane	50	U
142-28-9	1,3-Dichloropropane	50	U
594-20-7	2,2-Dichloropropane	50	U
563-58-6	1,1-Dichloropropene	50	U
123-91-1	1,4-Dioxane	2500	U
100-41-4	Ethylbenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
98-82-8	Isopropylbenzene	50	U
99-87-6	p-Isopropyltoluene	50	U
75-09-2	Methylene chloride	50	U
91-20-3	Naphthalene	50	U
103-65-1	n-Propylbenzene	50	U
100-42-5	Styrene	50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
127-18-4	Tetrachloroethene	50	U
108-88-3	Toluene	50	U
87-61-6	1,2,3-Trichlorobenzene	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
71-55-6	1,1,1-Trichloroethane	1400	
79-00-5	1,1,2-Trichloroethane	50	U
79-01-6	Trichloroethene	1500	
75-69-4	Trichlorofluoromethane	50	U
96-18-4	1,2,3-Trichloropropane	50	U
95-63-6	1,2,4-Trimethylbenzene	50	U
108-67-8	1,3,5-Trimethylbenzene	50	U
75-01-4	Vinyl chloride	20	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXJ101 Date Extracted:10/15/00
Dilution factor: 10 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-14 48-52

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	50	U
95-47-6	o-Xylene	25	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXK101 Date Extracted:10/16/00
Dilution factor: 8.33 Date Analyzed: 10/16/00
Moisture %:

QC Batch: 0292488

Client Sample Id: GW-E-14 52-56

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	42	U
108-86-1	Bromobenzene	42	U
74-97-5	Bromochloromethane	42	U
75-27-4	Bromodichloromethane	42	U
75-25-2	Bromoform	42	U
74-83-9	Bromomethane	42	U
104-51-8	n-Butylbenzene	42	U
135-98-8	sec-Butylbenzene	42	U
98-06-6	tert-Butylbenzene	42	U
56-23-5	Carbon tetrachloride	42	U
108-90-7	Chlorobenzene	42	U
124-48-1	Chlorodibromomethane	42	U
75-00-3	Chloroethane	42	U
67-66-3	Chloroform	42	U
74-87-3	Chloromethane	42	U
95-49-8	2-Chlorotoluene	42	U
106-43-4	4-Chlorotoluene	42	U
96-12-8	1,2-Dibromo-3-chloropropane	42	U
106-93-4	1,2-Dibromoethane	42	U
74-95-3	Dibromomethane	42	U
95-50-1	1,2-Dichlorobenzene	42	U
541-73-1	1,3-Dichlorobenzene	42	U
106-46-7	1,4-Dichlorobenzene	42	U
75-71-8	Dichlorodifluoromethane	42	U
75-34-3	1,1-Dichloroethane	42	U
107-06-2	1,2-Dichloroethane	42	U
156-59-2	cis-1,2-Dichloroethene	68	
156-60-5	trans-1,2-Dichloroethene	21	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXK101 Date Extracted:10/16/00
Dilution factor: 8.33 Date Analyzed: 10/16/00
Moisture %:

QC Batch: 0292488

Client Sample Id: GW-E-14 52-56

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	310	
78-87-5	1,2-Dichloropropane	42	U
142-28-9	1,3-Dichloropropane	42	U
594-20-7	2,2-Dichloropropane	42	U
563-58-6	1,1-Dichloropropene	42	U
123-91-1	1,4-Dioxane	2100	U
100-41-4	Ethylbenzene	42	U
87-68-3	Hexachlorobutadiene	42	U
98-82-8	Isopropylbenzene	42	U
99-87-6	p-Isopropyltoluene	42	U
75-09-2	Methylene chloride	42	U
91-20-3	Naphthalene	42	U
103-65-1	n-Propylbenzene	42	U
100-42-5	Styrene	42	U
630-20-6	1,1,1,2-Tetrachloroethane	42	U
79-34-5	1,1,2,2-Tetrachloroethane	42	U
127-18-4	Tetrachloroethene	42	U
108-88-3	Toluene	42	U
87-61-6	1,2,3-Trichlorobenzene	42	U
120-82-1	1,2,4-Trichlorobenzene	42	U
71-55-6	1,1,1-Trichloroethane	1300	
79-00-5	1,1,2-Trichloroethane	42	U
79-01-6	Trichloroethene	1500	
75-69-4	Trichlorofluoromethane	42	U
96-18-4	1,2,3-Trichloropropane	42	U
95-63-6	1,2,4-Trimethylbenzene	42	U
108-67-8	1,3,5-Trimethylbenzene	42	U
75-01-4	Vinyl chloride	17	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXK101 Date Extracted:10/16/00
Dilution factor: 8.33 Date Analyzed: 10/16/00
Moisture %:
QC Batch: 0292488

Client Sample Id: GW-E-14 52-56

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	42	U
95-47-6	o-Xylene	21	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXL101 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-14 56-60

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J070191 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXL101 Date Extracted: 10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-14 56-60

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	7.9	
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	34	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	67	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXL101 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-14 56-60

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J070191 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXM101 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J070191 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXM101 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J070191 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXM101 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC
MATRIX SPIKE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXL102 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-14 56-60

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	51	
108-90-7	Chlorobenzene	53	
75-35-4	1,1-Dichloroethene	58	
108-88-3	Toluene	49	
79-01-6	Trichloroethene	110	

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J070191 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/07/00
Work Order: DLQXL103 Date Extracted:10/15/00
Dilution factor: 1 Date Analyzed: 10/15/00
Moisture %:

QC Batch: 0290641

Client Sample Id: GW-E-14 56-60

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	49	
108-90-7	Chlorobenzene	50	
75-35-4	1,1-Dichloroethene	56	
108-88-3	Toluene	47	
79-01-6	Trichloroethene	110	

Received 11/13/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE
SDG #: 0J11227

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 10, 2000

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/10/00	Chain of Custody Number: 48455
Address: 3200 Town Point Drive Suite 100	Telephone Number (Area Code)/Fax Number: 770-421-3516 / 770-421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: AL / Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260	1-4 Dioxane
GW-E-13 (44-48')	10/9/00	1400	✓						3			✓	✓
GW-E-13 (48-52')	10/9/00	1505	✓						3			✓	✓
GW-E-13 (56-60')	10/9/00	1718	✓						3			✓	✓
SO-E-13 (38-40')	10/9/00	1800			✓	4						✓	✓
SO-E-13 (0-4')	10/9/00	1810			✓	4						✓	✓
SO-E-13 (14-16')	10/9/00	1820			✓	4						✓	✓
Trip Blank	10/9/00	1400	✓						1			✓	✓
GW-E-5 (54-58')	10/10/00	0855	✓						3			✓	✓

Special Instructions/ Conditions of Receipt

Analyze For
Rhonda Quinn

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time
1. Relinquished By: Christopher Kennedy	10/10/00	1153
2. Relinquished By:		
3. Relinquished By:		
1. Received By:	10/11/00	940
2. Received By:		
3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW Environmental & Engineering	Project Manager: Rhonda Quinn	Date: 10/11/00	Chain of Custody Number: 48901
Address: 3800 Town Point Drive Suite 100	Telephone Number (Area Code)/Fax Number: 770/421-3516 / 770-421-3486	Lab Number:	Page ____ of ____
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H_2SO_4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260B	14 Diorane	Special Instructions/ Conditions of Receipt
GW-E-15 (48-52')	10/11/00	1011	✓						3			✓	✓	Analyze For Rhonda Quinn
Matrix Spike	10/11/00	1017	✓						3			✓	✓	
Matrix Spike Duplicate	10/11/00	1021	✓						3			✓	✓	
GW-E-15 (54-58')	10/11/00	1102	✓						3			✓	✓	
GW-E-15 (61-65')	10/11/00	1153	✓	OK 10/11/00					3			✓	✓	
GW-AOC-8-1 (0'-2')	10/11/00	1915		X	✓	4						✓	✓	
GW-AOC 8-1 (14'-16')	10/4/00	1930		X	✓	4						✓	✓	
GW AOC 8-1 (38'-40')	10/11/00	1995		X	✓	4						✓	✓	
Trip Blank									1			✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other ____

QC Requirements (Specify)

1. Relinquished By: Christopher Kramb Jr.	Date: 10/12/00	Time: 0845	1. Received By: Anne Sanders	Date: 10-13-00	Time: 915
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/13/00	Chain of Custody Number: 48902
Address: 3200 Town Point Dr., Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3516/(770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260 B	1,4 Dioxane
GW-AOC 8-2 0'-2'	10/12/00	1335			✓	4						✓	✓
GW-AOC 8-2 18'-20'	10/12/00	1345			✓	4						✓	✓
GW-AOC 8-2 38'-40'	10/12/00	1730			✓	4						✓	✓
GW-AOC 10-1 0'-2'	10/12/00	1848			✓	4						✓	✓
GW-AOC 10-1 18'-20'	10/12/00	1915			✓	4						✓	✓
GW-AOC 10-1 38'-40'	10/12/00	1925			✓	4						✓	✓
Trip Blank			✓						1			✓	✓

Special Instructions/ Conditions of Receipt: Analyze samples for Rhonda Quinn

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other

QC Requirements (Specify)

1. Relinquished By: Christopher Kramb Jr.	Date: 10/13/00	Time: 1145	1. Received By: Daniel Sanders	Date: 10-14-00	Time: 1000
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXRQ101 Date Extracted:10/17/00
Dilution factor: 20 Date Analyzed: 10/17/00
Moisture %:

QC Batch: 0292488

Client Sample Id: GW-E-13 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	100	U
108-86-1	Bromobenzene	100	U
74-97-5	Bromochloromethane	100	U
75-27-4	Bromodichloromethane	100	U
75-25-2	Bromoform	100	U
74-83-9	Bromomethane	100	U
104-51-8	n-Butylbenzene	100	U
135-98-8	sec-Butylbenzene	100	U
98-06-6	tert-Butylbenzene	100	U
56-23-5	Carbon tetrachloride	100	U
108-90-7	Chlorobenzene	100	U
124-48-1	Chlorodibromomethane	100	U
75-00-3	Chloroethane	100	U
67-66-3	Chloroform	100	U
74-87-3	Chloromethane	100	U
95-49-8	2-Chlorotoluene	100	U
106-43-4	4-Chlorotoluene	100	U
96-12-8	1,2-Dibromo-3-chloropropane	100	U
106-93-4	1,2-Dibromoethane	100	U
74-95-3	Dibromomethane	100	U
95-50-1	1,2-Dichlorobenzene	100	U
541-73-1	1,3-Dichlorobenzene	100	U
106-46-7	1,4-Dichlorobenzene	100	U
75-71-8	Dichlorodifluoromethane	100	U
75-34-3	1,1-Dichloroethane	100	U
107-06-2	1,2-Dichloroethane	100	U
156-59-2	cis-1,2-Dichloroethene	110	
156-60-5	trans-1,2-Dichloroethene	50	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXRQ101 Date Extracted:10/17/00
Dilution factor: 20 Date Analyzed: 10/17/00
Moisture %:

QC Batch: 0292488

Client Sample Id: GW-E-13 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	210	
78-87-5	1,2-Dichloropropane	100	U
142-28-9	1,3-Dichloropropane	100	U
594-20-7	2,2-Dichloropropane	100	U
563-58-6	1,1-Dichloropropene	100	U
123-91-1	1,4-Dioxane	5000	U
100-41-4	Ethylbenzene	100	U
87-68-3	Hexachlorobutadiene	100	U
98-82-8	Isopropylbenzene	100	U
99-87-6	p-Isopropyltoluene	100	U
75-09-2	Methylene chloride	100	U
91-20-3	Naphthalene	100	U
103-65-1	n-Propylbenzene	100	U
100-42-5	Styrene	100	U
630-20-6	1,1,1,2-Tetrachloroethane	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
127-18-4	Tetrachloroethene	100	U
108-88-3	Toluene	100	U
87-61-6	1,2,3-Trichlorobenzene	100	U
120-82-1	1,2,4-Trichlorobenzene	100	U
71-55-6	1,1,1-Trichloroethane	500	
79-00-5	1,1,2-Trichloroethane	100	U
79-01-6	Trichloroethene	3300	
75-69-4	Trichlorofluoromethane	100	U
96-18-4	1,2,3-Trichloropropane	100	U
95-63-6	1,2,4-Trimethylbenzene	100	U
108-67-8	1,3,5-Trimethylbenzene	100	U
75-01-4	Vinyl chloride	40	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXRQ101 Date Extracted:10/17/00
Dilution factor: 20 Date Analyzed: 10/17/00
Moisture %:

QC Batch: 0292488

Client Sample Id: GW-E-13 (44-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	100	U
95-47-6	o-Xylene	50	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXRR101 Date Extracted:10/20/00
Dilution factor: 2 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-13 (48-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	10	U
108-86-1	Bromobenzene	10	U
74-97-5	Bromochloromethane	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Chlorodibromomethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	10	U
74-95-3	Dibromomethane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	9.2	
156-60-5	trans-1,2-Dichloroethene	5.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXRR101 Date Extracted:10/20/00
Dilution factor: 2 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-13 (48-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	17	
78-87-5	1,2-Dichloropropane	10	U
142-28-9	1,3-Dichloropropane	10	U
594-20-7	2,2-Dichloropropane	10	U
563-58-6	1,1-Dichloropropene	10	U
123-91-1	1,4-Dioxane	500	U
100-41-4	Ethylbenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
98-82-8	Isopropylbenzene	10	U
99-87-6	p-Isopropyltoluene	10	U
75-09-2	Methylene chloride	12	B
91-20-3	Naphthalene	10	U
103-65-1	n-Propylbenzene	10	U
100-42-5	Styrene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
71-55-6	1,1,1-Trichloroethane	50	
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	280	
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
75-01-4	Vinyl chloride	4.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXRR101 Date Extracted:10/20/00
Dilution factor: 2 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-13 (48-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	10	U
95-47-6	o-Xylene	5.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXRX101 Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-13 (56-60')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXRX101 Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-13 (56-60')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	12	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	12	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	140	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J110227 003

Sample WT/Vol: 5 / mL
Work Order: DLXRX101
Dilution factor: 1
Moisture %:

Date Received: 10/11/00
Date Extracted:10/20/00
Date Analyzed: 10/20/00

QC Batch: 0297363

Client Sample Id: GW-E-13 (56-60')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WQ Lab Sample ID:A0J110227 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXT5101 Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WQ Lab Sample ID:A0J110227 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXT5101 Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	14	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WQ Lab Sample ID:A0J110227 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXT5101 Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DLXT6101
Dilution factor: 1
Moisture %:

Date Received: 10/11/00
Date Extracted:10/20/00
Date Analyzed: 10/20/00

QC Batch: 0297363

Client Sample Id: GW-E-5 (54-58')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXT6101 Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-5 (54-58')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	14	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J110227 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/11/00
Work Order: DLXT6101 Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-5 (54-58')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C31AA Date Extracted:10/20/00
Dilution factor: 5 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (48-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	25	U
108-86-1	Bromobenzene	25	U
74-97-5	Bromochloromethane	25	U
75-27-4	Bromodichloromethane	25	U
75-25-2	Bromoform	25	U
74-83-9	Bromomethane	25	U
104-51-8	n-Butylbenzene	25	U
135-98-8	sec-Butylbenzene	25	U
98-06-6	tert-Butylbenzene	25	U
56-23-5	Carbon tetrachloride	25	U
108-90-7	Chlorobenzene	25	U
124-48-1	Chlorodibromomethane	25	U
75-00-3	Chloroethane	25	U
67-66-3	Chloroform	25	U
74-87-3	Chloromethane	25	U
95-49-8	2-Chlorotoluene	25	U
106-43-4	4-Chlorotoluene	25	U
96-12-8	1,2-Dibromo-3-chloropropane	25	U
106-93-4	1,2-Dibromoethane	25	U
74-95-3	Dibromomethane	25	U
95-50-1	1,2-Dichlorobenzene	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	25	U
75-71-8	Dichlorodifluoromethane	25	U
75-34-3	1,1-Dichloroethane	25	U
107-06-2	1,2-Dichloroethane	25	U
156-59-2	cis-1,2-Dichloroethene	13	
156-60-5	trans-1,2-Dichloroethene	12	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C31AA Date Extracted:10/20/00
Dilution factor: 5 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (48-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	25	U
78-87-5	1,2-Dichloropropane	25	U
142-28-9	1,3-Dichloropropane	25	U
594-20-7	2,2-Dichloropropane	25	U
563-58-6	1,1-Dichloropropene	25	U
123-91-1	1,4-Dioxane	1200	U
100-41-4	Ethylbenzene	25	U
87-68-3	Hexachlorobutadiene	25	U
98-82-8	Isopropylbenzene	25	U
99-87-6	p-Isopropyltoluene	25	U
75-09-2	Methylene chloride	39	B
91-20-3	Naphthalene	25	U
103-65-1	n-Propylbenzene	25	U
100-42-5	Styrene	25	U
630-20-6	1,1,1,2-Tetrachloroethane	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
127-18-4	Tetrachloroethene	25	U
108-88-3	Toluene	25	U
87-61-6	1,2,3-Trichlorobenzene	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U
71-55-6	1,1,1-Trichloroethane	53	
79-00-5	1,1,2-Trichloroethane	25	U
79-01-6	Trichloroethene	610	
75-69-4	Trichlorofluoromethane	25	U
96-18-4	1,2,3-Trichloropropane	25	U
95-63-6	1,2,4-Trimethylbenzene	25	U
108-67-8	1,3,5-Trimethylbenzene	25	U
75-01-4	Vinyl chloride	10	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C31AA Date Extracted:10/20/00
Dilution factor: 5 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (48-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	25	U
95-47-6	o-Xylene	12	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C61AA Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (54-58')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C61AA Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (54-58')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	13	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	87	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C61AA Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (54-58')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C71AA Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (61-65')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DM4C71AA
Dilution factor: 1
Moisture %:

Date Received: 10/13/00
Date Extracted:10/20/00
Date Analyzed: 10/20/00

QC Batch: 0297363

Client Sample Id: GW-E-15 (61-65')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	9.9	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	10	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C71AA Date Extracted:10/20/00
Dilution factor: 1 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (61-65')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number: 0J11227

Matrix: (soil/water) WQ Lab Sample ID: A0J130152 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4DE1AA Date Extracted: 10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WQ Lab Sample ID:A0J130152 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4DE1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	9.5	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WQ Lab Sample ID:A0J130152 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4DE1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WQ Lab Sample ID:A0J140112 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/14/00
Work Order: DM6MF1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WQ Lab Sample ID:A0J140112 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/14/00
Work Order: DM6MF1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	17	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WQ Lab Sample ID:A0J140112 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/14/00
Work Order: DM6MF1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC
MATRIX SPIKE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C31AC Date Extracted:10/20/00
Dilution factor: 5 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (48-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	250	
108-90-7	Chlorobenzene	270	
75-35-4	1,1-Dichloroethene	290	
108-88-3	Toluene	240	
79-01-6	Trichloroethene	840	

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J11227

Matrix: (soil/water) WG Lab Sample ID:A0J130152 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/13/00
Work Order: DM4C31AD Date Extracted:10/20/00
Dilution factor: 5 Date Analyzed: 10/20/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-E-15 (48-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	260	
108-90-7	Chlorobenzene	260	
75-35-4	1,1-Dichloroethene	290	
108-88-3	Toluene	240	
79-01-6	Trichloroethene	840	

Received 11/21/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING-LOUISVILLE

Lot #: A0J250216

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 18, 2000

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/24/00	Chain of Custody Number: 48915
Address: 3200 Town Point Drive NW	Telephone Number (Area Code)/Fax Number: (770) 421-3516 / (770) 421-3486	Lab Number:	Page 1 of
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: ThermoKing - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	1,4-Dioxane	Special Instructions/ Conditions of Receipt
GW-E-16 (40'-44')	10/13/00	0950	X						3					Analyze for Rhonda Quinn
GW-E-16 (50'-54')	10/13/00	1040	X						3					
GW-E-16 (57'-61')	10/13/00	1455	X						2					Screen samples for initial results and report to R. Quinn.
														GW-E-16 (57'-61') has only 2 vials due to low yields.

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: Christopher Kunkle Jr.	Date: 10/24/00	Time: 1200	1. Received By: [signature]	Date: 10/25/00	Time: 9:00
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J250216 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/25/00
Work Order: DNQNH1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-E-16 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	25	
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J250216 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/25/00
Work Order: DNQNH1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-E-16 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	14	
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	7.9	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J250216 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/25/00
Work Order: DNQNH1AA Date Extracted: 10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-E-16 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J250216 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/25/00
Work Order: DNQNN1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-E-16 (50'-54')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J250216 002

Sample WT/Vol: 5 / mL
Work Order: DNQNN1AA
Dilution factor: 1
Moisture %:

Date Received: 10/25/00
Date Extracted:10/26/00
Date Analyzed: 10/26/00

QC Batch: 0303138

Client Sample Id: GW-E-16 (50'-54')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	15	
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J250216 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/25/00
Work Order: DNQNN1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-E-16 (50'-54')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J250216 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/25/00
Work Order: DNQNR1AA Date Extracted:10/26/00
Dilution factor: 25 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-E-16 (57'-61')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	120	U
108-86-1	Bromobenzene	120	U
74-97-5	Bromochloromethane	120	U
75-27-4	Bromodichloromethane	120	U
75-25-2	Bromoform	120	U
74-83-9	Bromomethane	120	U
104-51-8	n-Butylbenzene	120	U
135-98-8	sec-Butylbenzene	120	U
98-06-6	tert-Butylbenzene	120	U
56-23-5	Carbon tetrachloride	120	U
108-90-7	Chlorobenzene	120	U
124-48-1	Chlorodibromomethane	120	U
75-00-3	Chloroethane	120	U
67-66-3	Chloroform	120	U
74-87-3	Chloromethane	120	U
95-49-8	2-Chlorotoluene	120	U
106-43-4	4-Chlorotoluene	120	U
96-12-8	1,2-Dibromo-3-chloropropane	120	U
106-93-4	1,2-Dibromoethane	120	U
74-95-3	Dibromomethane	120	U
95-50-1	1,2-Dichlorobenzene	120	U
541-73-1	1,3-Dichlorobenzene	120	U
106-46-7	1,4-Dichlorobenzene	120	U
75-71-8	Dichlorodifluoromethane	120	U
75-34-3	1,1-Dichloroethane	120	U
107-06-2	1,2-Dichloroethane	120	U
156-59-2	cis-1,2-Dichloroethene	62	U
156-60-5	trans-1,2-Dichloroethene	62	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J250216 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/25/00
Work Order: DNQNR1AA Date Extracted: 10/26/00
Dilution factor: 25 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-E-16 (57'-61')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	120	U
78-87-5	1,2-Dichloropropane	120	U
142-28-9	1,3-Dichloropropane	120	U
594-20-7	2,2-Dichloropropane	120	U
563-58-6	1,1-Dichloropropene	120	U
123-91-1	1,4-Dioxane	6200	U
100-41-4	Ethylbenzene	120	U
87-68-3	Hexachlorobutadiene	120	U
98-82-8	Isopropylbenzene	120	U
99-87-6	p-Isopropyltoluene	120	U
75-09-2	Methylene chloride	120	U
91-20-3	Naphthalene	120	U
103-65-1	n-Propylbenzene	120	U
100-42-5	Styrene	120	U
630-20-6	1,1,1,2-Tetrachloroethane	120	U
79-34-5	1,1,2,2-Tetrachloroethane	120	U
127-18-4	Tetrachloroethene	120	U
108-88-3	Toluene	120	U
87-61-6	1,2,3-Trichlorobenzene	120	U
120-82-1	1,2,4-Trichlorobenzene	120	U
71-55-6	1,1,1-Trichloroethane	120	U
79-00-5	1,1,2-Trichloroethane	120	U
79-01-6	Trichloroethene	120	U
75-69-4	Trichlorofluoromethane	120	U
96-18-4	1,2,3-Trichloropropane	120	U
95-63-6	1,2,4-Trimethylbenzene	120	U
108-67-8	1,3,5-Trimethylbenzene	120	U
75-01-4	Vinyl chloride	50	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J250216 003

Sample WT/Vol: 5 / mL
Work Order: DNQNR1AA
Dilution factor: 25
Moisture %:

Date Received: 10/25/00
Date Extracted:10/26/00
Date Analyzed: 10/26/00

QC Batch: 0303138

Client Sample Id: GW-E-16 (57'-61')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	120	U
95-47-6	o-Xylene	62	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J250216 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/25/00
Work Order: DNQNV1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J250216 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/25/00
Work Order: DNQNV1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	16	
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J250216 004

Sample WT/Vol: 5 / mL
Work Order: DNQNV1AA
Dilution factor: 1
Moisture %:

Date Received: 10/25/00
Date Extracted:10/26/00
Date Analyzed: 10/26/00

QC Batch: 0303138

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Received 11/21/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING LOUISVILLE

Lot #: A0J260183

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 18, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/25/00	Chain of Custody Number: 48953
Address: 3200 Town Point Dr NW	Telephone Number (Area Code)/Fax Number: (770) 421-3576 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	1,4-Dioxane	Special Instructions/ Conditions of Receipt
GW-E-19 (51'-55')	10/25/00	1000	X						3			✓	✓	Analyze samples as requested by Rhonda Quinn
GW-E-19 (59'-63')	10/25/00	1115	X						3			✓	✓	
GW-E-19 (40'-44')	10/25/00	1300	X						3			✓	✓	
EQB	10/25/00	1045	X						3			✓	✓	Screen samples and notify Rhonda Quinn of initial results.

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Christopher Francis Jr.	10/25/00	1506	1. Received By:	10/26/00	915
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

15

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J260183 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTHN1AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: GW-E-19 (51'-55')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J260183 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTHN1AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: GW-E-19 (51'-55')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	17	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J260183 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTHN1AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: GW-E-19 (51'-55')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J260183 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTH11AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: GW-E-19 (59'-63')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J260183 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTH11AA Date Extracted: 10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: GW-E-19 (59'-63')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	26	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J260183 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTH11AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: GW-E-19 (59'-63')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J260183 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTH41AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: GW-E-19 (70'-74')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J260183 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTH41AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: GW-E-19 (70'-74')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	18	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J260183 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTH41AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: GW-E-19 (70'-74')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J260183 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTJK1AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J260183 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTJK1AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	22	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J260183 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTJK1AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J260183 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTJM1AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J260183 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTJM1AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	15	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J260183 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/26/00
Work Order: DNTJM1AA Date Extracted:10/27/00
Dilution factor: 1 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0301556

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Received 11/15/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING-LOUISVILLE
SDG #: 0J18228

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 13, 2000

Chain of Custody Record

Quanterra

16

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/17/00	Chain of Custody Number: 48903
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: (770) 421-3576 / (770) 421-3486	Lab Number:	Page 1 of
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	Analysis: 1,4-Dioxane	Special Instructions/ Conditions of Receipt
GW-AOC 2-1 (42'-46')	10/17/00	1030	X						3			✓	✓	Analyze samples for Rhonda Quinn
~~GW-AOC 2-1~~	~~10/17/00~~		X						3			✓	✓	
~~GW-AOC 2-1~~	~~10/17/00~~		X						3			✓	✓	
GW-AOC 2-1 (0'-2')	10/17/00	1330			X	4						✓	✓	
GW-AOC 2-1 (18'-20')	10/17/00	1344			X	4						✓	✓	
GW-AOC 2-1 (38'-46')	10/17/00	1352			X	4						✓	✓	
Trip Blank			X			1						✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other

QC Requirements (Specify)

1. Relinquished By: [signature]	Date: 10/17/00	Time: 1500	1. Received By: [signature]	Date: 10-18-00	Time: 9:20
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/18/00	Chain of Custody Number: 48904
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: (770) 421-3516 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8260B	1,4-Dioxane	Special Instructions/ Conditions of Receipt
GW-AOC 2-1 (52'-56')	10/17/00	1720	X						3			✓	✓	Analyze samples for
GW-AOC 2-1 (62'-66')	10/17/00	1850	X			3						✓	✓	Rhonda Quinn
EQB	10/18/00	0825	X						3			✓	✓	
GW-AOC 10-1 (44'-48')	10/18/00	1015	X						3			✓	✓	GW-AOC 2-1 (62'-66')
GW-AOC 10-1 (52-56')	10/18/00	1415	X						3			✓	✓	has no preservative
GW-AOC 10-1 (60-64')	10/18/00	1450	X						3			✓	✓	
GW-AOC 8-1 (40-44')	10/18/00	1735	X						3			✓	✓	
GW-AOC 8-1 (49-53')	10/19/00	1045	X						3			✓	✓	
GW-AOC 8-1 (58-62')	10/19/00	1117	X						3			✓	✓	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	10/19/00	1321	1. Received By: [signature]	10/20/00	905
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

17

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J180228 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/18/00
Work Order: DNCWD1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-AOC 2-1 (42'-46')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J180228 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/18/00
Work Order: DNCWD1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-AOC 2-1 (42'-46')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	9.4	
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	6.3	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	14	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	41	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J180228 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/18/00
Work Order: DNCWD1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: GW-AOC 2-1 (42'-46')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WQ Lab Sample ID:A0J180228 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/18/00
Work Order: DNCWM1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WQ Lab Sample ID:A0J180228 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/18/00
Work Order: DNCWM1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	7.7	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WQ Lab Sample ID:A0J180228 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/18/00
Work Order: DNCWM1AA Date Extracted:10/21/00
Dilution factor: 1 Date Analyzed: 10/21/00
Moisture %:

QC Batch: 0297363

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5L1AA Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 2-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5L1AA Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 2-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5L1AA Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 2-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5N1AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: GW-AOC 2-1 (62'-66')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DNH5N1AA
Dilution factor: 1
Moisture %:

Date Received: 10/20/00
Date Extracted:10/23/00
Date Analyzed: 10/23/00

QC Batch: 0298669

Client Sample Id: GW-AOC 2-1 (62'-66')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	12	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	23	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5N1AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: GW-AOC 2-1 (62'-66')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5Q1AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5Q1AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	14	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5Q1AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5T1AA Date Extracted:10/24/00
Dilution factor: 33.33 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 10-1 (44'-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	170	U
108-86-1	Bromobenzene	170	U
74-97-5	Bromochloromethane	170	U
75-27-4	Bromodichloromethane	170	U
75-25-2	Bromoform	170	U
74-83-9	Bromomethane	170	U
104-51-8	n-Butylbenzene	170	U
135-98-8	sec-Butylbenzene	170	U
98-06-6	tert-Butylbenzene	170	U
56-23-5	Carbon tetrachloride	170	U
108-90-7	Chlorobenzene	170	U
124-48-1	Chlorodibromomethane	170	U
75-00-3	Chloroethane	170	U
67-66-3	Chloroform	170	U
74-87-3	Chloromethane	170	U
95-49-8	2-Chlorotoluene	170	U
106-43-4	4-Chlorotoluene	170	U
96-12-8	1,2-Dibromo-3-chloropropane	170	U
106-93-4	1,2-Dibromoethane	170	U
74-95-3	Dibromomethane	170	U
95-50-1	1,2-Dichlorobenzene	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
75-71-8	Dichlorodifluoromethane	170	U
75-34-3	1,1-Dichloroethane	170	U
107-06-2	1,2-Dichloroethane	170	U
156-59-2	cis-1,2-Dichloroethene	83	U
156-60-5	trans-1,2-Dichloroethene	83	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5T1AA Date Extracted:10/24/00
Dilution factor: 33.33 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 10-1 (44'-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	430	
78-87-5	1,2-Dichloropropane	170	U
142-28-9	1,3-Dichloropropane	170	U
594-20-7	2,2-Dichloropropane	170	U
563-58-6	1,1-Dichloropropene	170	U
123-91-1	1,4-Dioxane	8300	U
100-41-4	Ethylbenzene	170	U
87-68-3	Hexachlorobutadiene	170	U
98-82-8	Isopropylbenzene	170	U
99-87-6	p-Isopropyltoluene	170	U
75-09-2	Methylene chloride	170	U
91-20-3	Naphthalene	170	U
103-65-1	n-Propylbenzene	170	U
100-42-5	Styrene	170	U
630-20-6	1,1,1,2-Tetrachloroethane	170	U
79-34-5	1,1,2,2-Tetrachloroethane	170	U
127-18-4	Tetrachloroethene	170	U
108-88-3	Toluene	170	U
87-61-6	1,2,3-Trichlorobenzene	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
71-55-6	1,1,1-Trichloroethane	2700	
79-00-5	1,1,2-Trichloroethane	170	U
79-01-6	Trichloroethene	2000	
75-69-4	Trichlorofluoromethane	170	U
96-18-4	1,2,3-Trichloropropane	170	U
95-63-6	1,2,4-Trimethylbenzene	170	U
108-67-8	1,3,5-Trimethylbenzene	170	U
75-01-4	Vinyl chloride	67	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5T1AA Date Extracted:10/24/00
Dilution factor: 33.33 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 10-1 (44'-48')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	170	U
95-47-6	o-Xylene	83	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH511AA Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 10-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH511AA Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 10-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	9.4	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	27	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH511AA Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 10-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH521AA Date Extracted:10/24/00
Dilution factor: 2 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 10-1 (60'-64')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	10	U
108-86-1	Bromobenzene	10	U
74-97-5	Bromochloromethane	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Chlorodibromomethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	10	U
74-95-3	Dibromomethane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	11	
156-60-5	trans-1,2-Dichloroethene	5.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH521AA Date Extracted:10/24/00
Dilution factor: 2 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 10-1 (60'-64')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	19	
78-87-5	1,2-Dichloropropane	10	U
142-28-9	1,3-Dichloropropane	10	U
594-20-7	2,2-Dichloropropane	10	U
563-58-6	1,1-Dichloropropene	10	U
123-91-1	1,4-Dioxane	500	U
100-41-4	Ethylbenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
98-82-8	Isopropylbenzene	10	U
99-87-6	p-Isopropyltoluene	10	U
75-09-2	Methylene chloride	10	U
91-20-3	Naphthalene	10	U
103-65-1	n-Propylbenzene	10	U
100-42-5	Styrene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
71-55-6	1,1,1-Trichloroethane	77	
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	260	
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
75-01-4	Vinyl chloride	4.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH521AA Date Extracted:10/24/00
Dilution factor: 2 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 10-1 (60'-64')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	10	U
95-47-6	o-Xylene	5.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH541AA Date Extracted:10/24/00
Dilution factor: 100 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 8-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	500	U
108-86-1	Bromobenzene	500	U
74-97-5	Bromochloromethane	500	U
75-27-4	Bromodichloromethane	500	U
75-25-2	Bromoform	500	U
74-83-9	Bromomethane	500	U
104-51-8	n-Butylbenzene	500	U
135-98-8	sec-Butylbenzene	500	U
98-06-6	tert-Butylbenzene	500	U
56-23-5	Carbon tetrachloride	500	U
108-90-7	Chlorobenzene	500	U
124-48-1	Chlorodibromomethane	500	U
75-00-3	Chloroethane	500	U
67-66-3	Chloroform	500	U
74-87-3	Chloromethane	500	U
95-49-8	2-Chlorotoluene	500	U
106-43-4	4-Chlorotoluene	500	U
96-12-8	1,2-Dibromo-3-chloropropane	500	U
106-93-4	1,2-Dibromoethane	500	U
74-95-3	Dibromomethane	500	U
95-50-1	1,2-Dichlorobenzene	500	U
541-73-1	1,3-Dichlorobenzene	500	U
106-46-7	1,4-Dichlorobenzene	500	U
75-71-8	Dichlorodifluoromethane	500	U
75-34-3	1,1-Dichloroethane	500	U
107-06-2	1,2-Dichloroethane	500	U
156-59-2	cis-1,2-Dichloroethene	300	
156-60-5	trans-1,2-Dichloroethene	250	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH541AA Date Extracted:10/24/00
Dilution factor: 100 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 8-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	790	
78-87-5	1,2-Dichloropropane	500	U
142-28-9	1,3-Dichloropropane	500	U
594-20-7	2,2-Dichloropropane	500	U
563-58-6	1,1-Dichloropropene	500	U
123-91-1	1,4-Dioxane	25000	U
100-41-4	Ethylbenzene	500	U
87-68-3	Hexachlorobutadiene	500	U
98-82-8	Isopropylbenzene	500	U
99-87-6	p-Isopropyltoluene	500	U
75-09-2	Methylene chloride	500	U
91-20-3	Naphthalene	500	U
103-65-1	n-Propylbenzene	500	U
100-42-5	Styrene	500	U
630-20-6	1,1,1,2-Tetrachloroethane	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
127-18-4	Tetrachloroethene	500	U
108-88-3	Toluene	500	U
87-61-6	1,2,3-Trichlorobenzene	500	U
120-82-1	1,2,4-Trichlorobenzene	500	U
71-55-6	1,1,1-Trichloroethane	3800	
79-00-5	1,1,2-Trichloroethane	500	U
79-01-6	Trichloroethene	8600	
75-69-4	Trichlorofluoromethane	500	U
96-18-4	1,2,3-Trichloropropane	500	U
95-63-6	1,2,4-Trimethylbenzene	500	U
108-67-8	1,3,5-Trimethylbenzene	500	U
75-01-4	Vinyl chloride	200	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH541AA Date Extracted:10/24/00
Dilution factor: 100 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 8-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	500	U
95-47-6	o-Xylene	250	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH551AA Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 8-1 (49'-53')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH551AA Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 8-1 (49'-53')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	6.4	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	23	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH551AA Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 8-1 (49'-53')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH581AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: GW-AOC 8-1 (58';62')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH581AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: GW-AOC 8-1 (58'-62')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	11	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	8.6	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	28	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH581AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: GW-AOC 8-1 (58'-62')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WQ Lab Sample ID:A0J200233 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH591AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WQ Lab Sample ID:A0J200233 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH591AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	13	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WQ Lab Sample ID:A0J200233 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH591AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC
MATRIX SPIKE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5L1AC Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 2-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	47	
108-90-7	Chlorobenzene	47	
75-35-4	1,1-Dichloroethene	50	
108-88-3	Toluene	43	
79-01-6	Trichloroethene	52	

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH5L1AD Date Extracted:10/24/00
Dilution factor: 1 Date Analyzed: 10/24/00
Moisture %:

QC Batch: 0299461

Client Sample Id: GW-AOC 2-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	48	
108-90-7	Chlorobenzene	50	
75-35-4	1,1-Dichloroethene	49	
108-88-3	Toluene	45	
79-01-6	Trichloroethene	54	

LAW ENVIRONMENTAL INC
MATRIX SPIKE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH581AC Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: GW-AOC 8-1 (58'-62')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	50	
108-90-7	Chlorobenzene	52	
75-35-4	1,1-Dichloroethene	56	
108-88-3	Toluene	48	
79-01-6	Trichloroethene	76	

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J18228

Matrix: (soil/water) WG Lab Sample ID:A0J200233 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/20/00
Work Order: DNH581AD Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: GW-AOC 8-1 (58'-62')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	52	
108-90-7	Chlorobenzene	55	
75-35-4	1,1-Dichloroethene	59	
108-88-3	Toluene	50	
79-01-6	Trichloroethene	78	

Received 11/15/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0J210135

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 13, 2000

Chain of Custody Record

Quanterra

17

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
LAW	Rhonda Quinn	10/20/00	48911
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 2
3200 Town Point Dr Suite 100	(770)421-3516 / (770)421-3486	(330)497-9396	
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144		Becky Strait	
Project Name	**Carrier/Waybill Number**		
TK Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
SD-AOC-9-1(0-2)	10/19/00	1820			✓	4							Analyze for Rhonda Quinn
SD-AOC-9-1 (4-6)	10/19/00	1840			✓	4							
SD-AOC-9-1(34-36)	10/19/00	1900			✓	4							
SD-AOC-9-2(0-2)	10/20/00	1105			✓	4							
SD-AOC-9-2(4-6)	10/20/00	1125			✓	4							
SD-AOC-9-2(32-34)	10/20/00	1200			✓	4							
GW-AOC-8-2(42-46)	10/19/00	1400	✓						3				
GW-AOC-8-2(50-54)	10/19/00	1510	✓						3				
GW-AOC-8-2(56-60)	10/19/00	1612	✓						3				
GW-AOC-9-2(44-48)	10/20/00	1140	✓						3				
GW-AOC-9-2(50-54)	10/20/00	1210	✓						3				
GW-AOC-9-2(58-62)	10/20/00	1325	✓						3				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Erica M. McCray	10/20/00	1420	1. Received By: Anne Sanders	10-21-00	925
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/20/00	Chain of Custody Number: 48912
Address: 3200 TOWN POINT Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770)421-3516/(770)421-3486	Lab Number:	Page 2 of 2
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
Duplicate	10/19/00		✓						3				Analyze for Rhonda Quinn

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Erica McCray	10/20/00	1420	1. Received By: Anne Sanders	10-21-00	925
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

[redacted]

Chain of Custody Record

Quanterra

19

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/20/00	Chain of Custody Number: 48913
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: (770)421-3516 / (770)421-3486	Lab Number: (30)417-9396	Page ____ of ____
City: Kennesaw. State: GA Zip Code: 30144	Site Contact	Lab Contact: Becky Strait	Analysis (Attach list if more space is needed)
Project Name: TK Louisville	Carrier/Waybill Number		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	VOCs 8260B	1-4 Diovane	
GW-AOC-9-1 (40-44)	10/19/00	1810	✓						3			✓	1	Analyze for Rhonda Quinn
GW-AOC-9-1 (50-54)	10/20/00	1420	✓						3			1	1	
GW-AOC-9-1 (58-62)	10/20/00	1445	✓						3			1	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Erica McCrary	10/20/00	1850	1. Received By: [signature]	10/21/00	925
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE01AA Date Extracted:10/27/00
Dilution factor: 50 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(42-46)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	250	U
108-86-1	Bromobenzene	250	U
74-97-5	Bromochloromethane	250	U
75-27-4	Bromodichloromethane	250	U
75-25-2	Bromoform	250	U
74-83-9	Bromomethane	250	U
104-51-8	n-Butylbenzene	250	U
135-98-8	sec-Butylbenzene	250	U
98-06-6	tert-Butylbenzene	250	U
56-23-5	Carbon tetrachloride	250	U
108-90-7	Chlorobenzene	250	U
124-48-1	Chlorodibromomethane	250	U
75-00-3	Chloroethane	250	U
67-66-3	Chloroform	250	U
74-87-3	Chloromethane	250	U
95-49-8	2-Chlorotoluene	250	U
106-43-4	4-Chlorotoluene	250	U
96-12-8	1,2-Dibromo-3-chloropropane	250	U
106-93-4	1,2-Dibromoethane	250	U
74-95-3	Dibromomethane	250	U
95-50-1	1,2-Dichlorobenzene	250	U
541-73-1	1,3-Dichlorobenzene	250	U
106-46-7	1,4-Dichlorobenzene	250	U
75-71-8	Dichlorodifluoromethane	250	U
75-34-3	1,1-Dichloroethane	250	U
107-06-2	1,2-Dichloroethane	250	U
156-59-2	cis-1,2-Dichloroethene	230	
156-60-5	trans-1,2-Dichloroethene	120	U

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J210135 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DNKE01AA
Dilution factor: 50
Moisture %:

Date Received: 10/21/00
Date Extracted: 10/27/00
Date Analyzed: 10/27/00

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(42-46)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	1300	
78-87-5	1,2-Dichloropropane	250	U
142-28-9	1,3-Dichloropropane	250	U
594-20-7	2,2-Dichloropropane	250	U
563-58-6	1,1-Dichloropropene	250	U
123-91-1	1,4-Dioxane	12000	U
100-41-4	Ethylbenzene	250	U
87-68-3	Hexachlorobutadiene	250	U
98-82-8	Isopropylbenzene	250	U
99-87-6	p-Isopropyltoluene	250	U
75-09-2	Methylene chloride	840	
91-20-3	Naphthalene	250	U
103-65-1	n-Propylbenzene	250	U
100-42-5	Styrene	250	U
630-20-6	1,1,1,2-Tetrachloroethane	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
127-18-4	Tetrachloroethene	250	U
108-88-3	Toluene	250	U
87-61-6	1,2,3-Trichlorobenzene	250	U
120-82-1	1,2,4-Trichlorobenzene	250	U
71-55-6	1,1,1-Trichloroethane	8000	
79-00-5	1,1,2-Trichloroethane	250	U
79-01-6	Trichloroethene	6000	
75-69-4	Trichlorofluoromethane	250	U
96-18-4	1,2,3-Trichloropropane	250	U
95-63-6	1,2,4-Trimethylbenzene	250	U
108-67-8	1,3,5-Trimethylbenzene	250	U
75-01-4	Vinyl chloride	100	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J210135 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE01AA Date Extracted: 10/27/00
Dilution factor: 50 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(42-46)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	250	U
95-47-6	o-Xylene	120	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE41AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	9.9	
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE41AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	9.2	
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	55	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	170	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE41AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J210135 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE61AA Date Extracted: 10/26/00
Dilution factor: 3.33 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(56-60)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	17	U
108-86-1	Bromobenzene	17	U
74-97-5	Bromochloromethane	17	U
75-27-4	Bromodichloromethane	17	U
75-25-2	Bromoform	17	U
74-83-9	Bromomethane	17	U
104-51-8	n-Butylbenzene	17	U
135-98-8	sec-Butylbenzene	17	U
98-06-6	tert-Butylbenzene	17	U
56-23-5	Carbon tetrachloride	17	U
108-90-7	Chlorobenzene	17	U
124-48-1	Chlorodibromomethane	17	U
75-00-3	Chloroethane	17	U
67-66-3	Chloroform	17	U
74-87-3	Chloromethane	17	U
95-49-8	2-Chlorotoluene	17	U
106-43-4	4-Chlorotoluene	17	U
96-12-8	1,2-Dibromo-3-chloropropane	17	U
106-93-4	1,2-Dibromoethane	17	U
74-95-3	Dibromomethane	17	U
95-50-1	1,2-Dichlorobenzene	17	U
541-73-1	1,3-Dichlorobenzene	17	U
106-46-7	1,4-Dichlorobenzene	17	U
75-71-8	Dichlorodifluoromethane	17	U
75-34-3	1,1-Dichloroethane	17	U
107-06-2	1,2-Dichloroethane	17	U
156-59-2	cis-1,2-Dichloroethene	20	
156-60-5	trans-1,2-Dichloroethene	8.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE61AA Date Extracted:10/26/00
Dilution factor: 3.33 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(56-60)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	29	
78-87-5	1,2-Dichloropropane	17	U
142-28-9	1,3-Dichloropropane	17	U
594-20-7	2,2-Dichloropropane	17	U
563-58-6	1,1-Dichloropropene	17	U
123-91-1	1,4-Dioxane	830	U
100-41-4	Ethylbenzene	17	U
87-68-3	Hexachlorobutadiene	17	U
98-82-8	Isopropylbenzene	17	U
99-87-6	p-Isopropyltoluene	17	U
75-09-2	Methylene chloride	17	U
91-20-3	Naphthalene	17	U
103-65-1	n-Propylbenzene	17	U
100-42-5	Styrene	17	U
630-20-6	1,1,1,2-Tetrachloroethane	17	U
79-34-5	1,1,2,2-Tetrachloroethane	17	U
127-18-4	Tetrachloroethene	17	U
108-88-3	Toluene	17	U
87-61-6	1,2,3-Trichlorobenzene	17	U
120-82-1	1,2,4-Trichlorobenzene	17	U
71-55-6	1,1,1-Trichloroethane	94	
79-00-5	1,1,2-Trichloroethane	17	U
79-01-6	Trichloroethene	420	
75-69-4	Trichlorofluoromethane	17	U
96-18-4	1,2,3-Trichloropropane	17	U
95-63-6	1,2,4-Trimethylbenzene	17	U
108-67-8	1,3,5-Trimethylbenzene	17	U
75-01-4	Vinyl chloride	6.7	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE61AA Date Extracted:10/26/00
Dilution factor: 3.33 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(56-60)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	17	U
95-47-6	o-Xylene	8.3	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE71AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-2(44-48)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE71AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-2(44-48)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J210135 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE71AA Date Extracted: 10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-2(44-48)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKFG1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-2(50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKFG1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-2(50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.9	
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKFG1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-2(50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J210135 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKFN1AA Date Extracted: 10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-2(58-62)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J210135 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKFN1AA Date Extracted: 10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-2(58-62)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	11	
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKFN1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-2(58-62)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 013
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKFV1AA Date Extracted:10/26/00
Dilution factor: 50 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: DUPLICATE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	250	U
108-86-1	Bromobenzene	250	U
74-97-5	Bromochloromethane	250	U
75-27-4	Bromodichloromethane	250	U
75-25-2	Bromoform	250	U
74-83-9	Bromomethane	250	U
104-51-8	n-Butylbenzene	250	U
135-98-8	sec-Butylbenzene	250	U
98-06-6	tert-Butylbenzene	250	U
56-23-5	Carbon tetrachloride	250	U
108-90-7	Chlorobenzene	250	U
124-48-1	Chlorodibromomethane	250	U
75-00-3	Chloroethane	250	U
67-66-3	Chloroform	250	U
74-87-3	Chloromethane	250	U
95-49-8	2-Chlorotoluene	250	U
106-43-4	4-Chlorotoluene	250	U
96-12-8	1,2-Dibromo-3-chloropropane	250	U
106-93-4	1,2-Dibromoethane	250	U
74-95-3	Dibromomethane	250	U
95-50-1	1,2-Dichlorobenzene	250	U
541-73-1	1,3-Dichlorobenzene	250	U
106-46-7	1,4-Dichlorobenzene	250	U
75-71-8	Dichlorodifluoromethane	250	U
75-34-3	1,1-Dichloroethane	250	U
107-06-2	1,2-Dichloroethane	250	U
156-59-2	cis-1,2-Dichloroethene	190	
156-60-5	trans-1,2-Dichloroethene	120	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 013
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKFV1AA Date Extracted:10/26/00
Dilution factor: 50 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: DUPLICATE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	1100	
78-87-5	1,2-Dichloropropane	250	U
142-28-9	1,3-Dichloropropane	250	U
594-20-7	2,2-Dichloropropane	250	U
563-58-6	1,1-Dichloropropene	250	U
123-91-1	1,4-Dioxane	12000	U
100-41-4	Ethylbenzene	250	U
87-68-3	Hexachlorobutadiene	250	U
98-82-8	Isopropylbenzene	250	U
99-87-6	p-Isopropyltoluene	250	U
75-09-2	Methylene chloride	250	U
91-20-3	Naphthalene	250	U
103-65-1	n-Propylbenzene	250	U
100-42-5	Styrene	250	U
630-20-6	1,1,1,2-Tetrachloroethane	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
127-18-4	Tetrachloroethene	250	U
108-88-3	Toluene	250	U
87-61-6	1,2,3-Trichlorobenzene	250	U
120-82-1	1,2,4-Trichlorobenzene	250	U
71-55-6	1,1,1-Trichloroethane	6000	
79-00-5	1,1,2-Trichloroethane	250	U
79-01-6	Trichloroethene	3200	
75-69-4	Trichlorofluoromethane	250	U
96-18-4	1,2,3-Trichloropropane	250	U
95-63-6	1,2,4-Trimethylbenzene	250	U
108-67-8	1,3,5-Trimethylbenzene	250	U
75-01-4	Vinyl chloride	100	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 013
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKFV1AA Date Extracted:10/26/00
Dilution factor: 50 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: DUPLICATE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	250	U
95-47-6	o-Xylene	120	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID: A0J210135 014
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKG31AA Date Extracted: 10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: TRIP BLANK (COC 48911/48912)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J210135 014
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKG31AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: TRIP BLANK (COC 48911/48912)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	23	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J210135 014
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKG31AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: TRIP BLANK (COC 48911/48912)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 015
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKML1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-1(40-44)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 015
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKML1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-1(40-44)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	13	
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 015
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKML1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-1(40-44)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 016
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKMR1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-1(50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 016
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKMR1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-1(50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	15	
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 016
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKMR1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-1(50-54)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J210135 017
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKMV1AA Date Extracted: 10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-1(58-62)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 017
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKMV1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-1(58-62)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	15	
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	6.8	
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J210135 017
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKMV1AA Date Extracted:10/26/00
Dilution factor: 1 Date Analyzed: 10/26/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-9-1(58-62)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J210135 018
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKMW1AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: TRIP BLANK (COC 48913)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J210135 018
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKMW1AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: TRIP BLANK (COC 48913)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	13	B
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J210135 018
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKMW1AA Date Extracted:10/23/00
Dilution factor: 1 Date Analyzed: 10/23/00
Moisture %:

QC Batch: 0298669

Client Sample Id: TRIP BLANK (COC 48913)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J210135 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/21/00
Work Order: DNKE61AC Date Extracted: 10/27/00
Dilution factor: 3.33 Date Analyzed: 10/27/00
Moisture %:

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(56-60)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	160	
108-90-7	Chlorobenzene	160	
75-35-4	1,1-Dichloroethene	200	
108-88-3	Toluene	150	
79-01-6	Trichloroethene	570	

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J210135 009

Sample WT/Vol: 5 / mL
Work Order: DNKE61AD
Dilution factor: 3.33
Moisture %:

Date Received: 10/21/00
Date Extracted:10/27/00
Date Analyzed: 10/27/00

QC Batch: 0303138

Client Sample Id: GW-AOC-8-2(56-60)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	160	
108-90-7	Chlorobenzene	170	
75-35-4	1,1-Dichloroethene	190	
108-88-3	Toluene	150	
79-01-6	Trichloroethene	560	

Received 11/21/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

TK LOUISVILLE

Lot #: A0J270167

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 18, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 10/26/00	Chain of Custody Number: 49219
Address: 3200 Town Point Dr. NW	Telephone Number (Area Code)/Fax Number: (770) 421-3516 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8260B	1,4-Dioxane	Special Instructions/ Conditions of Receipt
GW-E-18 (51'-55')	10/25/00	1543	X						3			✓	✓	Analyze samples
GW-E-18 (60'-64')	10/25/00	1625	X						3			✓	✓	as requested by
GW-E-18 ~~(70'-74')~~ (68'-72')	10/25/00	1745	X						3			✓	✓	Rhonda Quinn
GW-E-17 (48'-52')	10/26/00	0940	X						3			✓	✓	
GW-E-17 (55'-59')	10/26/00	1240	X						3			✓	✓	Provide Rhonda
GW-E-17 (62-66')	10/26/00	1155	X						3			✓	✓	Quinn with initial
														screening results.

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other ____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Christopher Kowalski Jr.	10/26/00	1415	1. Received By: [signature]	10/27/00	910
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

13

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J270167 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXLW1AA Date Extracted:11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-18 (51'-55')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J270167 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DNXLW1AA
Dilution factor: 1
Moisture %:

Date Received: 10/27/00
Date Extracted: 11/02/00
Date Analyzed: 11/02/00

QC Batch: 0309091

Client Sample Id: GW-E-18 (51'-55')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J270167 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXLW1AA Date Extracted: 11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-18 (51'-55')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J270167 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXLX1AA Date Extracted:11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-18 (60'-64')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J270167 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXLX1AA Date Extracted:11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-18 (60'-64')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J270167 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXLX1AA Date Extracted: 11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-18 (60'-64')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J270167 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL01AA Date Extracted: 11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-18 (68'-72')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J270167 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL01AA Date Extracted: 11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-18 (68'-72')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J270167 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DNXL01AA
Dilution factor: 1
Moisture %:

Date Received: 10/27/00
Date Extracted: 11/02/00
Date Analyzed: 11/02/00

QC Batch: 0309091

Client Sample Id: GW-E-18 (68'-72')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J270167 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL11AA Date Extracted:11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-17 (48'-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J270167 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL11AA Date Extracted:11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-17 (48'-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J270167 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL11AA Date Extracted: 11/02/00
Dilution factor: 1 Date Analyzed: 11/02/00
Moisture %:

QC Batch: 0309091

Client Sample Id: GW-E-17 (48'-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J270167 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL21AA Date Extracted:11/06/00
Dilution factor: 1 Date Analyzed: 11/06/00
Moisture %:

QC Batch: 0312508

Client Sample Id: GW-E-17 (55'-59')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J270167 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL21AA Date Extracted: 11/06/00
Dilution factor: 1 Date Analyzed: 11/06/00
Moisture %:

QC Batch: 0312508

Client Sample Id: GW-E-17 (55'-59')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J270167 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL21AA Date Extracted:11/06/00
Dilution factor: 1 Date Analyzed: 11/06/00
Moisture %:

QC Batch: 0312508

Client Sample Id: GW-E-17 (55'-59')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J270167 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL31AA Date Extracted:11/06/00
Dilution factor: 1 Date Analyzed: 11/06/00
Moisture %:

QC Batch: 0312508

Client Sample Id: GW-E-17 (62'-66')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0J270167 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL31AA Date Extracted:11/06/00
Dilution factor: 1 Date Analyzed: 11/06/00
Moisture %:

QC Batch: 0312508

Client Sample Id: GW-E-17 (62'-66')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0J270167 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL31AA Date Extracted: 11/06/00
Dilution factor: 1 Date Analyzed: 11/06/00
Moisture %:

QC Batch: 0312508

Client Sample Id: GW-E-17 (62'-66')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J270167 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL41AA Date Extracted:11/06/00
Dilution factor: 1 Date Analyzed: 11/06/00
Moisture %:

QC Batch: 0312508

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID: A0J270167 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL41AA Date Extracted: 11/06/00
Dilution factor: 1 Date Analyzed: 11/06/00
Moisture %:

QC Batch: 0312508

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0J270167 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/27/00
Work Order: DNXL41AA Date Extracted:11/06/00
Dilution factor: 1 Date Analyzed: 11/06/00
Moisture %:

QC Batch: 0312508

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0K030150 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9941AA Date Extracted: 11/13/00
Dilution factor: 33.33 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0318486

Client Sample Id: GW-AOC 3-1 (50'-54')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	170	U
71-43-2	Benzene	170	U
108-86-1	Bromobenzene	170	U
74-97-5	Bromochloromethane	170	U
75-27-4	Bromodichloromethane	170	U
75-25-2	Bromoform	170	U
74-83-9	Bromomethane	170	U
104-51-8	n-Butylbenzene	170	U
135-98-8	sec-Butylbenzene	170	U
98-06-6	tert-Butylbenzene	170	U
56-23-5	Carbon tetrachloride	170	U
108-90-7	Chlorobenzene	170	U
124-48-1	Chlorodibromomethane	170	U
75-00-3	Chloroethane	170	U
67-66-3	Chloroform	170	U
74-87-3	Chloromethane	170	U
95-49-8	2-Chlorotoluene	170	U
106-43-4	4-Chlorotoluene	170	U
96-12-8	1,2-Dibromo-3-chloropropane	170	U
106-93-4	1,2-Dibromoethane	170	U
74-95-3	Dibromomethane	170	U
95-50-1	1,2-Dichlorobenzene	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
75-71-8	Dichlorodifluoromethane	170	U
75-34-3	1,1-Dichloroethane	170	U
107-06-2	1,2-Dichloroethane	170	U
156-59-2	**cis-1,2-Dichloroethene**	**100**	

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0K030150 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9941AA Date Extracted: 11/13/00
Dilution factor: 33.33 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0318486

Client Sample Id: GW-AOC 3-1 (50'-54')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	83	U
75-35-4	**1,1-Dichloroethene**	**530**	
78-87-5	1,2-Dichloropropane	170	U
142-28-9	1,3-Dichloropropane	170	U
594-20-7	2,2-Dichloropropane	170	U
563-58-6	1,1-Dichloropropene	170	U
123-91-1	1,4-Dioxane	8300	U
100-41-4	Ethylbenzene	170	U
87-68-3	Hexachlorobutadiene	170	U
98-82-8	Isopropylbenzene	170	U
99-87-6	p-Isopropyltoluene	170	U
75-09-2	Methylene chloride	170	U
91-20-3	Naphthalene	170	U
103-65-1	n-Propylbenzene	170	U
630-20-6	1,1,1,2-Tetrachloroethane	170	U
79-34-5	1,1,2,2-Tetrachloroethane	170	U
127-18-4	Tetrachloroethene	170	U
108-88-3	Toluene	170	U
87-61-6	1,2,3-Trichlorobenzene	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
71-55-6	**1,1,1-Trichloroethane**	**1500**	
79-00-5	1,1,2-Trichloroethane	170	U
79-01-6	**Trichloroethene**	**6300**	
75-69-4	Trichlorofluoromethane	170	U
96-18-4	1,2,3-Trichloropropane	170	U
95-63-6	1,2,4-Trimethylbenzene	170	U
108-67-8	1,3,5-Trimethylbenzene	170	U
75-01-4	Vinyl chloride	67	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0K030150 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9941AA Date Extracted: 11/13/00
Dilution factor: 33.33 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0318486

Client Sample Id: GW-AOC 3-1 (50'-54')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	170	U
95-47-6	o-Xylene	83	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K030150 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9961AA Date Extracted:11/13/00
Dilution factor: 20 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0318486

Client Sample Id: GW-AOC 3-1 (55'-59')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	100	U
71-43-2	Benzene	100	U
108-86-1	Bromobenzene	100	U
74-97-5	Bromochloromethane	100	U
75-27-4	Bromodichloromethane	100	U
75-25-2	Bromoform	100	U
74-83-9	Bromomethane	100	U
104-51-8	n-Butylbenzene	100	U
135-98-8	sec-Butylbenzene	100	U
98-06-6	tert-Butylbenzene	100	U
56-23-5	Carbon tetrachloride	100	U
108-90-7	Chlorobenzene	100	U
124-48-1	Chlorodibromomethane	100	U
75-00-3	Chloroethane	100	U
67-66-3	Chloroform	100	U
74-87-3	Chloromethane	100	U
95-49-8	2-Chlorotoluene	100	U
106-43-4	4-Chlorotoluene	100	U
96-12-8	1,2-Dibromo-3-chloropropane	100	U
106-93-4	1,2-Dibromoethane	100	U
74-95-3	Dibromomethane	100	U
95-50-1	1,2-Dichlorobenzene	100	U
541-73-1	1,3-Dichlorobenzene	100	U
106-46-7	1,4-Dichlorobenzene	100	U
75-71-8	Dichlorodifluoromethane	100	U
75-34-3	1,1-Dichloroethane	100	U
107-06-2	1,2-Dichloroethane	100	U
156-59-2	cis-1,2-Dichloroethene	32	J

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K030150 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9961AA Date Extracted:11/13/00
Dilution factor: 20 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0318486

Client Sample Id: GW-AOC 3-1 (55'-59')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	50	U
75-35-4	**1,1-Dichloroethene**	**200**	
78-87-5	1,2-Dichloropropane	100	U
142-28-9	1,3-Dichloropropane	100	U
594-20-7	2,2-Dichloropropane	100	U
563-58-6	1,1-Dichloropropene	100	U
123-91-1	1,4-Dioxane	5000	U
100-41-4	Ethylbenzene	100	U
87-68-3	Hexachlorobutadiene	100	U
98-82-8	Isopropylbenzene	100	U
99-87-6	p-Isopropyltoluene	100	U
75-09-2	Methylene chloride	100	U
91-20-3	Naphthalene	100	U
103-65-1	n-Propylbenzene	100	U
630-20-6	1,1,1,2-Tetrachloroethane	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
127-18-4	Tetrachloroethene	100	U
108-88-3	Toluene	100	U
87-61-6	1,2,3-Trichlorobenzene	100	U
120-82-1	1,2,4-Trichlorobenzene	100	U
71-55-6	**1,1,1-Trichloroethane**	**550**	
79-00-5	1,1,2-Trichloroethane	100	U
79-01-6	**Trichloroethene**	**2200**	
75-69-4	Trichlorofluoromethane	100	U
96-18-4	1,2,3-Trichloropropane	100	U
95-63-6	1,2,4-Trimethylbenzene	100	U
108-67-8	1,3,5-Trimethylbenzene	100	U
75-01-4	Vinyl chloride	40	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K030150 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9961AA Date Extracted:11/13/00
Dilution factor: 20 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0318486

Client Sample Id: GW-AOC 3-1 (55'-59')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	100	U
95-47-6	o-Xylene	50	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K030150 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9971AA Date Extracted:11/13/00
Dilution factor: 100 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: DUPE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	500	U
71-43-2	Benzene	500	U
108-86-1	Bromobenzene	500	U
74-97-5	Bromochloromethane	500	U
75-27-4	Bromodichloromethane	500	U
75-25-2	Bromoform	500	U
74-83-9	Bromomethane	500	U
104-51-8	n-Butylbenzene	500	U
135-98-8	sec-Butylbenzene	500	U
98-06-6	tert-Butylbenzene	500	U
56-23-5	Carbon tetrachloride	500	U
108-90-7	Chlorobenzene	500	U
124-48-1	Chlorodibromomethane	500	U
75-00-3	Chloroethane	500	U
67-66-3	Chloroform	500	U
74-87-3	Chloromethane	500	U
95-49-8	2-Chlorotoluene	500	U
106-43-4	4-Chlorotoluene	500	U
96-12-8	1,2-Dibromo-3-chloropropane	500	U
106-93-4	1,2-Dibromoethane	500	U
74-95-3	Dibromomethane	500	U
95-50-1	1,2-Dichlorobenzene	500	U
541-73-1	1,3-Dichlorobenzene	500	U
106-46-7	1,4-Dichlorobenzene	500	U
75-71-8	Dichlorodifluoromethane	500	U
75-34-3	1,1-Dichloroethane	500	U
107-06-2	1,2-Dichloroethane	500	U
156-59-2	cis-1,2-Dichloroethene	250	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID: A0K030150 003

Sample WT/Vol: 5 / mL
Work Order: DN9971AA
Dilution factor: 100
Moisture %:

Date Received: 11/03/00
Date Extracted: 11/13/00
Date Analyzed: 11/13/00

QC Batch: 0319486

Client Sample Id: DUPE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	250	U
75-35-4	**1,1-Dichloroethene**	**890**	
78-87-5	1,2-Dichloropropane	500	U
142-28-9	1,3-Dichloropropane	500	U
594-20-7	2,2-Dichloropropane	500	U
563-58-6	1,1-Dichloropropene	500	U
123-91-1	1,4-Dioxane	25000	U
100-41-4	Ethylbenzene	500	U
87-68-3	Hexachlorobutadiene	500	U
98-82-8	Isopropylbenzene	500	U
99-87-6	p-Isopropyltoluene	500	U
75-09-2	Methylene chloride	500	U
91-20-3	Naphthalene	500	U
103-65-1	n-Propylbenzene	500	U
630-20-6	1,1,1,2-Tetrachloroethane	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
127-18-4	Tetrachloroethene	500	U
108-88-3	Toluene	500	U
87-61-6	1,2,3-Trichlorobenzene	500	U
120-82-1	1,2,4-Trichlorobenzene	500	U
71-55-6	**1,1,1-Trichloroethane**	**2600**	
79-00-5	1,1,2-Trichloroethane	500	U
79-01-6	**Trichloroethene**	**9100**	
75-69-4	Trichlorofluoromethane	500	U
96-18-4	1,2,3-Trichloropropane	500	U
95-63-6	1,2,4-Trimethylbenzene	500	U
108-67-8	1,3,5-Trimethylbenzene	500	U
75-01-4	Vinyl chloride	200	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0K030150 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN9971AA
Dilution factor: 100
Moisture %:

Date Received: 11/03/00
Date Extracted: 11/13/00
Date Analyzed: 11/13/00

QC Batch: 0319486

Client Sample Id: DUPE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	500	U
95-47-6	o-Xylene	250	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0K030150 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9981AA Date Extracted: 11/13/00
Dilution factor: 5 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: MANSON BRANCH #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	25	U
71-43-2	Benzene	25	U
108-86-1	Bromobenzene	25	U
74-97-5	Bromochloromethane	25	U
75-27-4	Bromodichloromethane	25	U
75-25-2	Bromoform	25	U
74-83-9	Bromomethane	25	U
104-51-8	n-Butylbenzene	25	U
135-98-8	sec-Butylbenzene	25	U
98-06-6	tert-Butylbenzene	25	U
56-23-5	Carbon tetrachloride	25	U
108-90-7	Chlorobenzene	25	U
124-48-1	Chlorodibromomethane	25	U
75-00-3	Chloroethane	25	U
67-66-3	Chloroform	25	U
74-87-3	Chloromethane	25	U
95-49-8	2-Chlorotoluene	25	U
106-43-4	4-Chlorotoluene	25	U
96-12-8	1,2-Dibromo-3-chloropropane	25	U
106-93-4	1,2-Dibromoethane	25	U
74-95-3	Dibromomethane	25	U
95-50-1	1,2-Dichlorobenzene	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	25	U
75-71-8	Dichlorodifluoromethane	25	U
75-34-3	1,1-Dichloroethane	25	U
107-06-2	1,2-Dichloroethane	25	U
156-59-2	cis-1,2-Dichloroethene	59	

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K030150 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9981AA Date Extracted:11/13/00
Dilution factor: 5 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: MANSON BRANCH #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	12	U
75-35-4	**1,1-Dichloroethene**	**97**	
78-87-5	1,2-Dichloropropane	25	U
142-28-9	1,3-Dichloropropane	25	U
594-20-7	2,2-Dichloropropane	25	U
563-58-6	1,1-Dichloropropene	25	U
123-91-1	1,4-Dioxane	1200	U
100-41-4	Ethylbenzene	25	U
87-68-3	Hexachlorobutadiene	25	U
98-82-8	Isopropylbenzene	25	U
99-87-6	p-Isopropyltoluene	25	U
75-09-2	Methylene chloride	25	U
91-20-3	Naphthalene	25	U
103-65-1	n-Propylbenzene	25	U
630-20-6	1,1,1,2-Tetrachloroethane	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
127-18-4	Tetrachloroethene	25	U
108-88-3	Toluene	25	U
87-61-6	1,2,3-Trichlorobenzene	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U
71-55-6	**1,1,1-Trichloroethane**	**290**	
79-00-5	1,1,2-Trichloroethane	25	U
79-01-6	**Trichloroethene**	**720**	
75-69-4	Trichlorofluoromethane	25	U
96-18-4	1,2,3-Trichloropropane	25	U
95-63-6	1,2,4-Trimethylbenzene	25	U
108-67-8	1,3,5-Trimethylbenzene	25	U
75-01-4	Vinyl chloride	10	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K030150 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9981AA Date Extracted:11/13/00
Dilution factor: 5 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: MANSON BRANCH #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	25	U
95-47-6	o-Xylene	12	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K030150 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9991AA Date Extracted:11/13/00
Dilution factor: 1 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: SEEP #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	**cis-1,2-Dichloroethene**	**7.9**	

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K030150 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9991AA Date Extracted:11/13/00
Dilution factor: 1 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: SEEP #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	**Trichloroethene**	**5.4**	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0K030150 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DN9991AA Date Extracted: 11/13/00
Dilution factor: 1 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: SEEP #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0K030150 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DPAAA1AA Date Extracted:11/13/00
Dilution factor: 1 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0K030150 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DPAAA1AA Date Extracted:11/13/00
Dilution factor: 1 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0K030150 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/03/00
Work Order: DPAAA1AA Date Extracted:11/13/00
Dilution factor: 1 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Received 12/4/00

SEVERN TRENT SERVICES

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4101 Shuffel Drive NW
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ANALYTICAL REPORT

THERMO KING

Lot #: A0K020282

Rhonda Quinn

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3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 29, 2000

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 11/01/00	Chain of Custody Number: 49218
Address: 3800 Town Point Dr. NW	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact	Lab Contact: Becky Strait	Analysis (Attach list if more space is needed)
Project Name: Thermo King	Carrier/Waybill Number		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	8260 B	LV-Oxygen	Special Instructions/ Conditions of Receipt
GW-AOC 1-1 (52'-56')	10/31/00	1522	X						3			✓	✓	Analyze according to Rhonda Quinn's instructions
GW-AOC 1-1 (59'-63')	10/31/00	1645	X						3			✓	✓	
EQB	11/01/00	0815	X						3			✓	✓	
SO-AOC 3-1 (29'-31')	11/01/00	1315			X	4						✓	✓	
SO-AOC 3-1 (38-40)	11/01/00	1400			X	4						✓	✓	
SO-Dupe	11/01/00	1350			X	4						✓	✓	
GW-AOC 3-1 (40'-44')	11/01/00	1735	X						3			✓	✓	ms/msd ✓

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	11/01/00	1430	1. Received By: Anne Sanders	11-2-00	920 AM
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: ms/msd per Chris Krambis - fw 11/2/00

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0K020282 001

Sample WT/Vol: 5 / mL
Work Order: DN9FK1AA
Dilution factor: 200
Moisture %:

Date Received: 11/02/00
Date Extracted:11/11/00
Date Analyzed: 11/11/00

QC Batch: 0317139

Client Sample Id: GW-AOC 1-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	1000	U
108-86-1	Bromobenzene	1000	U
74-97-5	Bromochloromethane	1000	U
75-27-4	Bromodichloromethane	1000	U
75-25-2	Bromoform	1000	U
74-83-9	Bromomethane	1000	U
104-51-8	n-Butylbenzene	1000	U
135-98-8	sec-Butylbenzene	1000	U
98-06-6	tert-Butylbenzene	1000	U
56-23-5	Carbon tetrachloride	1000	U
108-90-7	Chlorobenzene	1000	U
124-48-1	Chlorodibromomethane	1000	U
75-00-3	Chloroethane	1000	U
67-66-3	Chloroform	1000	U
74-87-3	Chloromethane	1000	U
95-49-8	2-Chlorotoluene	1000	U
106-43-4	4-Chlorotoluene	1000	U
96-12-8	1,2-Dibromo-3-chloropropane	1000	U
106-93-4	1,2-Dibromoethane	1000	U
74-95-3	Dibromomethane	1000	U
95-50-1	1,2-Dichlorobenzene	1000	U
541-73-1	1,3-Dichlorobenzene	1000	U
106-46-7	1,4-Dichlorobenzene	1000	U
75-71-8	Dichlorodifluoromethane	1000	U
75-34-3	1,1-Dichloroethane	1000	U
107-06-2	1,2-Dichloroethane	1000	U
156-59-2	cis-1,2-Dichloroethene	500	U
156-60-5	trans-1,2-Dichloroethene	500	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K020282 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9?K1AA Date Extracted:11/11/00
Dilution factor: 200 Date Analyzed: 11/11/00
Moisture %:

QC Batch: 0317139

Client Sample Id: GW-AOC 1-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	2000	
78-87-5	1,2-Dichloropropane	1000	U
142-28-9	1,3-Dichloropropane	1000	U
594-20-7	2,2-Dichloropropane	1000	U
563-58-6	1,1-Dichloropropene	1000	U
123-91-1	1,4-Dioxane	50000	U
100-41-4	Ethylbenzene	1000	U
87-68-3	Hexachlorobutadiene	1000	U
98-82-8	Isopropylbenzene	1000	U
99-87-6	p-Isopropyltoluene	1000	U
75-09-2	Methylene chloride	1000	U
91-20-3	Naphthalene	1000	U
103-65-1	n-Propylbenzene	1000	U
100-42-5	Styrene	1000	U
630-20-6	1,1,1,2-Tetrachloroethane	1000	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	U
127-18-4	Tetrachloroethene	1000	U
108-88-3	Toluene	1000	U
87-61-6	1,2,3-Trichlorobenzene	1000	U
120-82-1	1,2,4-Trichlorobenzene	1000	U
71-55-6	1,1,1-Trichloroethane	37000	
79-00-5	1,1,2-Trichloroethane	1000	U
79-01-6	Trichloroethene	4100	
75-69-4	Trichlorofluoromethane	1000	U
96-18-4	1,2,3-Trichloropropane	1000	U
95-63-6	1,2,4-Trimethylbenzene	1000	U
108-67-8	1,3,5-Trimethylbenzene	1000	U
75-01-4	Vinyl chloride	400	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K020282 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9FK1AA Date Extracted:11/11/00
Dilution factor: 200 Date Analysed: 11/11/00
Moisture %:

QC Batch: 0317139

Client Sample Id: GW-AOC 1-1 (52'-56')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	1000	U
95-47-6	o-Xylene	500	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K020282 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9FP1AA Date Extracted:11/13/00
Dilution factor: 10 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: GW-AOC 1-1 (59'-63')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	50	U
108-86-1	Bromobenzene	50	U
74-97-5	Bromochloromethane	50	U
75-27-4	Bromodichloromethane	50	U
75-25-2	Bromoform	50	U
74-83-9	Bromomethane	50	U
104-51-8	n-Butylbenzene	50	U
135-98-8	sec-Butylbenzene	50	U
98-06-6	tert-Butylbenzene	50	U
56-23-5	Carbon tetrachloride	50	U
108-90-7	Chlorobenzene	50	U
124-48-1	Chlorodibromomethane	50	U
75-00-3	Chloroethane	50	U
67-66-3	Chloroform	50	U
74-87-3	Chloromethane	50	U
95-49-8	2-Chlorotoluene	50	U
106-43-4	4-Chlorotoluene	50	U
96-12-8	1,2-Dibromo-3-chloropropane	50	U
106-93-4	1,2-Dibromoethane	50	U
74-95-3	Dibromomethane	50	U
95-50-1	1,2-Dichlorobenzene	50	U
541-73-1	1,3-Dichlorobenzene	50	U
106-46-7	1,4-Dichlorobenzene	50	U
75-71-8	Dichlorodifluoromethane	50	U
75-34-3	1,1-Dichloroethane	50	U
107-06-2	1,2-Dichloroethane	50	U
156-59-2	cis-1,2-Dichloroethene	25	U
156-60-5	trans-1,2-Dichloroethene	25	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K020282 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9FP1AA Date Extracted:11/13/00
Dilution factor: 10 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0319486

Client Sample Id: GW-AOC 1-1 (59'-63')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	50	U
78-87-5	1,2-Dichloropropane	50	U
142-28-9	1,3-Dichloropropane	50	U
594-20-7	2,2-Dichloropropane	50	U
563-58-6	1,1-Dichloropropene	50	U
123-91-1	1,4-Dioxane	2500	U
100-41-4	Ethylbenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
98-82-8	Isopropylbenzene	50	U
99-87-6	p-Isopropyltoluene	50	U
75-09-2	Methylene chloride	50	U
91-20-3	Naphthalene	50	U
103-65-1	n-Propylbenzene	50	U
100-42-5	Styrene	50	U
630-20-6	1,1,1,2-Tetrachloroethane	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
127-18-4	Tetrachloroethene	50	U
108-88-3	Toluene	50	U
87-61-6	1,2,3-Trichlorobenzene	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
71-55-6	1,1,1-Trichloroethane	1100	
79-00-5	1,1,2-Trichloroethane	50	U
79-01-6	Trichloroethene	120	
75-69-4	Trichlorofluoromethane	50	U
96-18-4	1,2,3-Trichloropropane	50	U
95-63-6	1,2,4-Trimethylbenzene	50	U
108-67-8	1,3,5-Trimethylbenzene	50	U
75-01-4	Vinyl chloride	20	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Lab Sample ID:A0K020282 002

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN9FP1AA
Dilution factor: 10
Moisture %:

Date Received: 11/02/00
Date Extracted:11/13/00
Date Analyzed: 11/13/00

QC Batch: 0319486

Client Sample Id: GW-AOC 1-1 (59'-63')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	50	U
95-47-6	o-Xylene	25	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Lab Sample ID:A0K020282 003

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN9FQ1AA
Dilution factor: 1
Moisture %:

Date Received: 11/02/00
Date Extracted:11/11/00
Date Analyzed: 11/11/00

QC Batch: 0317139

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Lab Sample ID:A0K020282 003

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN9FQ1AA
Dilution factor: 1
Moisture %:

Date Received: 11/02/00
Date Extracted:11/11/00
Date Analyzed: 11/11/00

QC Batch: 0317139

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K020282 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9FQ1AA Date Extracted:11/11/00
Dilution factor: 1 Date Analyzed: 11/11/00
Moisture %:

QC Batch: 0317139

Client Sample Id: EQB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

FORM I

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING-LOUISVILLE

Lot #: A0J310185

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca L. Strait
Project Manager

November 28, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
LAW	Rhonda Quinn	10/30/00	49223
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr.	(770) 421-3400 / (770) 421-3486		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw GA 30144		Becky Strait	
Project Name	**Carrier/Waybill Number**		
Thermo King - Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	1,4-Dioxane	Special Instructions/ Conditions of Receipt
SO-AOC 3-2 (0'-2')	10/30/00	1102			X	4						✓	✓	Analyze samples for Rhonda Quinn
SO-AOC 3-2 (8'-10')	10/30/00	1330			X	4						✓	✓	
SO-AOC 3-2 (38'-40')	10/30/00	1438			X	4						✓	✓	
GW-AOC 3-2 (40'-44')	10/30/00	1500	X						3			✓	✓	
SO AOC 3-1 (0'-2')	10/30/00	0940			X	4						✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Christopher Kimbrough	10/30/00	1515	1. Received By:	10/31/00	915
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

[redacted]

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: LAW	Project Manager: Rhonda Quinn	Date: 11/01/00	Chain of Custody Number: 49218
Address: 3800 Town Point Dr. NW	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Becky Strait	
Project Name: Thermo King	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8260B	1,4-Dioxane	Special Instructions/ Conditions of Receipt
GW-AOC 1-1 (52'-56')	10/31/00	1522	X						3			✓	✓	Analyze according
GW-AOC 1-1 (59'-63')	10/31/00	1645	X						3			✓	✓	to Rhonda
														Quinn's
EQB	11/01/00	0815	X						3			✓	✓	instructions
SO-AOC 3-1 (29'-31')	11/01/00	1315			X	4						✓	✓	
SO-AOC 3-1 (38-40)	11/01/00	1400			X	4						✓	✓	
SO-Dupe	11/01/00	1350			X	4						✓	✓	
GW-AOC 3-1 (40'-44')	11/01/00	1335	X						3			✓	✓	MS/MSD RW 11/2

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☑ 21 Days ☐ Other ____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Christopher Krambis Jr	11/01/00	1430	1. Received By: Anne Sanders	11-2-00	920 AM
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments: MS/MSD per Chris Krambis - RW 11/2/00

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

14

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) WG Lab Sample ID:A0J310185 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/31/00
Work Order: DN4KF1AA Date Extracted:11/09/00
Dilution factor: 100 Date Analyzed: 11/09/00
Moisture %:

QC Batch: 0317136

Client Sample Id: GW-AOC 3-2 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	500	U
108-86-1	Bromobenzene	500	U
74-97-5	Bromochloromethane	500	U
75-27-4	Bromodichloromethane	500	U
75-25-2	Bromoform	500	U
74-83-9	Bromomethane	500	U
104-51-8	n-Butylbenzene	500	U
135-98-8	sec-Butylbenzene	500	U
98-06-6	tert-Butylbenzene	500	U
56-23-5	Carbon tetrachloride	500	U
108-90-7	Chlorobenzene	500	U
124-48-1	Chlorodibromomethane	500	U
75-00-3	Chloroethane	500	U
67-66-3	Chloroform	500	U
74-87-3	Chloromethane	500	U
95-49-8	2-Chlorotoluene	500	U
106-43-4	4-Chlorotoluene	500	U
96-12-8	1,2-Dibromo-3-chloropropane	500	U
106-93-4	1,2-Dibromoethane	500	U
74-95-3	Dibromomethane	500	U
95-50-1	1,2-Dichlorobenzene	500	U
541-73-1	1,3-Dichlorobenzene	500	U
106-46-7	1,4-Dichlorobenzene	500	U
75-71-8	Dichlorodifluoromethane	500	U
75-34-3	1,1-Dichloroethane	500	U
107-06-2	1,2-Dichloroethane	500	U
156-59-2	cis-1,2-Dichloroethene	270	
156-60-5	trans-1,2-Dichloroethene	250	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) WG Lab Sample ID:A0J310185 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/31/00
Work Order: DN4KF1AA Date Extracted:11/09/00
Dilution factor: 100 Date Analyzed: 11/09/00
Moisture %:

QC Batch: 0317136

Client Sample Id: GW-AOC 3-2 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	1200	
78-87-5	1,2-Dichloropropane	500	U
142-28-9	1,3-Dichloropropane	500	U
594-20-7	2,2-Dichloropropane	500	U
563-58-6	1,1-Dichloropropene	500	U
123-91-1	1,4-Dioxane	25000	U
100-41-4	Ethylbenzene	500	U
87-68-3	Hexachlorobutadiene	500	U
98-82-8	Isopropylbenzene	500	U
99-87-6	p-Isopropyltoluene	500	U
75-09-2	Methylene chloride	500	U
91-20-3	Naphthalene	500	U
103-65-1	n-Propylbenzene	500	U
100-42-5	Styrene	500	U
630-20-6	1,1,1,2-Tetrachloroethane	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
127-18-4	Tetrachloroethene	500	U
108-88-3	Toluene	500	U
87-61-6	1,2,3-Trichlorobenzene	500	U
120-82-1	1,2,4-Trichlorobenzene	500	U
71-55-6	1,1,1-Trichloroethane	5600	
79-00-5	1,1,2-Trichloroethane	500	U
79-01-6	Trichloroethene	7200	
75-69-4	Trichlorofluoromethane	500	U
96-18-4	1,2,3-Trichloropropane	500	U
95-63-6	1,2,4-Trimethylbenzene	500	U
108-67-8	1,3,5-Trimethylbenzene	500	U
75-01-4	Vinyl chloride	200	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) WG Lab Sample ID:A0J310185 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/31/00
Work Order: DN4KF1AA Date Extracted:11/09/00
Dilution factor: 100 Date Analyzed: 11/09/00
Moisture %:

QC Batch: 0317136

Client Sample Id: GW-AOC 3-2 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	500	U
95-47-6	o-Xylene	250	U

FORM I

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) WQ
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J310185 006

Sample WT/Vol: 5 / mL
Work Order: DN4L81AA
Dilution factor: 1
Moisture %:

Date Received: 10/31/00
Date Extracted:11/10/00
Date Analyzed: 11/10/00

QC Batch: 0317136

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
155-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) WQ Lab Sample ID:A0J310185 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 10/31/00
Work Order: DN4L81AA Date Extracted:11/10/00
Dilution factor: 1 Date Analyzed: 11/10/00
Moisture %:

QC Batch: 0317136

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:0J31185

Matrix: (soil/water) WQ
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0J310185 006

Sample WT/Vol: 5 / mL
Work Order: DN4L81AA
Dilution factor: 1
Moisture %:

Date Received: 10/31/00
Date Extracted:11/10/00
Date Analyzed: 11/10/00

QC Batch: 0317136

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K020282 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9F31AA Date Extracted:11/11/00
Dilution factor: 50 Date Analyzed: 11/11/00
Moisture %:

QC Batch: 0317139

Client Sample Id: GW-AOC 3-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	250	U
108-86-1	Bromobenzene	250	U
74-97-5	Bromochloromethane	250	U
75-27-4	Bromodichloromethane	250	U
75-25-2	Bromoform	250	U
74-83-9	Bromomethane	250	U
104-51-8	n-Butylbenzene	250	U
135-98-8	sec-Butylbenzene	250	U
98-06-6	tert-Butylbenzene	250	U
56-23-5	Carbon tetrachloride	250	U
108-90-7	Chlorobenzene	250	U
124-48-1	Chlorodibromomethane	250	U
75-00-3	Chloroethane	250	U
67-66-3	Chloroform	250	U
74-87-3	Chloromethane	250	U
95-49-8	2-Chlorotoluene	250	U
106-43-4	4-Chlorotoluene	250	U
96-12-8	1,2-Dibromo-3-chloropropane	250	U
106-93-4	1,2-Dibromoethane	250	U
74-95-3	Dibromomethane	250	U
95-50-1	1,2-Dichlorobenzene	250	U
541-73-1	1,3-Dichlorobenzene	250	U
106-46-7	1,4-Dichlorobenzene	250	U
75-71-8	Dichlorodifluoromethane	250	U
75-34-3	1,1-Dichloroethane	250	U
107-06-2	1,2-Dichloroethane	250	U
156-59-2	cis-1,2-Dichloroethene	190	
156-60-5	trans-1,2-Dichloroethene	120	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K020282 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9F31AA Date Extracted:11/11/00
Dilution factor: 50 Date Analyzed: 11/11/00
Moisture %:

QC Batch: 0317139

Client Sample Id: GW-AOC 3-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	860	
78-87-5	1,2-Dichloropropane	250	U
142-28-9	1,3-Dichloropropane	250	U
594-20-7	2,2-Dichloropropane	250	U
563-58-6	1,1-Dichloropropene	250	U
123-91-1	1,4-Dioxane	12000	U
100-41-4	Ethylbenzene	250	U
87-68-3	Hexachlorobutadiene	250	U
98-82-8	Isopropylbenzene	250	U
99-87-6	p-Isopropyltoluene	250	U
75-09-2	Methylene chloride	250	U
91-20-3	Naphthalene	250	U
103-65-1	n-Propylbenzene	250	U
100-42-5	Styrene	250	U
630-20-6	1,1,1,2-Tetrachloroethane	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
127-18-4	Tetrachloroethene	250	U
108-88-3	Toluene	250	U
87-61-6	1,2,3-Trichlorobenzene	250	U
120-82-1	1,2,4-Trichlorobenzene	250	U
71-55-6	1,1,1-Trichloroethane	2700	
79-00-5	1,1,2-Trichloroethane	250	U
79-01-6	Trichloroethene	7900	
75-69-4	Trichlorofluoromethane	250	U
96-18-4	1,2,3-Trichloropropane	250	U
95-63-6	1,2,4-Trimethylbenzene	250	U
108-67-8	1,3,5-Trimethylbenzene	250	U
75-01-4	Vinyl chloride	100	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K020282 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9F31AA Date Extracted:11/11/00
Dilution factor: 50 Date Analyzed: 11/11/00
Moisture %:

QC Batch: 0317139

Client Sample Id: GW-AOC 3-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	250	U
95-47-6	o-Xylene	120	U

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID: A0K020282 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9F41AA Date Extracted: 11/11/00
Dilution factor: 1 Date Analyzed: 11/11/00
Moisture %:

QC Batch: 0317139

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0K020282 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/02/00
Work Order: DN9F41AA Date Extracted:11/11/00
Dilution factor: 1 Date Analyzed: 11/11/00
Moisture %:

QC Batch: 0317139

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID: A0K020282 008

Matrix: (soil/water) WQ
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN9F41AA
Dilution factor: 1
Moisture %:

Date Received: 11/02/00
Date Extracted: 11/11/00
Date Analyzed: 11/11/00

QC Batch: 0317139

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0K020282 007

Sample WT/Vol: 5 / mL
Work Order: DN9F31AD
Dilution factor: 50
Moisture %:

Date Received: 11/02/00
Date Extracted:11/11/00
Date Analyzed: 11/11/00

QC Batch: 0317139

Client Sample Id: GW-AOC 3-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	2700	
108-90-7	Chlorobenzene	2700	
75-35-4	1,1-Dichloroethene	3900	
108-88-3	Toluene	2600	
79-01-6	Trichloroethene	10000	

Received 12/4/00

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

Tel: 330 497 9396
Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING-LOUISVILLE

Lot #: A0K010157

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Rebecca Strait

Rebecca L. Strait
Project Manager

November 29, 2000

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
LAW	Rhonda Quinn	10/30/00	49220
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr. NW	(770) 421-3400 / (770) 421-3486		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144		Becky Strait	
Project Name	**Carrier/Waybill Number**		
Thermo King - Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	1,4-Dioxane	Special Instructions/ Conditions of Receipt
GW-AOC 3-2 (48'-52')	10/30/00	1730	X						3			✓	✓	Analyze according to Rhonda Quinn's requests.
GW-AOC 3-2 (60'-64')	10/30/00	1940	X						3			✓	✓	
SO-AOC-1-1 (0'-2')	10/31/00	0950			X	4						✓	✓	
SO-AOC 1-1 (29'-31')	10/31/00	1047			X	4						✓	✓	
SO-AOC 1-1 (38'-40')	10/31/00	1100			X	4						✓	✓	
GW-AOC 1-1 (40'-44')	10/31/00	1125	X						3			✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Chris Kimball	10/31/00	1500	1. Received By: Anne Sanders	11-1-00	1020
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K010157 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/01/00
Work Order: DN6C41AA Date Extracted:11/13/00
Dilution factor: 2 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0318486

Client Sample Id: GW-AOC 3-2 (48'-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	10	U
108-86-1	Bromobenzene	10	U
74-97-5	Bromochloromethane	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Chlorodibromomethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	10	U
74-95-3	Dibromomethane	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	8.3	
156-60-5	trans-1,2-Dichloroethene	5.0	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K010157 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/01/00
Work Order: DN6C41AA Date Extracted:11/13/00
Dilution factor: 2 Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0318486

Client Sample Id: GW-AOC 3-2 (48'-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	13	
78-87-5	1,2-Dichloropropane	10	U
142-28-9	1,3-Dichloropropane	10	U
594-20-7	2,2-Dichloropropane	10	U
563-58-6	1,1-Dichloropropene	10	U
123-91-1	1,4-Dioxane	500	U
100-41-4	Ethylbenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
98-82-8	Isopropylbenzene	10	U
99-87-6	p-Isopropyltoluene	10	U
75-09-2	Methylene chloride	10	U
91-20-3	Naphthalene	10	U
103-65-1	n-Propylbenzene	10	U
100-42-5	Styrene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
71-55-6	1,1,1-Trichloroethane	39	
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	230	
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
75-01-4	Vinyl chloride	4.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Lab Sample ID:A0K010157 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Date Received: 11/01/00
Work Order: DN6C41AA
Date Extracted:11/13/00
Dilution factor: 2
Date Analyzed: 11/13/00
Moisture %:

QC Batch: 0318486

Client Sample Id: GW-AOC 3-2 (48'-52')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	10	U
95-47-6	o-Xylene	5.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0K010157 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/01/00
Work Order: DN6DP1AA Date Extracted:11/10/00
Dilution factor: 1 Date Analyzed: 11/10/00
Moisture %:

QC Batch: 0317136

Client Sample Id: GW-AOC 3-2 (60'-64')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID:A0K010157 002

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN6DP1AA
Dilution factor: 1
Moisture %:

Date Received: 11/01/00
Date Extracted:11/10/00
Date Analyzed: 11/10/00

QC Batch: 0317136

Client Sample Id: GW-AOC 3-2 (60'-64')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	9.9	
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	19	
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Lab Sample ID:A0K010157 002

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN6DP1AA
Dilution factor: 1
Moisture %:

Date Received: 11/01/00
Date Extracted:11/10/00
Date Analyzed: 11/10/00

QC Batch: 0317136

Client Sample Id: GW-AOC 3-2 (60'-64')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID: A0K010157 006

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN6D21AA
Dilution factor: 833.33
Moisture %:

Date Received: 11/01/00
Date Extracted: 11/13/00
Date Analyzed: 11/13/00

QC Batch: 0318486

Client Sample Id: GW-AOC 1-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	4200	U
108-86-1	Bromobenzene	4200	U
74-97-5	Bromochloromethane	4200	U
75-27-4	Bromodichloromethane	4200	U
75-25-2	Bromoform	4200	U
74-83-9	Bromomethane	4200	U
104-51-8	n-Butylbenzene	4200	U
135-98-8	sec-Butylbenzene	4200	U
98-06-6	tert-Butylbenzene	4200	U
56-23-5	Carbon tetrachloride	4200	U
108-90-7	Chlorobenzene	4200	U
124-48-1	Chlorodibromomethane	4200	U
75-00-3	Chloroethane	4200	U
67-66-3	Chloroform	4200	U
74-87-3	Chloromethane	4200	U
95-49-8	2-Chlorotoluene	4200	U
106-43-4	4-Chlorotoluene	4200	U
96-12-8	1,2-Dibromo-3-chloropropane	4200	U
106-93-4	1,2-Dibromoethane	4200	U
74-95-3	Dibromomethane	4200	U
95-50-1	1,2-Dichlorobenzene	4200	U
541-73-1	1,3-Dichlorobenzene	4200	U
106-46-7	1,4-Dichlorobenzene	4200	U
75-71-8	Dichlorodifluoromethane	4200	U
75-34-3	1,1-Dichloroethane	4200	U
107-06-2	1,2-Dichloroethane	4200	U
156-59-2	cis-1,2-Dichloroethene	2100	U
156-60-5	trans-1,2-Dichloroethene	2100	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID:A0K010157 006

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN6D21AA
Dilution factor: 833.33
Moisture %:

Date Received: 11/01/00
Date Extracted:11/13/00
Date Analyzed: 11/13/00

QC Batch: 0318486

Client Sample Id: GW-AOC 1-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	4200	U
78-87-5	1,2-Dichloropropane	4200	U
142-28-9	1,3-Dichloropropane	4200	U
594-20-7	2,2-Dichloropropane	4200	U
563-58-6	1,1-Dichloropropene	4200	U
123-91-1	1,4-Dioxane	210000	U
100-41-4	Ethylbenzene	4200	U
87-68-3	Hexachlorobutadiene	4200	U
98-82-8	Isopropylbenzene	4200	U
99-87-6	p-Isopropyltoluene	4200	U
75-09-2	Methylene chloride	4200	U
91-20-3	Naphthalene	4200	U
103-65-1	n-Propylbenzene	4200	U
100-42-5	Styrene	4200	U
630-20-6	1,1,1,2-Tetrachloroethane	4200	U
79-34-5	1,1,2,2-Tetrachloroethane	4200	U
127-18-4	Tetrachloroethene	4200	U
108-88-3	Toluene	4200	U
87-61-6	1,2,3-Trichlorobenzene	4200	U
120-82-1	1,2,4-Trichlorobenzene	4200	U
71-55-6	1,1,1-Trichloroethane	83000	
79-00-5	1,1,2-Trichloroethane	4200	U
79-01-6	Trichloroethene	10000	
75-69-4	Trichlorofluoromethane	4200	U
96-18-4	1,2,3-Trichloropropane	4200	U
95-63-6	1,2,4-Trimethylbenzene	4200	U
108-67-8	1,3,5-Trimethylbenzene	4200	U
75-01-4	Vinyl chloride	1700	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID:A0K010157 006

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN6D21AA
Dilution factor: 833.33
Moisture %:

Date Received: 11/01/00
Date Extracted:11/13/00
Date Analyzed: 11/13/00

QC Batch: 0318486

Client Sample Id: GW-AOC 1-1 (40'-44')

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	4200	U
95-47-6	o-Xylene	2100	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID:A0K010157 007

Matrix: (soil/water) WQ
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DN6D51AA
Dilution factor: 1
Moisture %:

Date Received: 11/01/00
Date Extracted:11/10/00
Date Analyzed: 11/10/00

QC Batch: 0317136

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ Lab Sample ID:A0K010157 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 11/01/00
Work Order: DN6D51AA Date Extracted:11/10/00
Dilution factor: 1 Date Analyzed: 11/10/00
Moisture %:

QC Batch: 0317136

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
100-42-5	Styrene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WQ
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID: A0K010157 007

Sample WT/Vol: 5 / mL
Work Order: DN6D51AA
Dilution factor: 1
Moisture %:

Date Received: 11/01/00
Date Extracted: 11/10/00
Date Analyzed: 11/10/00

QC Batch: 0317136

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

APPENDIX D

REPORT OF WATER WELL AND SURFACE WATER SAMPLING AND ANALYSES

LAWGIBB GROUP

August 18, 2000

Privileged and Confidential
Attorney Work Product

Mr. Charles A. Perry, Esq.
Hunton & Williams
NationsBank Plaza, Suite 4100
600 Peachtree Street NE
Atlanta, Georgia 30308-2216

Subject: **Report of Water Well and Surface Water Sampling and Analysis Thermo King Facility Louisville, Georgia Law Project No. 12000-0-2050.03**

Dear Mr. Perry:

Law Engineering and Environmental Services, Inc. (LAW) is pleased to provide to Hunton & Williams the Report of Water Well and Surface Water Sampling and Analysis for the Thermo King facility in Louisville, Georgia. This report presents the procedures used to collect water samples and a summary of the analytical results. The scope of services performed were conducted per LAW's *Confirmation Scope of Work for Water-Well Sampling and Analysis,* dated April 27, 2000 and authorized by Hunton & Williams on April 27, 2000.

We appreciate the opportunity to provide environmental consulting services to Hunton & Williams. Please contact us at (770) 421-3400 should you have any questions or comments on this report.

Sincerely,

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

Rhonda N. Quinn, P.G.
Senior Geologist

Larry A. Neal, P.E.
Principal Environmental Engineer
Corporate Consultant

Attachment

cc: Dave Sordi – Ingersoll-Rand Company

LAW Engineering and Environmental Services, Inc.
3200 Town Point Drive, N.W., Suite 100 • Kennesaw, GA 30144
770-421-3400 • Fax: 770-421-3486

LAW

LAWGIBB Group Member

REPORT OF WATER WELL AND SURFACE WATER SAMPLING AND ANALYSIS

THERMO KING FACILITY
LOUISVILLE, GEORGIA

Prepared for:
Hunton & Williams
Atlanta, Georgia

Prepared by:
Law Engineering and Environmental Services, Inc.
Kennesaw, Georgia

August 18, 2000

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Photograph 6 Beaver Dam Along Manson Branch

1.0 INTRODUCTION

The Thermo King facility in Louisville, Georgia conducted an environmental assessment in early 2000 as a follow-up to acquisition of the facility by Ingersoll-Rand from Westinghouse. The assessment included on-site soil sampling and analysis, and the installation of six shallow monitoring wells on-site with ground-water sampling and analysis. The assessment showed the presence of two volatile organic compounds (VOCs), trichloroethene (TCE) and toluene in the ground water in the uppermost aquifer. The VOC concentrations ranged from 1 to 7400 ug/L. The assessment showed that the shallow ground-water flow direction across the facility property is to the east toward Manson Branch.

Based on this information, Law Engineering and Environmental Services, Inc. (LAW) was engaged to conduct a preliminary water-supply well survey of the surrounding area. The preliminary survey showed that to the west the City of Louisville obtains its water from six municipal water-supply wells and that private water-supply wells are located to the east and southeast of the Thermo King facility.

To determine if any water-supply wells may have been impacted, LAW was engaged to identify the wells located closest to the facility and to collect water samples for analysis. Sampling of Manson Branch to the east was also conducted to evaluate potential surface water impacts from shallow ground water seepage to Manson Branch. This report presents a description of the sampling activities and the analytical results of the sampling.

2.0 SCOPE OF SERVICES

The scope of services conducted for the water well sampling and analysis activities is discussed in the following sections. Generally, the activities included identifying the locations of water-supply wells, collection of ground-water samples from municipal and private wells, and collection of surface water samples from Manson Branch.

2.1 IDENTIFICATION OF WATER-SUPPLY WELLS

In April 2000, LAW conducted a preliminary water-supply well survey within a three-mile radius of the facility. The preliminary survey identified six municipal wells and several private wells in the surrounding area based on visual observations and review of available Georgia EPD and United States Geological Survey (USGS) well databases. Using the results of the preliminary well survey, LAW and Thermo King worked together to identify those municipal and private water-supply wells that were located closest to the Thermo King facility. Thermo King contacted Belinda Sharron, environmental technician with the Jefferson County Health Department to confirm which residences were supplied water from wells. Thermo King also contacted Don Rhodes, city manager for the City of Louisville to obtain information on the City of Louisville municipal wells and to confirm which residences were supplied water by the City of Louisville and/or Jefferson County.

The City of Louisville owns and operates a total of six municipal water-supply wells. Five of the wells are located on the southwest side of the city and the sixth well is located to the southeast of the intersection of Highway 17 and Highway 24 near Lake Marian. Nine private water-supply wells providing water to residences were located to the east and southeast of the Thermo King facility. Table 1 summarizes the well owner information and addresses where the wells are located. Figure 1 depicts the locations of the wells in reference to the Thermo King facility.

2.2 SAMPLING OF WATER-SUPPLY WELLS

Ground-water samples were collected in triplicate from the six municipal and nine private water-supply wells on May 2 through 4, 2000. Prior to collecting water samples, the well owner was interviewed about the depth of the well, how the well was installed, and when the well was

installed. Verbal permission to collect a water sample was also granted during the interview. Table 1 summarizes the information provided on well depths, installation, and age of each well.

The six City of Louisville wells were sampled on May 2, 2000. The ground-water samples were collected from a tap at the well head prior to the water entering the aeration unit. The tap was turned on to full and the water was allowed to run a few minutes before collecting a water sample. The flow was then turned down so that the volume of water was reduced to a narrow stream. The water was collected in 40-milliliter VOC vials with Teflon® septa and containing hydrochloric acid as a preservative. Triplicate samples were collected from each municipal well. Quality control (QC) samples, including a matrix spike and matrix spike duplicate, were collected from Louisville City Well No. 1.

Ground-water samples were collected on May 3 and 4, 2000 from the nine private residences from either the kitchen sink tap or an outside tap. When a sample was collected from the kitchen tap, the aerator was temporarily removed from the tap for the collection of the sample. Prior to collecting the water sample, the tap was turned on to full and the water was allowed to run a few minutes before collecting a water sample. The tap was then turned down so that the volume of water was reduced. The water was collected in 40-milliliter VOC vials with Teflon® septa and containing hydrochloric acid as a preservative. Triplicate samples were collected from each private well. A duplicate sample set was also collected from the well of Ms. Ethel Clark for QC purposes.

Following the collection of VOC water samples from the wells, an additional water sample was collected for the measurement of pH, specific conductance, turbidity, and temperature in the field. The field measurement of the water quality parameters are summarized on Table 2. The water samples were placed in sample coolers with ice immediately following collection. All of the water samples were maintained under chain-of-custody protocol during the sampling and shipping to the analyzing laboratories. The samples were shipped to the laboratories by overnight courier. Trip blanks were included in each sample cooler shipped to the laboratory. The three samples were submitted to three laboratories for VOC analysis using USEPA Method 8260B. The three laboratories contracted to analyze the ground-water samples were Lancaster

Laboratories in Lancaster, Pennsylvania; STL-Savannah Laboratories in Savannah, Georgia; and STL-North Canton in North Canton, Ohio.

2.3 SAMPLING OF SURFACE WATER

On May 3, 2000, two surface water samples were collected in triplicate from Manson Branch for laboratory analysis. One surface water sample (Manson Branch #1) was collected from the main channel of Manson Branch on the south side (downstream) of the Highway 24 bridge. The second sample (Manson Branch #2) was collected from a ground-water seep approximately 30 feet above the main channel and downslope from the Thermo King facility (Figure 2). The spring (Manson Spring) on the north side of Highway 24 and near the bridge was not flowing and could not be sampled. Manson Branch flows to the south (Figure 2). The surface water samples were collected by gently submerging 40-milliliter VOC vials with Teflon® septa below the water surface. Triplicate samples were collected from each of the two surface water sampling locations and were submitted to Lancaster Laboratories, STL-Savannah Laboratories, and STL-North Canton for analysis for VOCs using USEPA Method 8260B.

On June 6 and 7, 2000, 13 additional surface water samples (Manson Branch #3 through #12, Seep #1, Seep #2, and Seep #3) were collected from Manson Branch at locations downstream from the two initial surface water samples (Manson Branch #1 and #2). Surface water samples Manson Branch #3 through #12 were collected from the main channel of Manson Branch. Seep #1, Seep #2, and Seep #3 were collected from ground-water seeps along the western bank of Manson Branch. The Manson Branch ground-water seep location (Manson Branch #2) sampled in May was not re-sampled during the June sampling event. At each sampling location, the water quality parameters of temperature, pH, specific conductivity, and dissolved oxygen were measured in the field with a Horiba U-10 and are presented in Table 3. The locations of these surface water samples are presented on Figure 2. Ten of these samples were collected from predetermined locations along Manson Branch between Highway 24 and Highway 17 (Photographs 1 and 2). The other three samples were collected from visible ground-water seeps encountered along this stretch of the stream and flowing into Manson Branch (Photographs 3 and 4). The surface water samples were collected as described above in 40-milliliter VOC vials with Teflon® septa. Samples were submitted to STL-North Canton laboratory for chemical analysis for VOCs using USEPA Method 8260B.

As with the water samples collected from the water-supply wells, the surface water samples were placed in sample coolers packed with ice and maintained under chain-of-custody protocol from the time of sampling until receipt by the laboratories.

Observations on Manson Branch

During the June 2000 surface water sampling, LAW field personnel observed conditions along Manson Branch between Highways 24 and 17. Beginning at the location of Manson Branch #3 sample and continuing south (downstream) to the location of Manson Branch #8, the Branch was observed to have emergent vegetation in the channel and extensive wetlands along the channel (Photograph 5). The water in the Branch was brown-colored with a low flow rate. The wetlands became wider further downstream and the channel became braided eventually turning into a swamp with standing stagnant water. A large beaver dam located approximately 2900 feet upstream of the Highway 17 bridge was observed to be causing flooding along the Branch in the area of Manson Branch #9 sample. A smaller beaver dam located approximately 900 feet upstream of Manson Branch #11 sample was also causing flooding in the area (Photograph 6). Approximately 1200 feet upstream of Highway 17, the Branch began to show a clearly defined streambed. The Branch exhibited swampy and braided steam characteristics from Highway 24 downstream to approximately 1200 feet north (upstream) of Highway 17.

Manson Branch Seep #2 sample was located on the western bank of the Branch and approximately 350 feet downstream of Highway 24. This location was noted to have clear water emerging from the ground and to be about 2° C cooler than the water in the channel below the seep. Manson Branch Seep #3 sample was also located on the western bank of the Branch and approximately 700 feet downstream of Highway 24 (Photograph 4). This location was noted to discharge into a swampy area and to be about 2° C cooler than the water in the channel below the seep. Manson Branch Seep #1 was located on the western bank of the Branch and approximately 1020 feet upstream of Highway 17. The seep water was noted to be very clear upon emerging from the ground and to be about 2° C cooler than the water in the channel below the seep (Photograph 3).

2.4 DATA QUALITY ASSESSMENT

Upon receipt of the laboratory analytical data, a Data Quality Assessment (DQA) was performed on the data. The DQA is an evaluation of the precision and accuracy, completeness, comparability, and representativeness of the data. The DQA consisted of a review of the following:

- shipping and receiving documentation
- sample holding times
- quantitation limits
- analysis method(s)
- evaluation of laboratory blanks (method blanks and trip blanks)
- constituent recoveries on matrix spike and matrix spike duplicate samples
- performance evaluation of surrogates and laboratory control samples
- comparability of analytical results of the blind duplicate samples

The results of the DQA are discussed in Section 3.4. The raw data used for the DQA are maintained at LAW.

3.0 DISCUSSION OF ANALYTICAL RESULTS

Water samples from 15 water-supply wells and two surface water samples from Manson Branch were analyzed by the three contracted laboratories. An additional 13 surface water samples from Manson Branch were analyzed by STL-North Canton laboratory. Quality control/quality assurance (QA/QC) samples consisting of blind duplicates, matrix spike, and matrix spike duplicates, and trip blanks were also collected and analyzed by the laboratories. Laboratory reports for the samples are available in LAW's files.

3.1 ANALYTICAL RESULTS OF MUNICIPAL WATER-SUPPLY WELLS

The six municipal water-supply wells that provide water to the City of Louisville and portions of Jefferson County were sampled and analyzed for VOCs by three laboratories. The analytical results are summarized on Table 4. VOCs were not detected above the quantitation limit in any of the six City of Louisville wells.

3.2 ANALYTICAL RESULTS OF PRIVATE WATER-SUPPLY WELLS

The nine private water-supply wells that supply water to private residences that were located the closest to the Thermo King facility were sampled and analyzed for VOCs by three laboratories. The analytical results are summarized on Table 5. VOCs were not detected above the quantitation limit in any of the nine wells sampled.

3.3 ANALYTICAL RESULTS OF SURFACE WATER SAMPLES

Two surface water samples were collected from Manson Branch in May 2000 and analyzed for VOCs by three laboratories. The analytical results are summarized on Table 6. VOCs were not detected above the quantitation limits in the sample, Manson Branch #1, that was collected on the south side of the Highway 24 bridge. The ground-water seep sample, Manson Branch #2, collected downslope from the Thermo King facility contained four VOCs. All three laboratories reported the detection of the same four VOC constituents at similar concentrations. 1,1-dichloroethene was detected at concentrations ranging from 47 to 69 micrograms per liter (ug/L) and cis-1, 2-dichloroethene was detected at concentrations ranging from 25 to 36 ug/L.

1,1,1-trichloroethane was detected at concentrations ranging from 140 to 200 ug/L. Trichloroethene (TCE) was detected at concentrations ranging from 440 to 490 ug/L.

Subsequently, in June 2000, 13 additional surface water samples (Manson Branch #3 through #12, Seep #1, Seep #2, and Seep #3) were collected from Manson Branch at locations downstream from the two initial surface water samples (Manson Branch #1 and #2) and were analyzed for VOCs by the STL-North Canton laboratory. The chemical analytical results for the surface water samples are summarized in Table 6. Cis-1, 2-dichloroethene was detected at 3.8 ug/L in Seep #2. This ground-water seep sample is located approximately 200 feet north of Manson Branch #2 sample location (Figure 2). Seep #2 and Manson Branch #2 ground-water seep samples contained cis-1,2-dichloroethene at concentrations of 3.8 and 36 ug/L, respectively. VOCs were not detected above the quantitation limits, in any of the other June 2000 surface water or ground-water seep samples.

3.4 RESULTS OF THE DATA QUALITY ASSESSMENT

The results of data quality assessment (DQA) for the Water Well and Surface Water Samples is discussed below. The DQA for the water wells and initial surface water samples, collected in May 2000, is discussed first. The DQA for the additional surface water samples, collected in June 2000, is discussed subsequently.

3.4.1 Data Quality Evaluation of May, 2000 Ground-Water and Surface Water Samples

The May, 2000 samples were collected in triplicate and sent to three different laboratories; Lancaster Laboratories of Lancaster, Pennsylvania, STL-North Canton of North Canton, Ohio, and STL-Savannah of Savannah, Georgia.

The DQA was performed by LAW's staff chemists. The DQA indicates that all of the chemical data can be utilized without qualification. The detected analytes reported on the Manson Branch #2 sample compare well between the three laboratories. All three laboratories identified the same four constituents with an average relative standard deviation (%RSD) of 9.6%. Tables 4, 5, and 6 summarize the analytical results obtained by each laboratory. The Limit of Quantitation (LOQ) for each analyte is also noted per laboratory.

All comments have been segregated per laboratory. Each sample delivery group (SDG) was evaluated for compliance in general accordance with EPA SW846, Method 8260B, Update III. The categories assessed were:

1. Shipping and Receiving Documentation
   i. Custody evaluation
   ii. Login documentation
   iii. Cooler temperature
   iv. Holding times met
2. Overall analytical method compliance
   i. Instrument tune
   ii. Calibration
   iii. Compound identification parameters
   iv. Continuing calibration
   v. Final concentration calculation checks
3. Laboratory Accuracy
   i. Project compliance (proper compounds analyzed with specified LOQs, proper units, etc.)
   ii. Laboratory internal QA/QC compliance (Passing LCS/MS/MSD and surrogate recoveries per laboratory limits)
4. Summary comparison of sample results between laboratories (see Table 6)

The following comments are separated by laboratory per SDG, and address overall quality while clarifying noteworthy issues.

Lancaster Laboratories

SDG #713295 - 12 Samples (LCW#1, LCW#2, LCW#3, LCW#4, LCW#5, LCW#1MS, LCW#1MSD, LCW#6, Pierre Smith, Ethel Clark, Duplicate, TB00111 – No specific Chain-Of-Custody number present)

This SDG was received by the laboratory on May 4, 2000 and the cooler temperature was within method limits. All holding times were met, and the laboratory performed the analysis in general accordance with EPA SW846, Method 8260B, Update III. Overall laboratory accuracy is sufficient and all project specific LOQs were achieved. The only qualifier needed for this SDG pertains to compound identification parameters.

Currently, Lancaster is quantifying four compounds of interest using non-primary ions. Section 7.7.1 of Method 8260B specifies using only the primary ion of the detected compound for

quantitation. Lancaster was contacted and supporting documentation was obtained. VOCs were not detected in these 12 samples and no qualification of the data was required.

SDG #713533 – 9 Samples (Manson Branch #1, Manson Branch #2, W. Jones, J. Davis Jr., AP Jones Jr., Butch Dollar, Mattie Kittles, H. Jones, Trip Blank – No specific Chain-Of-Custody number present)

This SDG was received by the laboratory on May 5, 2000. The cooler temperature was within method prescribed limits and only one minor discrepancy was noted by the laboratory. The Trip Blank accompanying this SDG (TB00111) contained some headspace in the vial upon receipt. This sample was also found to contain 22 ug/L of methylene chloride. Methylene chloride is a common laboratory contaminant and raises no concern for the accuracy of the data supporting this SDG, especially since none of the water samples contained methylene chloride. The Manson Branch #2 sample contained four constituents of interest at concentrations that required a five-fold dilution for the quantitation of trichloroethene.

All holding times were met, and the laboratory performed the analysis in general accordance with EPA SW846, Method 8260B, Update III. Overall laboratory accuracy is acceptable and all project specific LOQs were met. The qualifier for the laboratory's use of alternative compound identification parameters, as noted in SDG #713295, are the same for this SDG.

SDG #713708 – 2 Samples (R. Gilmore and Trip Blank – No specific Chain-Of-Custody number present)

This SDG was received by the laboratory on May 6, 2000 and the cooler temperature was within method prescribed limits. All holding times were met, and the laboratory performed the analysis in general accordance with EPA SW846, Method 8260B, Update III. Overall laboratory accuracy was exceptional and all project specific LOQs were met. A qualifier is needed for this SDG in reference to sample custody. As documented on Lancaster's "Sample Administration Receipt Documentation Log", chain-of-custody (COC) seals were not present on the shipping container. However, the shipping cooler was recorded as 'sealed', and no discrepancies were noted in the discrepancy section of the chain-of-custody. The qualifier for the laboratory's use of alternative compound identification parameters, as noted in SDG #713295, are the same for this SDG, as both SDGs were analyzed together.

STL – North Canton

SDG #A0E040196 – 12 Samples (LCW#1, LCW#2, LCW#3, LCW#4, LCW#5, LCW#1MS, LCW#1MSD, LCW#6, Pierre Smith, Ethel Clark, Duplicate, Trip Blank – COC #59284)

This SDG was received by the laboratory on May 4, 2000 in a custody sealed cooler. The cooler was within temperature limits prescribed by the method. All analytical holding times were met and the laboratory performed the analysis in general accordance with EPA SW846, Method 8260B, Update III. Overall data quality is sufficient and no compounds of interest were detected outside of typical laboratory contaminants. No compounds were detected above project prescribed LOQs.

During custody evaluation, it is noted that custody was transferred from one field team member to another without the appropriate signature in the 'Received By' space. A total of 45 minutes is unaccounted for on the Chain of Custody while in LAW's possession. However, LAW's field 'team' was in possession of these samples until delivery to FedEx and subsequent receipt by STL – North Canton. Furthermore, all custody seals were intact on the shipping container lid and no discrepancies were noted on the laboratory's narrative form.

Currently, STL – North Canton is quantifying nine compounds of interest using non-primary ions. Section 7.7.1 of Method 8260B specifies using only the primary ion of the detected compound for quantitation. STL – North Canton was contacted and supporting documentation was obtained. No compounds of interest were detected in these 12 samples and no qualification of the data was required.

SDG #A0E050218 – 11 Samples (Manson Branch #1, Manson Branch #2, W. Jones, J. Davis Jr., AP Jones Jr., Butch Dollar, Mattie Kittles, H. Jones, Trip Blank – COC #59285; R. Gillmore, Trip Blank – COC #59282)

This SDG was received by the laboratory on May 5, 2000 in two separate shipping containers. The samples in both containers were received within the method required temperature range. All analytical holding times were met and the laboratory performed the analysis in general accordance with EPA SW846, Method 8260B, Update III. Overall data quality is sufficient. The Manson Branch #2 sample contained four VOC constituents of interest, with concentrations that required a three-fold dilution for the quantitation of trichloroethene. The detection limits for all

compounds of interest in this sample were elevated 3.3 times, since the laboratory elected to run the sample at a dilution only.

The laboratory's narrative form indicates the cooler was received without custody seals applied to the outside of the cooler. Nevertheless, the cooler was sealed with clear packing tape in the field in accordance with standard procedures. All sample containers arrived in good condition and agreed with the enclosed custody papers. No discrepancies were noted on the cooler receipt form by the laboratory.

This SDG was analyzed by the same instrument and calibration used for SDG #A0E040196. Therefore, the variance concerning STL's quantification of compounds, as noted in SDG #A0E040196 above, also applies.

STL - Savannah

SDG #TKL01 – 25 samples (LCW#1, LCW#2, LCW#3, LCW#4, LCW#5, LCW#1MS, LCW#1MSD, LCW#6, Trip Blank – COC #004292; Pierre Smith, Ethel Clark, Duplicate, Trip Blank – COC #004288; Manson Branch #1, Manson Branch #2, W. Jones, J. Davis Jr., AP Jones Jr., Butch Dollar, Trip Blank – COC #004289; Mattie Kittles, H. Jones, Trip Blank – COC #004290; R.Gillmore, Trip Blank – COC #004291)

The samples for this SDG were received over the course of several days starting on May 4, 2000 to May 6, 2000 in multiple shipping containers. All shipping containers were received within method specified temperature limits. One discrepancy was noted on STL – Savannah log-in forms (the laboratory received only one Trip Blank vial instead of the three noted on the chain-of custody). All analytical holding times were met and the laboratory performed the analysis in general accordance with EPA SW846, Method 8260B, Update III. Overall data quality is sufficient. The Manson Branch #2 sample contained four VOC constituents of interest and required a five-fold dilution for the quantitation of one constituent.

One point needing qualification for this SDG pertains to the laboratory's use of non-primary ions for the quantitation of ten analytes of interest. Section 7.7.1 of Method 8260B, Update III, specifies using only the primary ion of the detected compound for quantitation. It appears this variance is in place to promote the reduced analytical time obtained from using current separation technology. No qualification to the data was required.

3.4.2 Data Quality Evaluation of June, 2000 Surface Water Samples

A DQA was performed on the analytical data from the June 2000 surface water samples. The surface water samples were sent to and analyzed by STL-North Canton. The DQA showed that the chemical data submitted by STL – North Canton on June 26, 2000 can be utilized without qualification. This sample delivery group (SDG) was evaluated for compliance in general accordance with EPA SW846, Update III. The following comments address overall quality while clarifying any noteworthy issues.

STL – North Canton

SDG #A0F080204 – 14 Samples (Manson Branch #12, Manson Branch Seep #1 West, Manson Branch #11, Manson Branch #10, Manson Branch #9, Manson Branch #3, Manson Branch Seep #2 West, Manson Branch #4, Manson Branch Seep #3 West, Manson Branch #5, Manson Branch #6, Manson Branch #7, Manson Branch #8, Trip Blank)

This SDG was received by the laboratory on June 8, 2000 in a custody sealed cooler. The cooler temperature was 1.9°C, which is within temperature limits prescribed by the methods. The laboratory performed the analysis in general accordance with Method 8260B in EPA SW846, Update III. The samples were analyzed within the 14-day hold time. Overall data quality is sufficient. Summaries and noteworthy events pertaining to the analysis of these samples are highlighted below.

Instrument calibration for the raw data included in the final data package did not have any discrepancies noted. Surrogates and internal standards added to samples and QC were within the laboratory established recovery limits and retention time windows without exception. The daily Lab Blanks analyzed with each days sequence were not contaminated above the laboratory established reporting limits with any of the project analytes of interest (AOI). All laboratory spikes (LCS, MS/MSD) were within laboratory control limits.

A note in the laboratory's case narrative indicated an MS/MSD did not meet RPD criteria in batch 0171116. However, the sample in that batch was not a TK – Louisville sample. The MS/MSD performed on Manson Branch #12 passed both recovery and RPD requirements. No further qualification is needed for the other samples in this SDG.

4.0 CONCLUSIONS

The six City of Louisville and nine private water-supply wells located closest to the Thermo King facility were sampled in May 2000 and analyzed for VOCs. VOCs were not detected in any of the wells sampled. Two initial surface water samples were collected in May 2000 from Manson Branch and a ground-water seep and were analyzed for VOCs. VOCs were not detected in the surface water sample collected on the south side of the bridge on Highway 24 (Manson Branch #1). The ground-water seep sample (Manson Branch #2) collected adjacent to Manson Branch and down slope from the Thermo King facility contained four VOCs:

VOC	Mean Concentration (ug/L)
1,1-Dichloroethene	60
Cis-1, 2-dichloroethene	30
Trichloroethene	470
1,1,1-Trichloroethane	170

Thirteen subsequent surface water samples were collected from Manson Branch in June 2000 and were analyzed for VOCs. These samples were collected from locations immediately downstream of the initial, May, surface water samples. The ground-water seep sampled in May (Manson Branch #2) was not resampled during the June sampling event. Cis-1, 2-dichloroethene was detected at 3.8 ug/L in Seep #2 on the western bank of Manson Branch in June 2000. VOCs were not detected in any of the other June 2000 surface water or ground-water seep samples.

TABLES

TABLE 1: SUMMARY OF WATER-SUPPLY WELL PHYSICAL PROPERTIES

WELL OWNER	WELL LOCATION	TOTAL DEPTH OF WELL (ft, bgs)	DATE OF INSTALLATION	WELL USE
City of Louisville (Well No. 1)	Southwest end of Green Street in Louisville, GA	300-500	installed more than 15 years ago	municipal water supply
City of Louisville (Well No. 2)	Approximately 2100 feet southeast from intersection of SR 24 and SR 17, well is located on SR 17 within city limits of Louisville, GA	300-500	installed more than 15 years ago	municipal water supply
City of Louisville (Well No. 3)	Southwest end of Green Street in Louisville, GA	300-500	installed more than 15 years ago	municipal water supply
City of Louisville (Well No. 4)	Southwest end of Green Street in Louisville, GA	300-500	installed more than 15 years ago	municipal water supply
City of Louisville (Well No. 5)	Southwest end of Green Street in Louisville, GA	300-500	installed more than 15 years ago	municipal water supply
City of Louisville (Well No. 6)	Southwest end of Green Street in Louisville, GA	300-500	installed more than 15 years ago	municipal water supply
Ethel and Mary Clark	2134 Highway 24 East, Louisville, GA	unknown	unknown	single household water supply
John E. Davis Jr.	Charlie Road, Louisville, GA	approximately 180	installed approximately 8-10 years ago	single household water supply
Butch Dollar	1117 Highway 24 East, Louisville, GA	approximately 400	installed approximately 20 years ago	filling of residential swimming pool
Rocky and Charlotte Gillmore	2642 Highway 24 East, Louisville, GA	123	installed in 1998	single household water supply
AP Jones Jr.	2651 Highway 24 East, Louisville, GA	over 200	unknown	single household water supply
Harry Jones	2483 Highway 24 East, Louisville, GA	315	installed in 1949	single household water supply
Walter and Becky Jones	1302 Andrew Jones Road (mail box) Cross J Woods Road (house), Louisville,GA	unknown	installed approximately 5-6 years ago	single household water supply
Mattie Kittles	1106 Anna Road, Louisville, GA	unknown	installed approximately 15 years ago	supplies water to three households (Mattie Kittles, LeRoy Kittles, and Ruby Kittles)
Pierre and Cathy Smith	2226 Highway 17 South, Louisville, GA	approximately 250	installed approximately 3 years ago	single household water supply

Notes:
Information on well depths and date of installation was obtained from the well owners on May 2-4, 2000.
bgs = below ground surface

Prepared by: R. Quinn 5/8/00
Checked by: C. Williamson 5/17/00

TABLE 2: SUMMARY OF WATER-SUPPLY WELL SAMPLING DATA

WELL OWNER	SAMPLE IDENTIFICATION	DATE SAMPLED	PRELIMINARY WATER QUALITY PARAMETERS			
			pH (standard units)	Specific Conductance (mS/cm)	Temperature (°C)	Turbidity (NTUs)
City of Louisville (Well No. 1)	LCW #1	5/2/00	6.46	0.169	20.1	0
City of Louisville (Well No. 2)	LCW #6	5/2/00	6.51	0.252	20.2	60
City of Louisville (Well No. 3)	LCW #3	5/2/00	6.23	0.253	19.3	4
City of Louisville (Well No. 4)	LCW #2	5/2/00	6.38	0.144	20.0	0
City of Louisville (Well No. 5)	LCW #5	5/2/00	6.42	0.12	19.8	0
City of Louisville (Well No. 6)	LCW #4	5/2/00	6.08	0.104	21.7	13
Ethel and Mary Clark	Ethel Clark	5/3/00	6.65	0.259	20.2	0
John E. Davis Jr.	J Davis Jr.	5/3/00	Not measured			
Butch Dollar	Butch Dollar	5/4/00	7.11	0.357	20.3	16
Rocky and Charlotte Gillmore	R. Gillmore	5/4/00	6.77	0.165	22.8	0
AP Jones Jr.	AP Jones Jr.	5/4/00	7.04	0.383	19.7	0
Harry Jones	H. Jones	5/4/00	7.32	0.269	20.2	0
Walter and Becky Jones	W. Jones	5/3/00	Not measured			
Mattie Kittles	Mattie Kittles	5/4/00	7.3	0.273	20.3	0
Pierre and Cathy Smith	Pierre Smith	5/3/00	5.9	0.033	23.6	12

Notes:
pH = measure of acidity and alkalinity
mS/cm = milliSiemens per centimeter
°C = degrees Celsius
NTUs = Nephometric units
LCW = Louisville City Well
pH, specific conductance, temperature, and turbidity were measured in the field.

Prepared by: R. Quinn 5/9/00
Checked by: C. Williamson 5/17/00

TABLE 3: SUMMARY OF SURFACE WATER SAMPLING DATA

SAMPLE IDENTIFICATION	SAMPLE LOCATION	DATE SAMPLED	PRELIMINARY WATER QUALITY PARAMETERS				
			pH (standard units)	Specific Conductance (mS/cm)	Temperature (°C)	DO (mg/L)	Turbidity (NTUs)
Manson Branch # 1	South side of Hwy 24 Bridge	5/4/00	NM	NM	NM	NM	NM
Manson Branch # 2	Ground-water seep on west bank of Manson Branch, down slope of Thermo King	5/4/00	NM	NM	NM	NM	NM
Manson Branch # 3	500 ft downstream of Hwy 24	6/7/00	6.03	0.105	19.2	3.5	NM
Manson Branch # 4	700 ft downstream of Hwy 24	6/7/00	6.29	0.103	19.7	4.2	10
Manson Branch # 5	900 ft downstream of Hwy 24	6/7/00	6.02	0.143	20.4	1.98	9
Manson Branch # 6	1100 ft downstream of Hwy 24	6/7/00	6.3	0.101	21.4	2.42	NM
Manson Branch # 7	1300 ft downstream of Hwy 24	6/7/00	6.4	0.102	19.8	1.35	NM
Manson Branch # 8	1575 ft downstream of Hwy 24	6/7/00	6.47	0.116	22.3	2.91	NM
Manson Branch # 9	2900 ft upstream of Hwy 17	6/6/00	6.6	0.1	27	4.1	NM
Manson Branch # 10	2100 ft upstream of Hwy 17	6/6/00	6.5	0.12	25	3.8	NM
Manson Branch # 11	1200 ft upstream of Hwy 17	6/6/00	6.4	0.11	24	5	NM
Manson Branch # 12	At Hwy 17 Bridge	6/6/00	6.23	0.109	23.3	6.85	5-7
Manson Branch Seep West #1	Ground-water seep on west bank of Manson Branch, 1020 ft upstream of Hwy 17	6/6/00	6.1	0.04	21	9.5	<1
Manson Branch Seep West #2	Ground-water seep on west bank of Manson Branch, 350 ft downstream of Hwy 24	6/7/00	5.7	0.07	17	8.1	NM
Manson Branch Seep West #3	Ground-water seep on west bank of Manson Branch, 700 ft downstream of Hwy 24	6/7/00	6.54	0.038	18.8	6.78	10

Notes:
pH = measure of acidity and alkalinity
mS/cm = milliSiemens per centimeter
°C = degrees Celsius
NTUs = Nephometric units
pH, specific conductance, temperature, dissolved oxygen (DO) and turbidity were measured in the field.
NM = Not measured
mg/L = milligrams per liter

Prepared by: J. Martin 7/10/00
Checked by: R. Quinn 7/19/00

TABLE 4: SUMMARY OF ANALYTICAL RESULTS FOR MUNICIPAL WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			LOUISVILLE WELL No. 1 LCW#1			LOUISVILLE WELL No. 2 LCW#6			LOUISVILLE WELL No. 3 LCW#3		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
Benzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloro-propane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,-Dichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 4: SUMMARY OF ANALYTICAL RESULTS FOR MUNICIPAL WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			LOUISVILLE WELL No. 1 LCW#1			LOUISVILLE WELL No. 2 LCW#6			LOUISVILLE WELL No. 3 LCW#3		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
p-Isopropyltoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-propylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	2	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
m-Xylene & p-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	250	250	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA

TABLE 4: SUMMARY OF ANALYTICAL RESULTS FOR MUNICIPAL WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			LOUISVILLE WELL No. 4 LCW#2			LOUISVILLE WELL No. 5 LCW#5			LOUISVILLE WELL No. 6 LCW#4		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
Benzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloro-propane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,-Dichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 4: SUMMARY OF ANALYTICAL RESULTS FOR MUNICIPAL WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			LOUISVILLE WELL No. 4 LCW#2			LOUISVILLE WELL No. 5 LCW#5			LOUISVILLE WELL No. 6 LCW#4		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
p-Isopropyltoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-propylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	2	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
m-Xylene & p-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	250	250	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA

Notes:
ug/L = micrograms per liter
ND = Not detected above the quantitation limit shown
LCW = Louisville City Well
NA = Constituent not analyzed
Municipal wells were sampled on 5/2/00

Prepared by: R.Quinn 5/12/00
Checked by: C. Williamson 5/17/00

TABLE 5: SUMMARY OF ANALYTICAL RESULTS FOR PRIVATE WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Ethel Clark 2134 Hwy 24 East			J Davis Jr. Charlie Road			Butch Dollar 1117 Hwy 24 East		
SAMPLE DATE				May 3, 2000			May 3, 2000			May 4, 2000		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
Benzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloro-propane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,-Dichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 5: SUMMARY OF ANALYTICAL RESULTS FOR PRIVATE WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Ethel Clark 2134 Hwy 24 East			J Davis Jr. Charlie Road			Butch Dollar 1117 Hwy 24 East		
SAMPLE DATE				May 3, 2000			May 3, 2000			May 4, 2000		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
Methylene chloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-propylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	2	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
m-Xylene & p-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	250	250	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA

TABLE 5: SUMMARY OF ANALYTICAL RESULTS FOR PRIVATE WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			R. Gillmore 2642 Hwy 24 East			AP Jones Jr. 2651 Hwy 24 East			H. Jones 2483 Hwy 24 East		
SAMPLE DATE				May 4, 2000			May 4, 2000			May 4, 2000		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
Benzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloro-propane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,-Dichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 5: SUMMARY OF ANALYTICAL RESULTS FOR PRIVATE WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			R. Gillmore 2642 Hwy 24 East			AP Jones Jr. 2651 Hwy 24 East			H. Jones 2483 Hwy 24 East		
SAMPLE DATE				May 4, 2000			May 4, 2000			May 4, 2000		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
Methylene chloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-propylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	2	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
m-Xylene & p-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	250	250	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA

TABLE 5: SUMMARY OF ANALYTICAL RESULTS FOR PRIVATE WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			W. Jones Cross J Woods Road			Mattie Kittles 1106 Anna Road			Pierre Smith 2226 Hwy 17 South		
SAMPLE DATE				May 3, 2000			May 4, 2000			May 3, 2000		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
Benzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloro-propane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,-Dichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 5: SUMMARY OF ANALYTICAL RESULTS FOR PRIVATE WATER-SUPPLY WELLS

SAMPLE LOCATION	Limit of Quantitation (ug/L)			W. Jones Cross J Woods Road			Mattie Kittles 1106 Anna Road			Pierre Smith 2226 Hwy 17 South		
SAMPLE DATE				May 3, 2000			May 4, 2000			May 3, 2000		
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs
CONSTITUENT (ug/L)												
Methylene chloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-propylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	2	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
m-Xylene & p-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	250	250	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA

Notes:
ug/L = micrograms per liter
ND = Not detected above the quantitation limit shown
Hwy = Highway
NA = Not Analyzed

Prepared by: R.Quinn 5/12/00
Checked by: C.Williamson 5/17/0

TABLE 6: SUMMARY OF ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Manson Branch #1 South side of Hwy 24 Bridge			Manson Branch #2 Ground-water Seep Down Slope of Thermo King			Manson Branch #3 Located 500 ft downstream of Hwy 24	Manson Branch #4 Located 700 ft downstream of Hwy 24
SAMPLE DATE				May 4, 2000			May 4, 2000			June 6-7, 2000	June 6-7, 2000
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	STL- North Canton	STL- North Canton
CONSTITUENT (ug/L)											
Benzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloro-propane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,1,-Dichloroethene	5	5	5	ND	ND	ND	69	50	47	ND	ND
cis-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	36	30	25	ND	ND
trans-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
n-propylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 6: SUMMARY OF ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Manson Branch #1 South side of Hwy 24 Bridge			Manson Branch #2 Ground-water Seep Down Slope of Thermo King			Manson Branch #3 Located 500 ft downstream of Hwy 24	Manson Branch #4 Located 700 ft downstream of Hwy 24
SAMPLE DATE				May 4, 2000			May 4, 2000			June 6-7, 2000	June 6-7, 2000
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	Lancaster Labs	STL- North Canton	Savannah Labs	STL- North Canton	STL- North Canton
CONSTITUENT (ug/L)											
Styrene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	5	5	ND	ND	ND	200	160	140	ND	ND
1,1,2-Trichloroethane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	5	5	ND	ND	ND	490	460	440	ND	ND
Trichlorofluoromethane	5	10	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	5	2	2	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
m-Xylene & p-Xylene	5	5	5	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	250	250	NA	ND	ND	NA	ND	ND	NA	ND	ND

TABLE 6: SUMMARY OF ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Manson Branch #5 Located 900 ft downstream of Hwy 24	Manson Branch #6 Located 1100 ft downstream of Hwy 24	Manson Branch #7 Located 1300 ft downstream of Hwy 24	Manson Branch #8 Located 1575 ft downstream of Hwy 24
SAMPLE DATE				June 6-7, 2000	June 6-7, 2000	June 6-7, 2000	June 6-7, 2000
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton
CONSTITUENT (ug/L)							
Benzene	5	5	5	ND	ND	ND	ND
Bromobenzene	5	5	5	ND	ND	ND	ND
Bromochloromethane	5	5	5	ND	ND	ND	ND
Bromodichloromethane	5	5	5	ND	ND	ND	ND
Bromoform	5	5	5	ND	ND	ND	ND
Bromomethane	5	10	5	ND	ND	ND	ND
n-Butylbenzene	5	5	5	ND	ND	ND	ND
sec-Butylbenzene	5	5	5	ND	ND	ND	ND
tert-Butylbenzene	5	5	5	ND	ND	ND	ND
Carbon tetrachloride	5	5	5	ND	ND	ND	ND
Chlorobenzene	5	5	5	ND	ND	ND	ND
Chlorodibromomethane	5	5	5	ND	ND	ND	ND
Chloroethane	5	10	5	ND	ND	ND	ND
Chloroform	5	5	5	ND	ND	ND	ND
Chloromethane	5	10	5	ND	ND	ND	ND
2-Chlorotoluene	5	5	5	ND	ND	ND	ND
4-Chlorotoluene	5	5	5	ND	ND	ND	ND
1,2-Dibromo-3-chloro-propane	5	10	5	ND	ND	ND	ND
1,2-Dibromoethane	5	5	5	ND	ND	ND	ND
Dibromomethane	5	5	5	ND	ND	ND	ND
1,2-Dichlorobenzene	5	5	5	ND	ND	ND	ND
1,3-Dichlorobenzene	5	5	5	ND	ND	ND	ND
1,4-Dichlorobenzene	5	5	5	ND	ND	ND	ND
Dichlorodifluoromethane	5	10	5	ND	ND	ND	ND
1,1-Dichloroethane	5	5	5	ND	ND	ND	ND
1,2-Dichloroethane	5	5	5	ND	ND	ND	ND
1,1,-Dichloroethene	5	5	5	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND
1,2-Dichloropropane	5	5	5	ND	ND	ND	ND
1,3-Dichloropropane	5	5	5	ND	ND	ND	ND
2,2-Dichloropropane	5	5	5	ND	ND	ND	ND
1,1-Dichloropropene	5	5	5	ND	ND	ND	ND
Ethylbenzene	5	5	5	ND	ND	ND	ND
Hexachlorobutadiene	5	5	5	ND	ND	ND	ND
Isopropylbenzene	5	5	5	ND	ND	ND	ND
p-Isopropyltoluene	5	5	5	ND	ND	ND	ND
Methylene chloride	5	5	5	ND	ND	ND	ND
Naphthalene	5	5	5	ND	ND	ND	ND
n-propylbenzene	5	5	5	ND	ND	ND	ND

TABLE 6: SUMMARY OF ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Manson Branch #5 Located 900 ft downstream of Hwy 24	Manson Branch #6 Located 1100 ft downstream of Hwy 24	Manson Branch #7 Located 1300 ft downstream of Hwy 24	Manson Branch #8 Located 1575 ft downstream of Hwy 24
SAMPLE DATE				June 6-7, 2000	June 6-7, 2000	June 6-7, 2000	June 6-7, 2000
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton
CONSTITUENT (ug/L)							
Styrene	5	5	5	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND
Tetrachloroethene	5	5	5	ND	ND	ND	ND
Toluene	5	5	5	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	5	5	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	5	5	ND	ND	ND	ND
1,1,1-Trichloroethane	5	5	5	ND	ND	ND	ND
1,1,2-Trichloroethane	5	5	5	ND	ND	ND	ND
Trichloroethene	5	5	5	ND	ND	ND	ND
Trichlorofluoromethane	5	10	5	ND	ND	ND	ND
1,2,3-Trichloropropane	5	5	5	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	5	5	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	5	5	ND	ND	ND	ND
Vinyl Chloride	5	2	2	ND	ND	ND	ND
o-Xylene	5	5	5	ND	ND	ND	ND
m-Xylene & p-Xylene	5	5	5	ND	ND	ND	ND
1,4-Dioxane	250	250	NA	ND	ND	ND	ND

TABLE 6: SUMMARY OF ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Manson Branch #9 Located 2900 ft upstream of Hwy 17	Manson Branch #10 Located 2100 ft upstream of Hwy 17	Manson Branch #11 Located 1200 ft upstream of Hwy 17	Manson Branch #12 Located at Hwy 17 bridge
SAMPLE DATE				June 6-7, 2000	June 6-7, 2000	June 6-7, 2000	June 6-7, 2000
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton
CONSTITUENT (ug/L)							
Benzene	5	5	5	ND	ND	ND	ND
Bromobenzene	5	5	5	ND	ND	ND	ND
Bromochloromethane	5	5	5	ND	ND	ND	ND
Bromodichloromethane	5	5	5	ND	ND	ND	ND
Bromoform	5	5	5	ND	ND	ND	ND
Bromomethane	5	10	5	ND	ND	ND	ND
n-Butylbenzene	5	5	5	ND	ND	ND	ND
sec-Butylbenzene	5	5	5	ND	ND	ND	ND
tert-Butylbenzene	5	5	5	ND	ND	ND	ND
Carbon tetrachloride	5	5	5	ND	ND	ND	ND
Chlorobenzene	5	5	5	ND	ND	ND	ND
Chlorodibromomethane	5	5	5	ND	ND	ND	ND
Chloroethane	5	10	5	ND	ND	ND	ND
Chloroform	5	5	5	ND	ND	ND	ND
Chloromethane	5	10	5	ND	ND	ND	ND
2-Chlorotoluene	5	5	5	ND	ND	ND	ND
4-Chlorotoluene	5	5	5	ND	ND	ND	ND
1,2-Dibromo-3-chloro-propane	5	10	5	ND	ND	ND	ND
1,2-Dibromoethane	5	5	5	ND	ND	ND	ND
Dibromomethane	5	5	5	ND	ND	ND	ND
1,2-Dichlorobenzene	5	5	5	ND	ND	ND	ND
1,3-Dichlorobenzene	5	5	5	ND	ND	ND	ND
1,4-Dichlorobenzene	5	5	5	ND	ND	ND	ND
Dichlorodifluoromethane	5	10	5	ND	ND	ND	ND
1,1-Dichloroethane	5	5	5	ND	ND	ND	ND
1,2-Dichloroethane	5	5	5	ND	ND	ND	ND
1,1,-Dichloroethene	5	5	5	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	2.5	5	ND	ND	ND	ND
1,2-Dichloropropane	5	5	5	ND	ND	ND	ND
1,3-Dichloropropane	5	5	5	ND	ND	ND	ND
2,2-Dichloropropane	5	5	5	ND	ND	ND	ND
1,1-Dichloropropene	5	5	5	ND	ND	ND	ND
Ethylbenzene	5	5	5	ND	ND	ND	ND
Hexachlorobutadiene	5	5	5	ND	ND	ND	ND
Isopropylbenzene	5	5	5	ND	ND	ND	ND
p-Isopropyltoluene	5	5	5	ND	ND	ND	ND
Methylene chloride	5	5	5	ND	ND	ND	ND
Naphthalene	5	5	5	ND	ND	ND	ND
n-propylbenzene	5	5	5	ND	ND	ND	ND

TABLE 6: SUMMARY OF ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Manson Branch #9 Located 2900 ft upstream of Hwy 17	Manson Branch #10 Located 2100 ft upstream of Hwy 17	Manson Branch #11 Located 1200 ft upstream of Hwy 17	Manson Branch #12 Located at Hwy 17 bridge
SAMPLE DATE				June 6-7, 2000	June 6-7, 2000	June 6-7, 2000	June 6-7, 2000
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton
CONSTITUENT (ug/L)							
Styrene	5	5	5	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	5	5	ND	ND	ND	ND
Tetrachloroethene	5	5	5	ND	ND	ND	ND
Toluene	5	5	5	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	5	5	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	5	5	ND	ND	ND	ND
1,1,1-Trichloroethane	5	5	5	ND	ND	ND	ND
1,1,2-Trichloroethane	5	5	5	ND	ND	ND	ND
Trichloroethene	5	5	5	ND	ND	ND	ND
Trichlorofluoromethane	5	10	5	ND	ND	ND	ND
1,2,3-Trichloropropane	5	5	5	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	5	5	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	5	5	ND	ND	ND	ND
Vinyl Chloride	5	2	2	ND	ND	ND	ND
o-Xylene	5	5	5	ND	ND	ND	ND
m-Xylene & p-Xylene	5	5	5	ND	ND	ND	ND
1,4-Dioxane	250	250	NA	ND	ND	ND	ND

TABLE 6: SUMMARY OF ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Manson Branch Seep West #1 Ground-water Seep Located 1020 ft upstream of Hwy 17	Manson Branch Seep West #2 Ground-water Seep Located 350 ft downstream of Hwy 24	Manson Branch Seep West #3 Ground-water Seep Located 700 Ft downstream of Hwy 24
SAMPLE DATE				June 6-7, 2000	June 6-7, 2000	June 6-7, 2000
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	STL- North Canton	STL- North Canton	STL- North Canton
CONSTITUENT (ug/L)						
Benzene	5	5	5	ND	ND	ND
Bromobenzene	5	5	5	ND	ND	ND
Bromochloromethane	5	5	5	ND	ND	ND
Bromodichloromethane	5	5	5	ND	ND	ND
Bromoform	5	5	5	ND	ND	ND
Bromomethane	5	10	5	ND	ND	ND
n-Butylbenzene	5	5	5	ND	ND	ND
sec-Butylbenzene	5	5	5	ND	ND	ND
tert-Butylbenzene	5	5	5	ND	ND	ND
Carbon tetrachloride	5	5	5	ND	ND	ND
Chlorobenzene	5	5	5	ND	ND	ND
Chlorodibromomethane	5	5	5	ND	ND	ND
Chloroethane	5	10	5	ND	ND	ND
Chloroform	5	5	5	ND	ND	ND
Chloromethane	5	10	5	ND	ND	ND
2-Chlorotoluene	5	5	5	ND	ND	ND
4-Chlorotoluene	5	5	5	ND	ND	ND
1,2-Dibromo-3-chloro-propane	5	10	5	ND	ND	ND
1,2-Dibromoethane	5	5	5	ND	ND	ND
Dibromomethane	5	5	5	ND	ND	ND
1,2-Dichlorobenzene	5	5	5	ND	ND	ND
1,3-Dichlorobenzene	5	5	5	ND	ND	ND
1,4-Dichlorobenzene	5	5	5	ND	ND	ND
Dichlorodifluoromethane	5	10	5	ND	ND	ND
1,1-Dichloroethane	5	5	5	ND	ND	ND
1,2-Dichloroethane	5	5	5	ND	ND	ND
1,1,-Dichloroethene	5	5	5	ND	ND	ND
cis-1,2-Dichloroethene	5	2.5	5	ND	3.8	ND
trans-1,2-Dichloroethene	5	2.5	5	ND	ND	ND
1,2-Dichloropropane	5	5	5	ND	ND	ND
1,3-Dichloropropane	5	5	5	ND	ND	ND
2,2-Dichloropropane	5	5	5	ND	ND	ND
1,1-Dichloropropene	5	5	5	ND	ND	ND
Ethylbenzene	5	5	5	ND	ND	ND
Hexachlorobutadiene	5	5	5	ND	ND	ND
Isopropylbenzene	5	5	5	ND	ND	ND
p-Isopropyltoluene	5	5	5	ND	ND	ND
Methylene chloride	5	5	5	ND	ND	ND
Naphthalene	5	5	5	ND	ND	ND
n-propylbenzene	5	5	5	ND	ND	ND

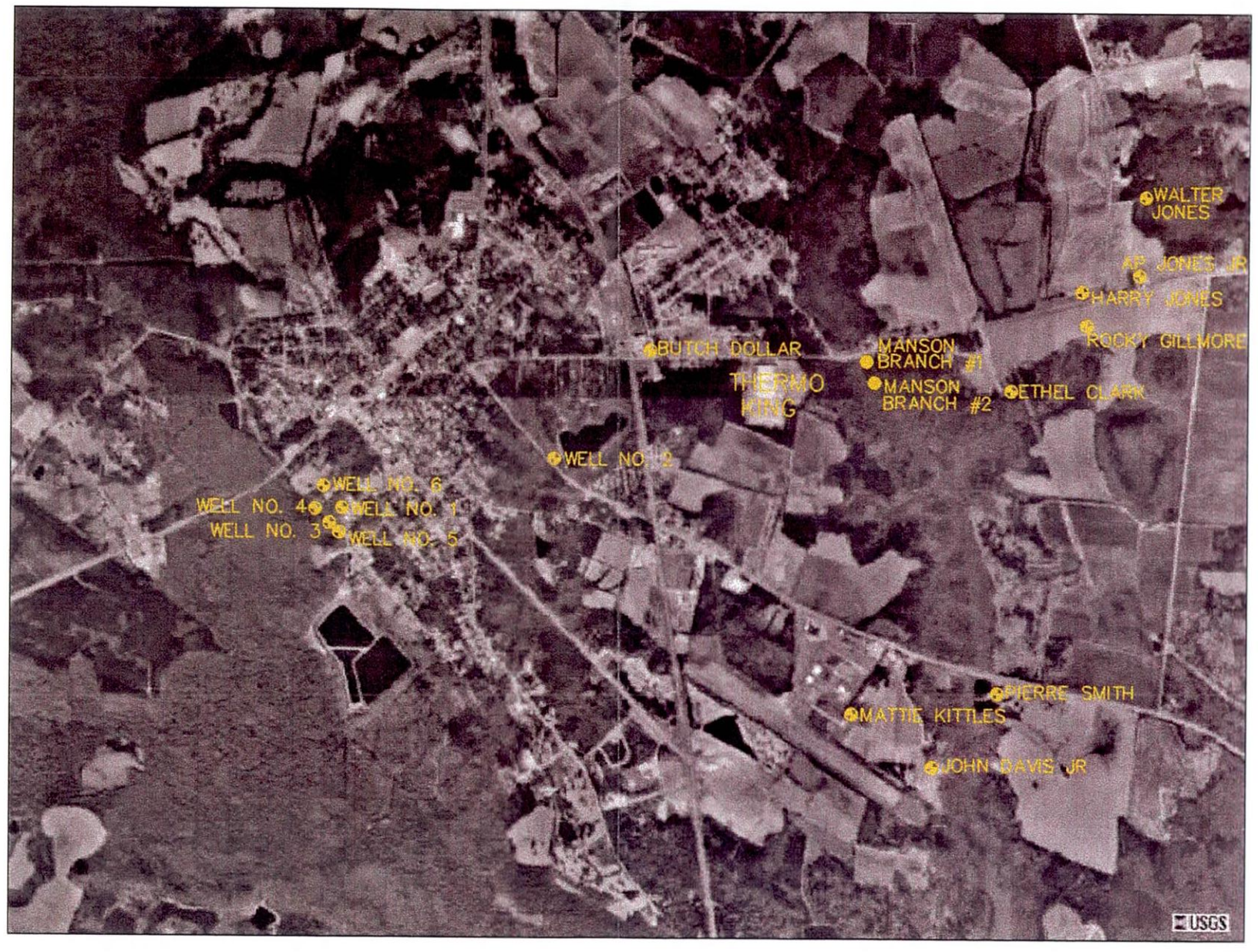
TABLE 6: SUMMARY OF ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

SAMPLE LOCATION	Limit of Quantitation (ug/L)			Manson Branch Seep West #1 Ground-water Seep Located 1020 ft upstream of Hwy 17	Manson Branch Seep West #2 Ground-water Seep Located 350 ft downstream of Hwy 24	Manson Branch Seep West #3 Ground-water Seep Located 700 Ft downstream of Hwy 24
SAMPLE DATE				June 6-7, 2000	June 6-7, 2000	June 6-7, 2000
LABORATORY	Lancaster Labs	STL- North Canton	Savannah Labs	STL- North Canton	STL- North Canton	STL- North Canton
CONSTITUENT (ug/L)						
Styrene	5	5	5	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	5	5	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	5	5	ND	ND	ND
Tetrachloroethene	5	5	5	ND	ND	ND
Toluene	5	5	5	ND	ND	ND
1,2,3-Trichlorobenzene	5	5	5	ND	ND	ND
1,2,4-Trichlorobenzene	5	5	5	ND	ND	ND
1,1,1-Trichloroethane	5	5	5	ND	ND	ND
1,1,2-Trichloroethane	5	5	5	ND	ND	ND
Trichloroethene	5	5	5	ND	ND	ND
Trichlorofluoromethane	5	10	5	ND	ND	ND
1,2,3-Trichloropropane	5	5	5	ND	ND	ND
1,2,4-Trimethylbenzene	5	5	5	ND	ND	ND
1,3,5-Trimethylbenzene	5	5	5	ND	ND	ND
Vinyl Chloride	5	2	2	ND	ND	ND
o-Xylene	5	5	5	ND	ND	ND
m-Xylene & p-Xylene	5	5	5	ND	ND	ND
1,4-Dioxane	250	250	NA	ND	ND	ND

Notes:
ug/L = micrograms per liter
ND = Not detected above the quantitation limit shown
Hwy = Highway
NA = Not Analyzed
Results shown for Manson Branch #2 analyzed by Savannah Labs are dilution results. The undiluted estimated results are: 1,1-dichloroethene 52 ug/L, cis-1,2-dichloroethene 27 ug/L, 1,1,1-trichloroethane 170 ug/L, and trichloroethene 640 ug/L.

Prepared by: E.McCray 6/12/00
Checked by: J.Martin 7/7/00

FIGURES



LEGEND:

- WATER WELL
- SURFACE WATER

SCALE

0 1/2 MI 1 MI

SOURCE: UNITED STATES GEOLOGICAL SURVEY, LOUISVILLE, GEORGIA AERIAL, SEPTEMBER 1996.

THERMO KING
LOUISVILLE, GEORGIA

LAW
LAWGIBB Group Member

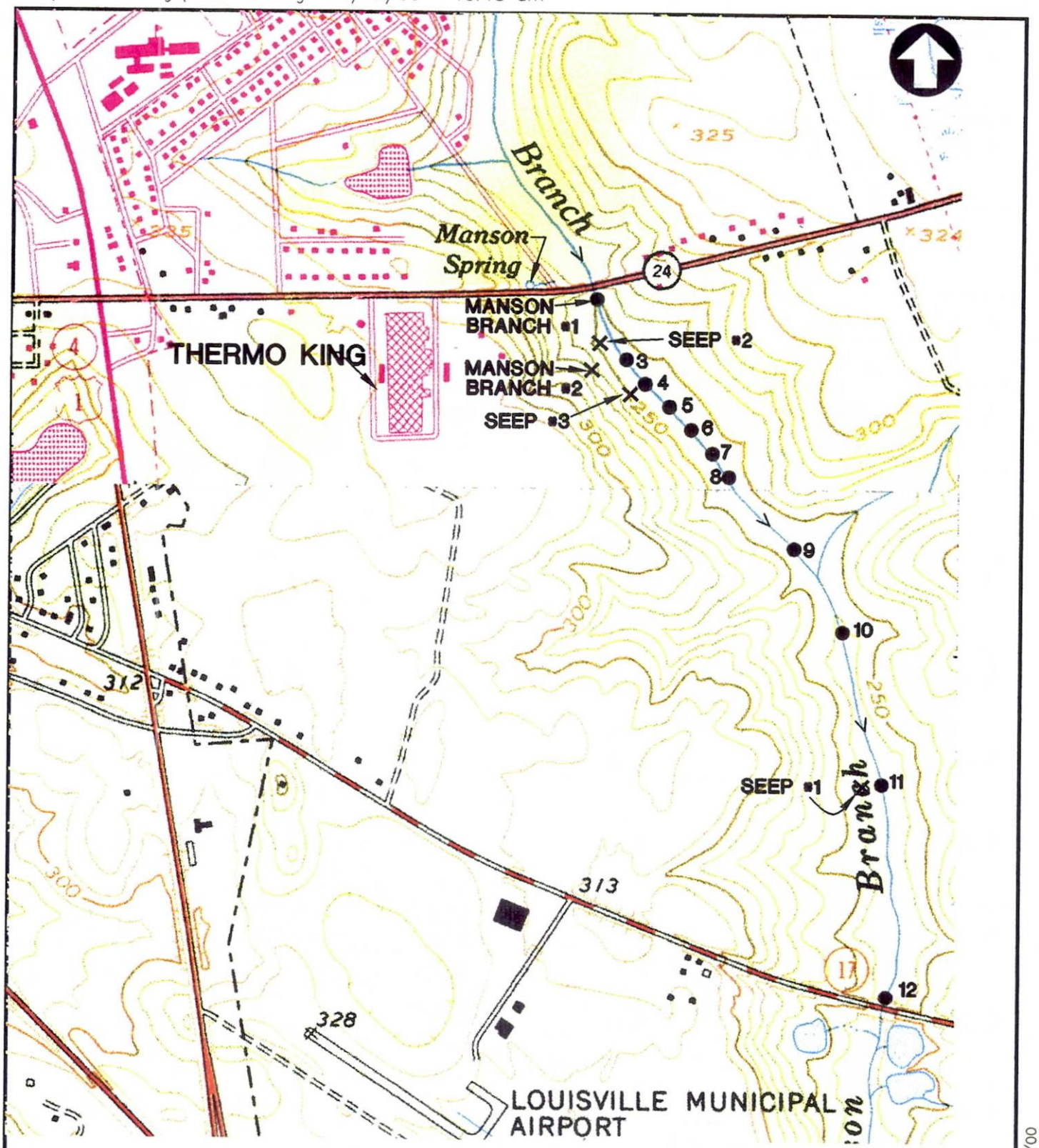
AERIAL PHOTOGRAPH
SHOWING WATER WELL AND
SURFACE WATER SAMPLING LOCATIONS

JOB NO. 12000-0-2050 FIGURE 1

PREPARED BY/DATE T MILLS 5/8/00
CHECKED BY/DATE R QUINN 5/22/00

J:\Thermo King\wwsamp.dwg 5/19/00 11:48 am

J:\Thermo King\SITE-TIF.dwg 8/16/00 10:18 am



SCALE IN FEET

0 1000 2000

MAP SOURCE: USGS TOPOGRAPHIC QUADRANGLE LOUISVILLE 1948 (PHOTOREVISED 1980) LOUISVILLE SOUTH 1973 (PHOTOINSPECTED 1981) MANSON BRANCH #1 AND #2 SAMPLES COLLECTED MAY 4, 2000. SURFACE WATER SAMPLES 3 THROUGH 12 AND SEEPS #1, #2, #3 COLLECTED JUNE 6-7, 2000.

LEGEND

- ● SURFACE WATER SAMPLE LOCATION
- × GROUNDWATER SEEP SAMPLE LOCATION
- V DIRECTION OF FLOW

THERMO KING LOUISVILLE, GEORGIA	LAW LAW@IBB Group Member	SURFACE WATER SAMPLE LOCATIONS JOB NO. 12000-0-2050 FIGURE 2

PREPARED BY/DATE T. MILLS 7/7/00
CHECKED BY/DATE R. QUINN 7/21/00

PHOTOGRAPHS

Photograph 1: Location near Manson Branch #3 and #4 samples, showing the Branch and vegetation

Photograph 2: Location near Manson Branch #7 and #8 samples, showing a stagnant pool and low flow in the Branch

Photograph 3: Manson Branch Seep #1

Photograph 4: Manson Branch Seep #3

Photograph 5: Wetlands along Manson Branch

Photograph 6: Beaver dam along Manson Branch

Laboratory Analytical Reports
Severn Trent Laboratories – North Canton, Ohio

Chain of Custody Record

Quanterra

12

JUA-4124

Client	Project Manager	Date	Chain Of Custody Number
LAW	Rhonda Quinn	5/2/00	59284
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 TownPointDr Suite 100	770 421 3400		
City / State / Zip Code	**Site Contact**		
Kennesaw / GA / 30144			
Project Name	**Carrier/Waybill Number**		
TK Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	Analysis: 8260										
LCW #1	5/2/00	1445	grab	40ml	VOA	3	HCl		3										
LCW #2	5/2/00	1535				3			3										
LCW #3	5/2/00	1510				3			3										
LCW #4	5/2/00	1550				3			3										
LCW #5	5/2/00	1520				3			3										
LCW #1 ms/msd	5/2/00	1445				3			3										
LCW #6	5/2/00	1630				3			3										
Pierre Smith	5/3/00	1045	grab	40ml	VOA	3	HCl		3										
Ethel Clark	5/3/00	1130	grab	40ml	VOA	3	HCl		3										
Duplicate	5/3/00	1500	grab	40ml	VOA	3	HCl		3										
Trip Blank	5/3/00	—				1			1										

Constituents & RLs per R. Quinn

RL 5/4/00

Special Instructions
VOC Constituents and Reporting limits per Rhonda Quinn at LAW

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Turn Around Time Required
☐ Normal ☑ Rush 1 week = 5 days

QC Level
☐ I. ☐ II. ☐ III. ☑ IV

Project Specific (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	Charles T. Mills III	5/3/00	1445			
2.	Rhonda N. Quinn	5/3/00	1530	Terry Burns	5-4-00	945/A
3.						

Comments

DISTRIBUTION: WHITE - Stays with Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

SAMPLE SUMMARY

A0E040196

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DCQJG	001	LCW#1	05/02/00	14:45
DCQK1	002	LCW#2	05/02/00	15:35
DCQK5	003	LCW#3	05/02/00	15:10
DCQK6	004	LCW#4	05/02/00	15:50
DCQK8	005	LCW#5	05/02/00	15:20
DCQKA	006	LCW#6	05/02/00	16:30
DCQKC	007	PIERRE SMITH	05/03/00	10:45
DCQLL	008	ETHEL CLARK	05/03/00	11:30
DCQLN	009	DUPLICATE	05/03/00	15:00
DCQLQ	010	TRIP BLANK	05/03/00	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

CASE NARRATIVE

The following report contains the analytical results for nine water samples and one quality control sample submitted to STL North Canton by Law Environmental, Inc. from the TK Louisville Site, project number 12000-0-2050. The samples were received on May 4, 2000, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at the laboratory at a temperature of 0.4° C.

GC/MS VOLATILES

The second source calibration check failed recovery criteria for 2-butanone and 2-hexanone. The initial calibration data was accepted for this instrument on May 7, 2000.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except for the common laboratory contaminants indicated below.

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

** for analyses run on TJA Trace ICP or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. The listed metals may be present in concentrations up to 2 times the reporting limit or must be twenty fold less than the results of the environmental samples. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. When these values fail to meet acceptance criteria, the data is reviewed to determine the cause. If, in the analyst's judgment, sample matrix effects are indicated, no corrective action is performed. Otherwise, the MS/MSD and the environmental sample used to prepare them are reprepared and reanalyzed.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample are spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported. If the LCS, LCSD, or the Method Blank surrogates fail to meet recovery criteria (exception for dilutions), the entire batch of samples is reprepared and reanalyzed.

If the surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank and the associated sample(s) are ND, the batch is acceptable. If the surrogate recoveries are outside criteria for environmental or MS/MSD samples, the batch may be acceptable based on the analyst's judgment that sample matrix effects are indicated.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB, PAH, and Herbicide methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

STL North Canton, Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225) – Florida CompQAPP (#890651G), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190), NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E040196 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQJG101 Date Extracted: 05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQJG101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQJG101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK1101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK1101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK1101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK5101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK5101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK5101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK6101 Date Extracted:05/08/00
Dilution factor: 1 Date Analyzed: 05/08/00
Moisture %:

QC Batch: 0130313

Client Sample Id: LCW#4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK6101 Date Extracted:05/08/00
Dilution factor: 1 Date Analyzed: 05/08/00
Moisture %:

QC Batch: 0130313

Client Sample Id: LCW#4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK6101 Date Extracted:05/08/00
Dilution factor: 1 Date Analyzed: 05/08/00
Moisture %:

QC Batch: 0130313

Client Sample Id: LCW#4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK8101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK8101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQK8101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQKA101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQKA101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQKA101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: LCW#6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQKC101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: PIERRE SMITH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQKC101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: PIERRE SMITH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQKC101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: PIERRE SMITH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQLL101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: ETHEL CLARK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQLL101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: ETHEL CLARK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQLL101 Date Extracted:05/07/00
Dilution factor: 1 Date Analyzed: 05/07/00
Moisture %:

QC Batch: 0129211

Client Sample Id: ETHEL CLARK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQLN101 Date Extracted:05/08/00
Dilution factor: 1 Date Analyzed: 05/08/00
Moisture %:

QC Batch: 0130313

Client Sample Id: DUPLICATE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E040196 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DCQLN101
Dilution factor: 1
Moisture %:

Date Received: 05/04/00
Date Extracted: 05/08/00
Date Analyzed: 05/08/00

QC Batch: 0130313

Client Sample Id: DUPLICATE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQLN101 Date Extracted:05/08/00
Dilution factor: 1 Date Analyzed: 05/08/00
Moisture %:

QC Batch: 0130313

Client Sample Id: DUPLICATE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQLQ101 Date Extracted:05/08/00
Dilution factor: 1 Date Analyzed: 05/08/00
Moisture %:

QC Batch: 0130313

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQLQ101 Date Extracted:05/08/00
Dilution factor: 1 Date Analyzed: 05/08/00
Moisture %:

QC Batch: 0130313

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E040196 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/04/00
Work Order: DCQLQ101 Date Extracted:05/08/00
Dilution factor: 1 Date Analyzed: 05/08/00
Moisture %:

QC Batch: 0130313

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

[redacted]

Chain of Custody Record

Quanterra

UA-4124

Client: LAW	Project Manager: Rhonda Quinn	Date: 5/3/00 + 5/4/00	Chain Of Custody Number: 59285
Address: 3200 TownPoint Dr	Telephone Number (Area Code)/Fax Number: 770 421 3516 Fax 770 4213486	Lab Number:	Page 1 of 1
City: Kennesaw State: GA Zip Code: 30144	Site Contact:		
Project Name: TK - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	Analysis: VOC 8260
Manson Branch #1	5/3/00	1600	Grab	40 ml	VOA	3	HCl		3
Manson Branch #2	5/3/00	1620	Grab	40 ml	VOA	3	HCl		3
W. Jones	5/3/00	1750	Grab	40 ml	VOA	3	HCl		3
J Davis Jr	5/3/00	1820	Grab	40 ml	VOA	3	HCl		3
AP Jones Jr	5/4/00	1100	Grab	40 ml	VOA	3	HCl		3
Butch Dollar	5/4/00	1110	Grab	40 ml	VOA	3	HCl		3
Mattie Kittles	5/4/00	1145	Grab	40 ml	VOA	3	HCl		3
H. Jones	5/4/00	1245	Grab	40 ml	VOA	3	HCl		3
Trip Blank	5/4/00	1300				1			1

Special Instructions: VOC Constituents + Reporting limits per Rhonda Quinn

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Turn Around Time Required: ☐ Normal ☒ Rush 5 days

QC Level: ☐ I. ☐ II. ☐ III. IV

Project Specific (Specify):

	Date	Time
1. Relinquished By: Rhonda N. Quinn	5/4/00	1500
2. Relinquished By:		
3. Relinquished By:		

	Date	Time
1. Received By:		
2. Received By: [signature]	5/5/00	905
3. Received By:		

Comments:

DISTRIBUTION: WHITE - Stays with Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

Quanterra

16

JA-4124

Client: LAW	Project Manager: Rhonda Quinn	Date: 5-4-00	Chain Of Custody Number: 59282
Address: 3200 Town Point D	Telephone Number (Area Code)/Fax Number: 770 421 3516 770 4213486	Lab Number:	Page 1 of 1
City: Kennesaw	State: GA	Zip Code: 30144	Site Contact:
Project Name: TK-Louisville			Carrier/Waybill Number:
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	Analysis: VOCs 8260
R Gillmore	5-4-00	1650	Water	40ml	G		HCl		3
Trip Blank			water	40ml	G		HCl		1

Special Instructions: VOC Constituents and reporting limits per Rhonda Quinn

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Turn Around Time Required: ☐ Normal ☒ Rush 5 day

QC Level: ☐ I. ☐ II. ☐ III. ☒ IV

Project Specific (Specify):

1. Relinquished By: Charles F. Mill	Date: 5/5/00	Time: 0720	1. Received By:	Date: 5-5-00	Time: 310 pm
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments:

DISTRIBUTION: WHITE - Stays with Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

SAMPLE SUMMARY

A0E050218

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DCTEK	001	MANSON BRANCH #1	05/03/00	16:00
DCTEP	002	MANSON BRANCH #2	05/03/00	16:20
DCTEQ	003	W. JONES	05/03/00	17:50
DCTER	004	J DAVIS JR	05/03/00	18:20
DCTET	005	AP JONES JR	05/04/00	11:00
DCTEV	006	BUTCH DOLLAR	05/04/00	11:10
DCTF0	007	MATTIE KILTLES	05/04/00	11:45
DCTF1	008	H. JONES	05/04/00	12:45
DCTF2	009	TRIP BLANK	05/04/00	13:00
DCTF3	010	R GILLMORE	05/04/00	16:50
DCTF6	011	TRIP BLANK	05/04/00	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

CASE NARRATIVE

The following report contains the analytical results for nine water samples and two quality control samples submitted to STL North Canton by Law Environmental, Inc. from the TK-Louisville Site. The samples were received on May 5, 2000, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided by facsimile transmission to Paul Brafford and Rhonda Quinn on May 10, 2000.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at the laboratory at temperatures of 2.2 and 0.4° C.

GC/MS VOLATILES

The second source calibration check failed recovery criteria for 2-butanone and 2-hexanone. The initial calibration data was accepted for this instrument on May 7, 2000.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except for the common laboratory contaminants indicated below.

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

** for analyses run on TJA Trace ICP or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. The listed metals may be present in concentrations up to 2 times the reporting limit or must be twenty fold less than the results of the environmental samples. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. When these values fail to meet acceptance criteria, the data is reviewed to determine the cause. If, in the analyst's judgment, sample matrix effects are indicated, no corrective action is performed. Otherwise, the MS/MSD and the environmental sample used to prepare them are reprepared and reanalyzed.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample are spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported. If the LCS, LCSD, or the Method Blank surrogates fail to meet recovery criteria (exception for dilutions), the entire batch of samples is reprepared and reanalyzed.

If the surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank and the associated sample(s) are ND, the batch is acceptable. If the surrogate recoveries are outside criteria for environmental or MS/MSD samples, the batch may be acceptable based on the analyst's judgment that sample matrix effects are indicated.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB, PAH, and Herbicide methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

STL North Canton, Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225) – Florida CompQAPP (#890651G), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190), NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEK101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEK101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEK101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEP101 Date Extracted: 05/09/00
Dilution factor: 3.33 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	17	U
71-43-2	Benzene	17	U
108-86-1	Bromobenzene	17	U
74-97-5	Bromochloromethane	17	U
75-27-4	Bromodichloromethane	17	U
75-25-2	Bromoform	17	U
74-83-9	Bromomethane	33	U
104-51-8	n-Butylbenzene	17	U
135-98-8	sec-Butylbenzene	17	U
98-06-6	tert-Butylbenzene	17	U
56-23-5	Carbon tetrachloride	17	U
108-90-7	Chlorobenzene	17	U
124-48-1	Chlorodibromomethane	17	U
75-00-3	Chloroethane	33	U
67-66-3	Chloroform	17	U
74-87-3	Chloromethane	33	U
95-49-8	2-Chlorotoluene	17	U
106-43-4	4-Chlorotoluene	17	U
96-12-8	1,2-Dibromo-3-chloropropane	33	U
106-93-4	1,2-Dibromoethane	17	U
74-95-3	Dibromomethane	17	U
95-50-1	1,2-Dichlorobenzene	17	U
541-73-1	1,3-Dichlorobenzene	17	U
106-46-7	1,4-Dichlorobenzene	17	U
75-71-8	Dichlorodifluoromethane	33	U
75-34-3	1,1-Dichloroethane	17	U
107-06-2	1,2-Dichloroethane	17	U
156-59-2	cis-1,2-Dichloroethene	30	

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEP101 Date Extracted:05/09/00
Dilution factor: 3.33 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	8.3	U
75-35-4	1,1-Dichloroethene	50	
78-87-5	1,2-Dichloropropane	17	U
142-28-9	1,3-Dichloropropane	17	U
594-20-7	2,2-Dichloropropane	17	U
563-58-6	1,1-Dichloropropene	17	U
123-91-1	1,4-Dioxane	830	U
100-41-4	Ethylbenzene	17	U
87-68-3	Hexachlorobutadiene	17	U
98-82-8	Isopropylbenzene	17	U
99-87-6	p-Isopropyltoluene	17	U
75-09-2	Methylene chloride	17	U
91-20-3	Naphthalene	17	U
103-65-1	n-Propylbenzene	17	U
630-20-6	1,1,1,2-Tetrachloroethane	17	U
79-34-5	1,1,2,2-Tetrachloroethane	17	U
127-18-4	Tetrachloroethene	17	U
108-88-3	Toluene	17	U
87-61-6	1,2,3-Trichlorobenzene	17	U
120-82-1	1,2,4-Trichlorobenzene	17	U
71-55-6	1,1,1-Trichloroethane	160	
79-00-5	1,1,2-Trichloroethane	17	U
79-01-6	Trichloroethene	460	
75-69-4	Trichlorofluoromethane	33	U
96-18-4	1,2,3-Trichloropropane	17	U
95-63-6	1,2,4-Trimethylbenzene	17	U
108-67-8	1,3,5-Trimethylbenzene	17	U
75-01-4	Vinyl chloride	6.7	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEP101 Date Extracted: 05/09/00
Dilution factor: 3.33 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	17	U
95-47-6	o-Xylene	8.3	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DCTEQ101
Dilution factor: 1
Moisture %:

Date Received: 05/05/00
Date Extracted: 05/09/00
Date Analyzed: 05/09/00

QC Batch: 0131259

Client Sample Id: W. JONES

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEQ101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: W. JONES

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEQ101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: W. JONES

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTER101 Date Extracted: 05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: J DAVIS JR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DCTER101
Dilution factor: 1
Moisture %:

Date Received: 05/05/00
Date Extracted:05/09/00
Date Analyzed: 05/09/00

QC Batch: 0131259

Client Sample Id: J DAVIS JR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTER101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: J DAVIS JR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTET101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: AP JONES JR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTET101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: AP JONES JR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTET101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: AP JONES JR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Lab Sample ID: A0E050218 006

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DCTEV101
Dilution factor: 1
Moisture %:

Date Received: 05/05/00
Date Extracted: 05/09/00
Date Analyzed: 05/09/00

QC Batch: 0131259

Client Sample Id: BUTCH DOLLAR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	10	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	10	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene		

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL
Work Order: DCTEV101
Dilution factor: 1
Moisture %:

Date Received: 05/05/00
Date Extracted: 05/09/00
Date Analyzed: 05/09/00

QC Batch: 0131259

Client Sample Id: BUTCH DOLLAR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEV101 Date Extracted: 05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: BUTCH DOLLAR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF0101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MATTIE KILTLES

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF0101 Date Extracted: 05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MATTIE KILTLES

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF0101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MATTIE KILTLES

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF1101 Date Extracted: 05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: H. JONES

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF1101 Date Extracted: 05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: H. JONES

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF1101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: H. JONES

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF2101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF2101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF2101 Date Extracted: 05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF3101 Date Extracted: 05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: R GILLMORE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	10	U
75-00-3	Chloroethane	5.0	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	10	U
75-71-8	Dichlorodifluoromethane	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene		

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF3101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: R GILLMORE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF3101 Date Extracted: 05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: R GILLMORE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF6101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF6101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1;1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTF6101 Date Extracted: 05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Laboratory Analytical Reports
Severn Trent Laboratories – Savannah, Georgia

Serial Number 004292

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Savannah Laboratories
a division of Severn Trent Laboratories, Inc

- (X) 5102 LaRoche Avenue, Savannah, GA 31404 — Phone: (912) 354-7858 — Fax: (912) 352-0165
- ( ) 2846 Industrial Plaza Drive, Tallahassee, FL 32301 — Phone: (850) 878-3994 — Fax: (850) 878-9504
- ( ) 900 Lakeside Drive, Mobile, AL 36693 — Phone: (334) 666-6633 — Fax: (334) 666-6696
- ( ) 6712 Benjamin Rd., Suite 100, Tampa, FL 33634 — Phone: (813) 885-7427 — Fax: (813) 885-7049

PROJECT REFERENCE: TK Louisville	PROJECT NO.: 12000-0-2050	PROJECT LOCATION (STATE): GA	PAGE ___ OF ___
STL (LAB) PROJECT MANAGER: Gloria Fullwood	P.O. NUMBER:	CONTRACT NO.:	STANDARD REPORT DELIVERY ( ) DATE DUE ___
CLIENT (SITE) PM: Rhonda Quinn	CLIENT PHONE: 770 421-3516	CLIENT FAX: 770-421-3486	EXPEDITED REPORT DELIVERY (SURCHARGE) ( ) DATE DUE ___
CLIENT NAME: LAW	CLIENT EMAIL:		
CLIENT ADDRESS: 3200 Town Point Dr Suite 100, Kennesaw GA 30144			NUMBER OF COOLERS SUBMITTED PER SHIPMENT:
COMPANY CONTRACTING THIS WORK (if applicable):			

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ETC)

REQUIRED ANALYSES: 8260

NUMBER OF CONTAINERS SUBMITTED

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ETC)	8260	REMARKS
5/2/00	1445	LCW #1 ~~MS/MSD~~ ENG	G	✓				3	
5/2/00	1535	LCW #2	G	✓				3	
5/2/00	1510	LCW #3	G	✓				3	
5/2/00	1550	LCW #4	G	✓				3	
CTM 5/2/00 ~~5/2/00~~	1520	LCW #5	G	✓				3	
5/2/00	1445	LCW #1 MS/MSD	G	✓				3	
5/2/00	1630	LCW #6	G	✓				3	
5/2/00	1645	Trip Blank						3	

Constituents per R. Quinn

VOC Constituents and Reporting Limits per Rhonda Quinn

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Charles F. Mills III	5/3/00	1445	Rhonda N Quinn	5/3/00	1530			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL-SL LOG NO.	LABORATORY REMARKS:
C. Vanagas	5/4/00	9:00	YES ✓ NO		SD-02886	

ORIGINAL

Serial Number 004288

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Savannah Laboratories
a division of Severn Trent Laboratories, Inc.

- ✓ 5102 LaRoche Avenue, Savannah, GA 31404 — Phone: (912) 354-7858 — Fax: (912) 352-0165
- 2846 Industrial Plaza Drive, Tallahassee, FL 32301 — Phone: (850) 878-3994 — Fax: (850) 878-9504
- 900 Lakeside Drive, Mobile, AL 36693 — Phone: (334) 666-6633 — Fax: (334) 666-6696
- 6712 Benjamin Rd., Suite 100, Tampa, FL 33634 — Phone: (813) 885-7427 — Fax: (813) 885-7049

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
TK Louisville	12000-0-2050	GA
STL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Gloria Folwood		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Rhonda Quinn	770 421 3516	770 421 3486
CLIENT NAME	CLIENT EMAIL	
LAW		
CLIENT ADDRESS		
3200 Town Point Dr Suite 100, Kennesaw GA 30144		
COMPANY CONTRACTING THIS WORK (if applicable):		

PAGE ____ OF ____

STANDARD REPORT DELIVERY ○

DATE DUE ____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE ____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ETC)	REQUIRED ANALYSES: 8260	NUMBER OF CONTAINERS SUBMITTED	REMARKS
5/3/00	1045	Pierre Smith	G	✓					3	
5/3/00	1130	Ethel Clark	G	✓					3	
5/3/00	1500	Duplicate	G	✓					3	
5/3/00		Trip Blank							3	

VOC constituents and reporting limits per Rhonda Quinn

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Mark T. Miller III	5/3/00	1445	Rhonda N. Quinn	5/3/00	1530			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL-SL LOG NO.	LABORATORY REMARKS:
C. Vaneyn	5/4/00	9:10 V	YES ✓ NO		50-0886	

ORIGINAL

Serial Number 004289

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Savannah Laboratories
a division of Severn Trent Laboratories, Inc

- ☑ 5102 LaRoche Avenue, Savannah, GA 31404 — Phone: (912) 354-7858 — Fax: (912) 352-0165
- ○ 2846 Industrial Plaza Drive, Tallahassee, FL 32301 — Phone: (850) 878-3994 — Fax: (850) 878-9504
- ○ 900 Lakeside Drive, Mobile, AL 36693 — Phone: (334) 666-6633 — Fax: (334) 666-6696
- ○ 6712 Benjamin Rd., Suite 100, Tampa, FL 33634 — Phone: (813) 885-7427 — Fax: (813) 885-7049

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
TK-Louisville		GA
STL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
~~Rhonda Quinn~~	12000-0-2050	
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Rhonda Quinn	7704213516	7704213486
CLIENT NAME	CLIENT EMAIL	
Rhonda Quinn		
CLIENT ADDRESS		
3200 Town Point Dr Kennesaw GA 30144		
COMPANY CONTRACTING THIS WORK (if applicable):		
LAW		

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ETC)

REQUIRED ANALYSES: VOCs

PAGE 1 OF 2

STANDARD REPORT DELIVERY ○

DATE DUE

EXPEDITED REPORT DELIVERY (SURCHARGE) ☒

DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ETC)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
5/3/00	1600	Monson Branch #1	G	✓				3	
5/3/00	1620	Monson Branch # 2	G	✓				3	
5/3/00	1750	W. Jones	G	✓				3	
5/3/00	1820	J Davis Jr	G	✓				3	
5/4/00	1100	AP Jones Jr	G	✓				3	
5/4/00	1110	Butch Dollar	G	✓				3	
5/4/00	1300	Trip Blank						1	
		VOC constituents and reporting limits per Rhonda Quinn							

RUSH

ORIGINAL

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Rhonda N. Quinn	5/4/00	1500						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL-SL LOG NO.	LABORATORY REMARKS:
J Swafford	5/5/00	12:10	(YES) NO		5002929	

Serial Number 004290

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Savannah Laboratories
a division of Severn Trent Laboratories, Inc.

- ✓ 5102 LaRoche Avenue, Savannah, GA 31404 — Phone: (912) 354-7858 — Fax: (912) 352-0165
- ○ 2846 Industrial Plaza Drive, Tallahassee, FL 32301 — Phone: (850) 878-3994 — Fax: (850) 878-9504
- ○ 900 Lakeside Drive, Mobile, AL 36693 — Phone: (334) 666-6633 — Fax: (334) 666-6696
- ○ 6712 Benjamin Rd., Suite 100, Tampa, FL 33634 — Phone: (813) 885-7427 — Fax: (813) 885-7049

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
TK Louisville	12000-0-2050	
STL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Gloria Fulwood		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Rhonda Quinn	770421 3516	770421 3486
CLIENT NAME	CLIENT EMAIL	
Rhonda Quinn		
CLIENT ADDRESS		
3200 Town Point Dr Suite 100 Kennesaw GA 30144		
COMPANY CONTRACTING THIS WORK (if applicable):		
LAW		

PAGE 2 OF 2

STANDARD REPORT DELIVERY ○

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ⊘

DATE DUE 5 day

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX TYPE: AQUEOUS (WATER)	MATRIX TYPE: SOLID OR SEMISOLID	MATRIX TYPE: AIR	MATRIX TYPE: NONAQUEOUS LIQUID (OIL, SOLVENT, ETC)	REQUIRED ANALYSES: 8260 VOC	NUMBER OF CONTAINERS SUBMITTED	REMARKS
5/4/00	1145	Mattie Kittles	G		✓				3	
5/4/00	1245	H. Jones	G		✓				3	
5/4/00	1300	Trip Blank							1	

VOC constituents and reporting limits per Rhonda Quinn

RUSH

ORIGINAL

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Rhonda M. Quinn	5/4/00	1500						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL-SL LOG NO.	LABORATORY REMARKS:
F Swafford	5/5/00	12:10	~~YES~~ NO		5002929	

Serial Number 004291

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Savannah Laboratories
a division of Severn Trent Laboratories, Inc.

⊗ 5102 LaRoche Avenue, Savannah, GA 31404 Phone: (912) 354-7858 Fax: (912) 352-0165
○ 2846 Industrial Plaza Drive, Tallahassee, FL 32301 Phone: (850) 878-3994 Fax: (850) 878-9504
○ 900 Lakeside Drive, Mobile, AL 36693 Phone: (334) 666-6633 Fax: (334) 666-6696
○ 6712 Benjamin Rd., Suite 100, Tampa, FL 33634 Phone: (813) 885-7427 Fax: (813) 885-7049

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
TK- Louisville	12000-0-2050	GA
STL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Gloria Fulwood	12000-0-2050	
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Rhonda Quinn	770-421-3516	770 421 3486
CLIENT NAME	CLIENT EMAIL	
LAW		
CLIENT ADDRESS		
3200 Town Point Dr Kennesaw, GA 30144		
COMPANY CONTRACTING THIS WORK (if applicable):		
L4W		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ○

DATE DUE .....

EXPEDITED REPORT DELIVERY (SURCHARGE) Ⓓ

DATE DUE 5 days

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX TYPE: AQUEOUS (WATER)	MATRIX TYPE: SOLID OR SEMISOLID	MATRIX TYPE: AIR	MATRIX TYPE: NONAQUEOUS LIQUID (OIL, SOLVENT, ETC)	REQUIRED ANALYSES: VOCs 8260	REMARKS
5-4-00	1650	R Gillmore	G	✓				3	
		Trip Blank	G	✓				3	

RUSH

ORIGINAL

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Rhonda N Quinn	5/5/00	1150						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL-SL LOG NO.	LABORATORY REMARKS:
J Stafford	5/6/00	11:00	(YES) NO		5002967	

Savannah Laboratories
a division of Severn Trent Laboratories Inc.

CASE NARRATIVE

SDG# TKL01
SL PROJECT#s S002886, S002929, S002967

Volatiles by GC/MS (8260B) Fraction

The following samples were analyzed according to SW-846 Method 8260B.

SL#	SAMPLE DESCRIPTION	MATRIX
S002886*1	LCW #1	Liquid
S002886*2	LCW #2	Liquid
S002886*3	LCW #3	Liquid
S002886*4	LCW #4	Liquid
S002886*5	LCW #5	Liquid
S002886*6	LCW #6	Liquid
S002886*7	Trip Blank (5/2/00)	Liquid
S002886*8	Pierre Smith	Liquid
S002886*9	Ethel Clark	Liquid
S002886*10	Duplicate	Liquid
S002886*11	Trip Blank (5/3/00)	Liquid
S002929*1	Monson Branch #1	Liquid
S002929*2	Monson Branch #2	Liquid
S002929*3	W. Jones	Liquid
S002929*4	J Davis Jr.	Liquid
S002929*5	AD Jones Jr.	Liquid
S002929*6	Butch Dollar	Liquid
S002929*7	Trip Blank (5/4/00)	Liquid
S002929*8	Mattie Kittles	Liquid
S002929*9	H Jones	Liquid
S002929*10	Trip Blank (5/4/00)	Liquid
S002967*1	R.Gilmore	Liquid
S002967*2	Trip Blank (5/4/00)	Liquid

Sample S002886-1 (LCW #1) was the designated matrix spike/matrix spike duplicate.

Due to the abundance of Trichloroethene present in the sample, S002929-2 was analyzed at a secondary dilution of 1:5. Results concurred and both sets of data have been provided.

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-1

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 00922

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-1

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0922

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-2

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0923

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-2

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0923

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-3

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #3

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0924

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-3

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #3

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0924

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-4

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #4

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0925

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-4

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #4

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0925

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-5

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #5

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0926

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-5

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #5

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0926

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-6

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #6

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0927

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-6

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: LCW #6

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0927

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-7

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/2/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0918

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-7

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/2/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0918

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-8

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: PIERRE SMITH

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0928

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-8

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: PIERRE SMITH

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 00928

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-9

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: ETHEL CLARK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0929

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-9

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: ETHEL CLARK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0929

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-10

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: DUPLICATE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0930

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-10

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: DUPLICATE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0930

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-11

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/3/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0919

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02886-11

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/3/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0919

Level: (low/med) LOW Date Received: 05/04/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-1

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0931

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-1

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0931

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-2

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0932

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	52	
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	27	
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	170	
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	640	E
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-2

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0932

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-2DL

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0951

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	25	U
74-87-3	CHLOROMETHANE	25	U
75-01-4	VINYL CHLORIDE	10	U
74-83-9	BROMOMETHANE	25	U
75-00-3	CHLOROETHANE	25	U
75-69-4	TRICHLOROFLUOROMETHANE	25	U
75-35-4	1 1-DICHLOROETHENE	47	D
75-09-2	METHYLENE CHLORIDE	25	U
156-60-5	trans-1 2-DICHLOROETHENE	25	U
75-34-3	1 1-DICHLOROETHANE	25	U
594-20-7	2 2-DICHLOROPROPANE	25	U
156-59-2	cis-1 2-DICHLOROETHENE	25	D
67-66-3	CHLOROFORM	25	U
74-97-5	BROMOCHLOROMETHANE	25	U
71-55-6	1 1 1-TRICHLOROETHANE	140	D
56-23-5	CARBON TETRACHLORIDE	25	U
563-58-6	1 1-DICHLOROPROPENE	25	U
71-43-2	BENZENE	25	U
107-06-2	1 2-DICHLOROETHANE	25	U
79-01-6	TRICHLOROETHENE	440	D
78-87-5	1 2-DICHLOROPROPANE	25	U
75-27-4	BROMODICHLOROMETHANE	25	U
74-95-3	DIBROMOMETHANE	25	U
108-88-3	TOLUENE	25	U
79-00-5	1 1 2-TRICHLOROETHANE	25	U
127-18-4	TETRACHLOROETHENE	25	U
142-28-9	1 3-DICHLOROPROPANE	25	U
124-48-1	DIBROMOCHLOROMETHANE	25	U
106-93-4	1 2-DIBROMOETHANE	25	U
108-90-7	CHLOROBENZENE	25	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	25	U
100-41-4	ETHYL BENZENE	25	U
108-38-3	m,p-XYLENE	25	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-2DL

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0951

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	25	U
100-42-5	STYRENE	25	U
75-25-2	BROMOFORM	25	U
98-82-8	ISOPROPYLBENZENE	25	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	25	U
108-86-1	BROMOBENZENE	25	U
96-18-4	1 2 3-TRICHLOROPROPANE	25	U
103-65-1	n-PROPYLBENZENE	25	U
95-49-8	2-CHLOROTOLUENE	25	U
108-67-8	1 3 5-TRIMETHYLBENZENE	25	U
106-43-4	4-CHLOROTOLUENE	25	U
98-06-6	tert-BUTYLBENZENE	25	U
95-63-6	1 2 4-TRIMETHYLBENZENE	25	U
135-98-8	sec-BUTYLBENZENE	25	U
99-87-6	p-ISOPROPYLTOLUENE	25	U
541-73-1	1 3-DICHLOROBENZENE	25	U
106-46-7	1 4-DICHLOROBENZENE	25	U
104-51-8	n-BUTYLBENZENE	25	U
95-50-1	1 2-DICHLOROBENZENE	25	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	25	U
120-82-1	1 2 4-TRICHLOROBENZENE	25	U
87-68-3	HEXACHLOROBUTADIENE	25	U
91-20-3	NAPHTHALENE	25	U
87-61-6	1 2 3-TRICHLOROBENZENE	25	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-3

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: W. JONES

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0933

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-3

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: W. JONES

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 00933

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-4

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: J DAVIS JR.

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0934

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-4

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: J DAVIS JR.

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0934

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-5

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: AD JONES JR.

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0944

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-5

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: AD JONES JR.

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 00944

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-6

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: BUTCH DOLLAR

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 00945

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-6

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: BUTCH DOLLAR

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0945

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-7

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/4/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0920

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-7

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/4/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0920

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-8

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MATTIE KITTLES

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0946

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-8

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MATTIE KITTLES

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0946

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-9

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: H JONES

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0947

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-9

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: H JONES

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0947

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-10

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/4/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0921

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-10

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/4/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0921

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02967-1

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: R.GILMORE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0948

Level: (low/med) LOW Date Received: 05/06/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02967-1

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: R.GILMORE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0948

Level: (low/med) LOW Date Received: 05/06/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02967-2

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/4/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0943

Level: (low/med) LOW Date Received: 05/06/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02967-2

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: TRIP BLANK (5/4/00)

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0943

Level: (low/med) LOW Date Received: 05/06/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

Laboratory Analytical Reports
Lancaster Laboratory – Lancaster, Pennsylvania

Analysis Request/ Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. # 2813 Sample # 3373989-4000

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: LAW
Acct. #:
Project Name/#: Tk Louisville
PWSID #:
Project Manager: Rhonda Quinn
P.O.#
Sampler: Rhonda Quinn
Quote #:
Name of state where samples were collected: GA

For lab use only
FSC:
SCR #: 1138255

(2) (3) Matrix (4) (5) Analyses Requested (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (☒ Potable ☐ NPDES)	Other	Total # of Containers	8260	Remarks	Temperature of samples upon receipt (if requested)
LCW #1	5/2/00	1445	✓			✓		3	3	Constituents and Reporting Limits per R. Quinn	
LCW #2	5/2/00	1535	✓			✓		3	3		
LCW #3	5/2/00	1510	✓			✓		3	3		
LCW #4	5/2/00	1550	✓			✓		3	3		
LCW #5	5/2/00	1520	✓			✓		3	3		
LCW #1 MS/MSD	5/2/00	1415	✓			✓		3	3		
LCW #6	5/2/00	1630	✓			✓		3	3		
Pierre Smith	5/3/00	1045	✓			✓		3	3		
Ethel Clark	5/3/00	1130	✓			✓		3	3		
Duplicate	5/3/00	1500	✓			✓		3	3		

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush (circled)
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax (circled)
Phone #: 770 421 3516 Fax #: 770 421 3486

(8) **Data Package Options** (please circle if requested)
QC Summary Type VI (Raw Data) (circled)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes (circled) No

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

Relinquished by	Date	Time	Received by	Date	Time
[signature]	4/27/00	1600			
Rhonda N. Quinn	5/3/00	1530			
			[signature]	5/4/00	0910

(9)

Lancaster Laboratories is a subsidiary of Thermo TerraTech Inc., a Thermo Electron Company
2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client 2102 Rev. 6/7/99

Analysis Request/ Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. # 2813 Sample # 3373989-4000

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: LAW Acct. #:
Project Name/#: TK Louisville PWSID #:
Project Manager: Rhonda Quinn P.O.#
Sampler: Rhonda Quinn Quote #:
Name of state where samples were collected: GA

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix (4): Soil	Water (☐ Potable ☐ NPDES)	Other	Total # of Containers	8260	Remarks	Temperature of samples upon receipt (if requested)
Trip Blank TB00111	5/3/00							1	1		

For lab use only
FSC:
SCR #:

(7) **Turnaround Time Requested** (TAT) (please circle): Normal (Rush)
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #: 770 421 3516 Fax #: 770 421 3486

(8) **Data Package Options** (please circle if requested)
QC Summary Type VI (Raw Data) SDG Complete? Yes No
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Rhonda M. Quinn	5/3/00	1530			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
				5/4/00	0900

Lancaster Laboratories
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ANALYTICAL RESULTS

Prepared for:

Law Engineering & Env. Svc Inc
3200 Town Point Drive NW
Suite 100
Kennesaw GA 30144

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 713295. Samples arrived at the laboratory on Thursday, May 04, 2000.

Client Description	Lancaster Labs Number
LCW #1 Unspiked Grab Water Sample	3373989
LCW #2 Grab Water Sample	3373990
LCW #3 Grab Water Sample	3373991
LCW #4 Grab Water Sample	3373992
LCW #5 Grab Water Sample	3373993
LCW #1 Matrix Spike Grab Water Sample	3373994
LCW #1 Matrix Spike Duplicate Grab Water Sample	3373995
LCW #6 Grab Water Sample	3373996
Pierre Smith Grab Water Sample	3373997
Ethel Clark Grab Water Sample	3373998
Duplicate Grab Water Sample	3373999
TB00111 Trip Blank Water Sample	3374000

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO	Law Engineering & Env. Svc Inc	Attn: Paul Brafford
1 COPY TO	Data Package Group	

10

Lancaster Laboratories
Where quality is a science.

Questions? Contact your Client Services Representative
Wendy K. Park at (717) 656-2300.

Respectfully Submitted,

MEMBER ACIL
Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories is a subsidiary of Thermo TerraTech Inc., a Thermo Electron Company.
See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCW-1

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373989
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s10.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/07/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5	U		
74-87-3	Chloromethane	5	U		
75-01-4	Vinyl Chloride	2	U	X	
74-83-9	Bromomethane	5	U		
75-00-3	Chloroethane	5	U		
75-69-4	Trichlorofluoromethane	5	U		
75-35-4	1,1-Dichloroethene	5	U		
75-09-2	Methylene Chloride	5	U		
156-60-5	trans-1,2-Dichloroethene	5	U		
75-34-3	1,1-Dichloroethane	5	U		
156-59-2	cis-1,2-Dichloroethene	5	U		
594-20-7	2,2-Dichloropropane	5	U		
74-97-5	Bromochloromethane	5	U		
67-66-3	Chloroform	5	U		
71-55-6	1,1,1-Trichloroethane	5	U		
563-58-6	1,1-Dichloropropene	5	U		
56-23-5	Carbon Tetrachloride	5	U		
71-43-2	Benzene	5	U		
107-06-2	1,2-Dichloroethane	5	U		
79-01-6	Trichloroethene	5	U		
78-87-5	1,2-Dichloropropane	5	U		
74-95-3	Dibromomethane	5	U		
123-91-1	1,4-Dioxane	250	U		
75-27-4	Bromodichloromethane	5	U		
108-88-3	Toluene	5	U		
79-00-5	1,1,2-Trichloroethane	5	U		
127-18-4	Tetrachloroethene	5	U		
142-28-9	1,3-Dichloropropane	5	U		
124-48-1	Dibromochloromethane	5	U		
106-93-4	1,2-Dibromoethane	5	U		

X= Vinyl chloride reported to method detection limit.

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCW-1

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373989
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s10.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/07/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene	5		U
630-20-6	1,1,1,2-Tetrachloroethane	5		U
100-41-4	Ethylbenzene	5		U
1330-20-7	m+p-Xylene	5		U
95-47-6	o-Xylene	5		U
100-42-5	Styrene	5		U
75-25-2	Bromoform	5		U
98-82-8	Isopropylbenzene	5		U
108-86-1	Bromobenzene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
96-18-4	1,2,3-Trichloropropane	5		U
103-65-1	n-Propylbenzene	5		U
95-49-8	2-Chlorotoluene	5		U
106-43-4	4-Chlorotoluene	5		U
108-67-8	1,3,5-Trimethylbenzene	5		U
98-06-6	tert-Butylbenzene	5		U
95-63-6	1,2,4-Trimethylbenzene	5		U
135-98-8	sec-Butylbenzene	5		U
541-73-1	1,3-Dichlorobenzene	5		U
99-87-6	p-Isopropyltoluene	5		U
106-46-7	1,4-Dichlorobenzene	5		U
95-50-1	1,2-Dichlorobenzene	5		U
104-51-8	n-Butylbenzene	5		U
96-12-8	1,2-Dibromo-3-Chloropropane	5		U
120-82-1	1,2,4-Trichlorobenzene	5		U
87-68-3	Hexachlorobutadiene	5		U
91-20-3	Naphthalene	5		U
87-61-6	1,2,3-Trichlorobenzene	5		U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCW-2

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373990
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s11.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/07/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5	U		
74-87-3	Chloromethane	5	U		
75-01-4	Vinyl Chloride	2	U	X	
74-83-9	Bromomethane	5	U		
75-00-3	Chloroethane	5	U		
75-69-4	Trichlorofluoromethane	5	U		
75-35-4	1,1-Dichloroethene	5	U		
75-09-2	Methylene Chloride	5	U		
156-60-5	trans-1,2-Dichloroethene	5	U		
75-34-3	1,1-Dichloroethane	5	U		
156-59-2	cis-1,2-Dichloroethene	5	U		
594-20-7	2,2-Dichloropropane	5	U		
74-97-5	Bromochloromethane	5	U		
67-66-3	Chloroform	5	U		
71-55-6	1,1,1-Trichloroethane	5	U		
563-58-6	1,1-Dichloropropene	5	U		
56-23-5	Carbon Tetrachloride	5	U		
71-43-2	Benzene	5	U		
107-06-2	1,2-Dichloroethane	5	U		
79-01-6	Trichloroethene	5	U		
78-87-5	1,2-Dichloropropane	5	U		
74-95-3	Dibromomethane	5	U		
123-91-1	1,4-Dioxane	250	U		
75-27-4	Bromodichloromethane	5	U		
108-88-3	Toluene	5	U		
79-00-5	1,1,2-Trichloroethane	5	U		
127-18-4	Tetrachloroethene	5	U		
142-28-9	1,3-Dichloropropane	5	U		
124-48-1	Dibromochloromethane	5	U		
106-93-4	1,2-Dibromoethane	5	U		

X= Vinyl chloride reported to method detection limit.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCW-2

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373990
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s11.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/07/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene	5	U	
630-20-6	1,1,1,2-Tetrachloroethane	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	m+p-Xylene	5	U	
95-47-6	o-Xylene	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
108-86-1	Bromobenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
96-18-4	1,2,3-Trichloropropane	5	U	
103-65-1	n-Propylbenzene	5	U	
95-49-8	2-Chlorotoluene	5	U	
106-43-4	4-Chlorotoluene	5	U	
108-67-8	1,3,5-Trimethylbenzene	5	U	
98-06-6	tert-Butylbenzene	5	U	
95-63-6	1,2,4-Trimethylbenzene	5	U	
135-98-8	sec-Butylbenzene	5	U	
541-73-1	1,3-Dichlorobenzene	5	U	
99-87-6	p-Isopropyltoluene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
104-51-8	n-Butylbenzene	5	U	
96-12-8	1,2-Dibromo-3-Chloropropane	5	U	
120-82-1	1,2,4-Trichlorobenzene	5	U	
87-68-3	Hexachlorobutadiene	5	U	
91-20-3	Naphthalene	5	U	
87-61-6	1,2,3-Trichlorobenzene	5	U	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCW-3

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373991
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s12.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	2	U	X
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
75-09-2	Methylene Chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
594-20-7	2,2-Dichloropropane	5	U	
74-97-5	Bromochloromethane	5	U	
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
563-58-6	1,1-Dichloropropene	5	U	
56-23-5	Carbon Tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
74-95-3	Dibromomethane	5	U	
123-91-1	1,4-Dioxane	250	U	
75-27-4	Bromodichloromethane	5	U	
108-88-3	Toluene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	
142-28-9	1,3-Dichloropropane	5	U	
124-48-1	Dibromochloromethane	5	U	
106-93-4	1,2-Dibromoethane	5	U	

X= Vinyl chloride reported to method detection limit.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCW-3

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373991
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s12.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene	5		U
630-20-6	1,1,1,2-Tetrachloroethane	5		U
100-41-4	Ethylbenzene	5		U
1330-20-7	m+p-Xylene	5		U
95-47-6	o-Xylene	5		U
100-42-5	Styrene	5		U
75-25-2	Bromoform	5		U
98-82-8	Isopropylbenzene	5		U
108-86-1	Bromobenzene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
96-18-4	1,2,3-Trichloropropane	5		U
103-65-1	n-Propylbenzene	5		U
95-49-8	2-Chlorotoluene	5		U
106-43-4	4-Chlorotoluene	5		U
108-67-8	1,3,5-Trimethylbenzene	5		U
98-06-6	tert-Butylbenzene	5		U
95-63-6	1,2,4-Trimethylbenzene	5		U
135-98-8	sec-Butylbenzene	5		U
541-73-1	1,3-Dichlorobenzene	5		U
99-87-6	p-Isopropyltoluene	5		U
106-46-7	1,4-Dichlorobenzene	5		U
95-50-1	1,2-Dichlorobenzene	5		U
104-51-8	n-Butylbenzene	5		U
96-12-8	1,2-Dibromo-3-Chloropropane	5		U
120-82-1	1,2,4-Trichlorobenzene	5		U
87-68-3	Hexachlorobutadiene	5		U
91-20-3	Naphthalene	5		U
87-61-6	1,2,3-Trichlorobenzene	5		U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCW-4

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373992
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s13.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5	U		
74-87-3	Chloromethane	5	U		
75-01-4	Vinyl Chloride	2	U	X	
74-83-9	Bromomethane	5	U		
75-00-3	Chloroethane	5	U		
75-69-4	Trichlorofluoromethane	5	U		
75-35-4	1,1-Dichloroethene	5	U		
75-09-2	Methylene Chloride	5	U		
156-60-5	trans-1,2-Dichloroethene	5	U		
75-34-3	1,1-Dichloroethane	5	U		
156-59-2	cis-1,2-Dichloroethene	5	U		
594-20-7	2,2-Dichloropropane	5	U		
74-97-5	Bromochloromethane	5	U		
67-66-3	Chloroform	5	U		
71-55-6	1,1,1-Trichloroethane	5	U		
563-58-6	1,1-Dichloropropene	5	U		
56-23-5	Carbon Tetrachloride	5	U		
71-43-2	Benzene	5	U		
107-06-2	1,2-Dichloroethane	5	U		
79-01-6	Trichloroethene	5	U		
78-87-5	1,2-Dichloropropane	5	U		
74-95-3	Dibromomethane	5	U		
123-91-1	1,4-Dioxane	250	U		
75-27-4	Bromodichloromethane	5	U		
108-88-3	Toluene	5	U		
79-00-5	1,1,2-Trichloroethane	5	U		
127-18-4	Tetrachloroethene	5	U		
142-28-9	1,3-Dichloropropane	5	U		
124-48-1	Dibromochloromethane	5	U		
106-93-4	1,2-Dibromoethane	5	U		

X= Vinyl chloride reported to method detection limit.

FORM I VOA

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EPA SAMPLE NO.

LCW-4

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373992
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s13.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCW-5

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373993
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s14.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	2	U	X
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
75-09-2	Methylene Chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
594-20-7	2,2-Dichloropropane	5	U	
74-97-5	Bromochloromethane	5	U	
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
563-58-6	1,1-Dichloropropene	5	U	
56-23-5	Carbon Tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
74-95-3	Dibromomethane	5	U	
123-91-1	1,4-Dioxane	250	U	
75-27-4	Bromodichloromethane	5	U	
108-88-3	Toluene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	
142-28-9	1,3-Dichloropropane	5	U	
124-48-1	Dibromochloromethane	5	U	
106-93-4	1,2-Dibromoethane	5	U	

X= Vinyl chloride reported to method detection limit.

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EPA SAMPLE NO.
LCW-5

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373993
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s14.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene	5		U
630-20-6	1,1,1,2-Tetrachloroethane	5		U
100-41-4	Ethylbenzene	5		U
1330-20-7	m+p-Xylene	5		U
95-47-6	o-Xylene	5		U
100-42-5	Styrene	5		U
75-25-2	Bromoform	5		U
98-82-8	Isopropylbenzene	5		U
108-86-1	Bromobenzene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
96-18-4	1,2,3-Trichloropropane	5		U
103-65-1	n-Propylbenzene	5		U
95-49-8	2-Chlorotoluene	5		U
106-43-4	4-Chlorotoluene	5		U
108-67-8	1,3,5-Trimethylbenzene	5		U
98-06-6	tert-Butylbenzene	5		U
95-63-6	1,2,4-Trimethylbenzene	5		U
135-98-8	sec-Butylbenzene	5		U
541-73-1	1,3-Dichlorobenzene	5		U
99-87-6	p-Isopropyltoluene	5		U
106-46-7	1,4-Dichlorobenzene	5		U
95-50-1	1,2-Dichlorobenzene	5		U
104-51-8	n-Butylbenzene	5		U
96-12-8	1,2-Dibromo-3-Chloropropane	5		U
120-82-1	1,2,4-Trichlorobenzene	5		U
87-68-3	Hexachlorobutadiene	5		U
91-20-3	Naphthalene	5		U
87-61-6	1,2,3-Trichlorobenzene	5		U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCW-1MS

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373994
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s15.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	12	
74-87-3	Chloromethane	19	
75-01-4	Vinyl Chloride	19	
74-83-9	Bromomethane	19	
75-00-3	Chloroethane	19	
75-69-4	Trichlorofluoromethane	21	
75-35-4	1,1-Dichloroethene	25	
75-09-2	Methylene Chloride	24	
156-60-5	trans-1,2-Dichloroethene	25	
75-34-3	1,1-Dichloroethane	23	
156-59-2	cis-1,2-Dichloroethene	22	
594-20-7	2,2-Dichloropropane	21	
74-97-5	Bromochloromethane	17	
67-66-3	Chloroform	21	
71-55-6	1,1,1-Trichloroethane	22	
563-58-6	1,1-Dichloropropene	21	
56-23-5	Carbon Tetrachloride	22	
71-43-2	Benzene	22	
107-06-2	1,2-Dichloroethane	20	
79-01-6	Trichloroethene	22	
78-87-5	1,2-Dichloropropane	22	
74-95-3	Dibromomethane	22	
123-91-1	1,4-Dioxane	430	
75-27-4	Bromodichloromethane	19	
108-88-3	Toluene	20	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	21	
142-28-9	1,3-Dichloropropane	19	
124-48-1	Dibromochloromethane	17	
106-93-4	1,2-Dibromoethane	19	

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EPA SAMPLE NO.

LCW-1MS

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373994
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s15.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-90-7	Chlorobenzene	21	
630-20-6	1,1,1,2-Tetrachloroethane	19	
100-41-4	Ethylbenzene	20	
1330-20-7	m+p-Xylene	44	
95-47-6	o-Xylene	21	
100-42-5	Styrene	20	
75-25-2	Bromoform	14	
98-82-8	Isopropylbenzene	21	
108-86-1	Bromobenzene	18	
79-34-5	1,1,2,2-Tetrachloroethane	18	
96-18-4	1,2,3-Trichloropropane	18	
103-65-1	n-Propylbenzene	20	
95-49-8	2-Chlorotoluene	19	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	20	
98-06-6	tert-Butylbenzene	20	
95-63-6	1,2,4-Trimethylbenzene	20	
135-98-8	sec-Butylbenzene	21	
541-73-1	1,3-Dichlorobenzene	19	
99-87-6	p-Isopropyltoluene	21	
106-46-7	1,4-Dichlorobenzene	20	
95-50-1	1,2-Dichlorobenzene	19	
104-51-8	n-Butylbenzene	20	
96-12-8	1,2-Dibromo-3-Chloropropane	17	
120-82-1	1,2,4-Trichlorobenzene	17	
87-68-3	Hexachlorobutadiene	18	
91-20-3	Naphthalene	15	
87-61-6	1,2,3-Trichlorobenzene	15	

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EPA SAMPLE NO.
LCW-1MSD

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373995
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s16.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
75-71-8	Dichlorodifluoromethane		14	
74-87-3	Chloromethane		19	
75-01-4	Vinyl Chloride		20	
74-83-9	Bromomethane		17	
75-00-3	Chloroethane		19	
75-69-4	Trichlorofluoromethane		21	
75-35-4	1,1-Dichloroethene		26	
75-09-2	Methylene Chloride		25	
156-60-5	trans-1,2-Dichloroethene		25	
75-34-3	1,1-Dichloroethane		23	
156-59-2	cis-1,2-Dichloroethene		22	
594-20-7	2,2-Dichloropropane		21	
74-97-5	Bromochloromethane		17	
67-66-3	Chloroform		21	
71-55-6	1,1,1-Trichloroethane		22	
563-58-6	1,1-Dichloropropene		21	
56-23-5	Carbon Tetrachloride		22	
71-43-2	Benzene		22	
107-06-2	1,2-Dichloroethane		21	
79-01-6	Trichloroethene		22	
78-87-5	1,2-Dichloropropane		22	
74-95-3	Dibromomethane		22	
123-91-1	1,4-Dioxane		470	
75-27-4	Bromodichloromethane		19	
108-88-3	Toluene		20	
79-00-5	1,1,2-Trichloroethane		20	
127-18-4	Tetrachloroethene		21	
142-28-9	1,3-Dichloropropane		19	
124-48-1	Dibromochloromethane		16	
106-93-4	1,2-Dibromoethane		19	

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EPA SAMPLE NO.
LCW-1MSD

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373995
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s16.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		20	
630-20-6	1,1,1,2-Tetrachloroethane		20	
100-41-4	Ethylbenzene		20	
1330-20-7	m+p-Xylene		44	
95-47-6	o-Xylene		22	
100-42-5	Styrene		20	
75-25-2	Bromoform		14	
98-82-8	Isopropylbenzene		22	
108-86-1	Bromobenzene		18	
79-34-5	1,1,2,2-Tetrachloroethane		18	
96-18-4	1,2,3-Trichloropropane		18	
103-65-1	n-Propylbenzene		20	
95-49-8	2-Chlorotoluene		19	
106-43-4	4-Chlorotoluene		19	
108-67-8	1,3,5-Trimethylbenzene		20	
98-06-6	tert-Butylbenzene		20	
95-63-6	1,2,4-Trimethylbenzene		20	
135-98-8	sec-Butylbenzene		21	
541-73-1	1,3-Dichlorobenzene		19	
99-87-6	p-Isopropyltoluene		21	
106-46-7	1,4-Dichlorobenzene		19	
95-50-1	1,2-Dichlorobenzene		19	
104-51-8	n-Butylbenzene		20	
96-12-8	1,2-Dibromo-3-Chloropropane		16	
120-82-1	1,2,4-Trichlorobenzene		17	
87-68-3	Hexachlorobutadiene		19	
91-20-3	Naphthalene		15	
87-61-6	1,2,3-Trichlorobenzene		15	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCW-6

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373996
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s17.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	2	U	X
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
75-09-2	Methylene Chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
594-20-7	2,2-Dichloropropane	5	U	
74-97-5	Bromochloromethane	5	U	
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
563-58-6	1,1-Dichloropropene	5	U	
56-23-5	Carbon Tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
74-95-3	Dibromomethane	5	U	
123-91-1	1,4-Dioxane	250	U	
75-27-4	Bromodichloromethane	5	U	
108-88-3	Toluene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	
142-28-9	1,3-Dichloropropane	5	U	
124-48-1	Dibromochloromethane	5	U	
106-93-4	1,2-Dibromoethane	5	U	

X= Vinyl chloride reported to method detection limit.

page 1 of 2

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCW-6

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373996
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s17.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene	5	U	
630-20-6	1,1,1,2-Tetrachloroethane	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	m+p-Xylene	5	U	
95-47-6	o-Xylene	5	U	
100-42-5	Styrene	5	U	
75-25-2	Bromoform	5	U	
98-82-8	Isopropylbenzene	5	U	
108-86-1	Bromobenzene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
96-18-4	1,2,3-Trichloropropane	5	U	
103-65-1	n-Propylbenzene	5	U	
95-49-8	2-Chlorotoluene	5	U	
106-43-4	4-Chlorotoluene	5	U	
108-67-8	1,3,5-Trimethylbenzene	5	U	
98-06-6	tert-Butylbenzene	5	U	
95-63-6	1,2,4-Trimethylbenzene	5	U	
135-98-8	sec-Butylbenzene	5	U	
541-73-1	1,3-Dichlorobenzene	5	U	
99-87-6	p-Isopropyltoluene	5	U	
106-46-7	1,4-Dichlorobenzene	5	U	
95-50-1	1,2-Dichlorobenzene	5	U	
104-51-8	n-Butylbenzene	5	U	
96-12-8	1,2-Dibromo-3-Chloropropane	5	U	
120-82-1	1,2,4-Trichlorobenzene	5	U	
87-68-3	Hexachlorobutadiene	5	U	
91-20-3	Naphthalene	5	U	
87-61-6	1,2,3-Trichlorobenzene	5	U	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PIERE

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373997
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s18.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	5		U	
75-09-2	Methylene Chloride	5		U	
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	5		U	
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	5		U	
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	5		U	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

X= Vinyl chloride reported to method detection limit.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIERE

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373997
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s18.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene	5		U
630-20-6	1,1,1,2-Tetrachloroethane	5		U
100-41-4	Ethylbenzene	5		U
1330-20-7	m+p-Xylene	5		U
95-47-6	o-Xylene	5		U
100-42-5	Styrene	5		U
75-25-2	Bromoform	5		U
98-82-8	Isopropylbenzene	5		U
108-86-1	Bromobenzene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
96-18-4	1,2,3-Trichloropropane	5		U
103-65-1	n-Propylbenzene	5		U
95-49-8	2-Chlorotoluene	5		U
106-43-4	4-Chlorotoluene	5		U
108-67-8	1,3,5-Trimethylbenzene	5		U
98-06-6	tert-Butylbenzene	5		U
95-63-6	1,2,4-Trimethylbenzene	5		U
135-98-8	sec-Butylbenzene	5		U
541-73-1	1,3-Dichlorobenzene	5		U
99-87-6	p-Isopropyltoluene	5		U
106-46-7	1,4-Dichlorobenzene	5		U
95-50-1	1,2-Dichlorobenzene	5		U
104-51-8	n-Butylbenzene	5		U
96-12-8	1,2-Dibromo-3-Chloropropane	5		U
120-82-1	1,2,4-Trichlorobenzene	5		U
87-68-3	Hexachlorobutadiene	5		U
91-20-3	Naphthalene	5		U
87-61-6	1,2,3-Trichlorobenzene	5		U

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EPA SAMPLE NO.
ETHEL

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373998
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s19.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	5		U	
75-09-2	Methylene Chloride	5		U	
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	5		U	
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	5		U	
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	5		U	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

X= Vinyl chloride reported to method detection limit.

FORM I VOA

MEMBER ACIL
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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
ETHEL

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373998
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s19.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUPLI

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373999
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s20.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	2	U	X
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
75-09-2	Methylene Chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
594-20-7	2,2-Dichloropropane	5	U	
74-97-5	Bromochloromethane	5	U	
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
563-58-6	1,1-Dichloropropene	5	U	
56-23-5	Carbon Tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
74-95-3	Dibromomethane	5	U	
123-91-1	1,4-Dioxane	250	U	
75-27-4	Bromodichloromethane	5	U	
108-88-3	Toluene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	
142-28-9	1,3-Dichloropropane	5	U	
124-48-1	Dibromochloromethane	5	U	
106-93-4	1,2-Dibromoethane	5	U	

X= Vinyl chloride reported to method detection limit.

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
DUPLI

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3373999
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s20.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB111

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3374000
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s20.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/09/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	5		U	
75-09-2	Methylene Chloride	22			
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	5		U	
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	5		U	
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	5		U	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

X= Vinyl chloride reported to method detection limit.

page 1 of 2

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
TB111

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3374000
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s20.d
Level: (low/med) LOW Date Received: 05/04/00
Moisture: not dec. _____ Date Analyzed: 05/09/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

FORM I VOA

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Analysis Request/ Environmental Services Chain of Custody

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For Lancaster Laboratories use only
Acct. # 2813 Sample # 3375185-93

VOC constituents + reporting limits per Rhonda Quinn

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: LAW Acct. #:
Project Name/#: TK-Louisville PWSID #:
Project Manager: Rhonda Quinn P.O.#
Sampler: RNQ Quote #:
Name of state where samples were collected: GA

For lab use only
FSC:
SCR #:

(2)

Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix (4) Soil	Water (☐ Potable ☐ NPDES)	Other	Total # of Containers	(5) 8260 VOCs								Remarks	(6) Temperature of samples upon receipt (if requested)
Manson Branch #1	5/3/00	1600	✓			✓		3	3									
Manson Branch #2	5/3/00	1620	✓			✓		3	3									
W. Jones	5/3/00	1750	✓			✓		3	3									
J Davis Jr	5/3/00	1820	✓			✓		3	3									
AP Jones Jr	5/4/00	1100	✓			✓		3	3									
Butch Dollar	5/4/00	1140 ctm	✓			✓		3	3									
Mattie Kittles	5/4/00	1145	✓			✓		3	3									
H. Jones	5/4/00	1245	✓			✓		3	3									
Trip Blank			✓			✓		1	1									

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush 5 days
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #: Fax #: 770 421 3516

(8) **Data Package Options** (please circle if requested)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)

Internal Chain of Custody required? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Rhonda N. Quinn	5/4/00	1500			
			[signature]	5/5/00	0935

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2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client 2102 Rev. 6/7/99

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ANALYTICAL RESULTS

Prepared for:

Law Engineering & Env. Svc Inc
3200 Town Point Drive NW
Suite 100
Kennesaw GA 30144

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 713533. Samples arrived at the laboratory on Friday, May 05, 2000.

Client Description	Lancaster Labs Number
Manson Branch #1 Grab Water Sample	3375185
Manson Branch #2 Grab Water Sample	3375186
W. Jones Grab Water Sample	3375187
J. Davis Jr. Grab Water Sample	3375188
A.P. Jones Jr. Grab Water Sample	3375189
Butch Dollar Grab Water Sample	3375190
Mattie Kittles Grab Water Sample	3375191
H. Jones Grab Water Sample	3375192
Trip Blank Grab Water Sample	3375193

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO	Law Engineering & Env. Svc Inc	Attn: Paul Brafford
1 COPY TO	Data Package Group	

Questions? Contact your Client Services Representative
Wendy K. Park at (717) 656-2300.

Respectfully Submitted,

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MNSB1

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375185
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s14.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	5		U	
75-09-2	Methylene Chloride	5		U	
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	5		U	
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	5		U	
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	5		U	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

X = Vinyl chloride reported to method detection limit

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MNSB1

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375185
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s14.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MNSB2

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375186
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s16.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	2	U X
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	69	
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	36	
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	200	
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	660	E
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
123-91-1	1,4-Dioxane	250	U
75-27-4	Bromodichloromethane	5	U
108-88-3	Toluene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U

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FORM I VOA

X = Vinyl chloride reported to method detection limit. KSM/146 5/23/00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MNSB2

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375186
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s16.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

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EPA SAMPLE NO.

MNSB2DL

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375186
Sample wt/vol: 1.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s17.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	25	U		
74-87-3	Chloromethane	25	U		
75-01-4	Vinyl Chloride	10	U		X
74-83-9	Bromomethane	25	U		
75-00-3	Chloroethane	25	U		
75-69-4	Trichlorofluoromethane	25	U		
75-35-4	1,1-Dichloroethene	56		D	
75-09-2	Methylene Chloride	25	U		
156-60-5	trans-1,2-Dichloroethene	25	U		
75-34-3	1,1-Dichloroethane	25	U		
156-59-2	cis-1,2-Dichloroethene	30		D	
594-20-7	2,2-Dichloropropane	25	U		
74-97-5	Bromochloromethane	25	U		
67-66-3	Chloroform	25	U		
71-55-6	1,1,1-Trichloroethane	160		D	
563-58-6	1,1-Dichloropropene	25	U		
56-23-5	Carbon Tetrachloride	25	U		
71-43-2	Benzene	25	U		
107-06-2	1,2-Dichloroethane	25	U		
79-01-6	Trichloroethene	490		D	
78-87-5	1,2-Dichloropropane	25	U		
74-95-3	Dibromomethane	25	U		
75-27-4	Bromodichloromethane	25	U		
108-88-3	Toluene	25	U		
79-00-5	1,1,2-Trichloroethane	25	U		
127-18-4	Tetrachloroethene	25	U		
142-28-9	1,3-Dichloropropane	25	U		
124-48-1	Dibromochloromethane	25	U		
106-93-4	1,2-Dibromoethane	25	U		
108-90-7	Chlorobenzene	25	U		

FORM I VOA

X = Vinyl chloride reported to method detection limit. RBM/146 5/23/00

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EPA SAMPLE NO.
MNSB2DL

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375186
Sample wt/vol: 1.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s17.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
630-20-6	1,1,1,2-Tetrachloroethane		25	U
100-41-4	Ethylbenzene		25	U
1330-20-7	m+p-Xylene		25	U
95-47-6	o-Xylene		25	U
100-42-5	Styrene		25	U
75-25-2	Bromoform		25	U
98-82-8	Isopropylbenzene		25	U
108-86-1	Bromobenzene		25	U
79-34-5	1,1,2,2-Tetrachloroethane		25	U
96-18-4	1,2,3-Trichloropropane		25	U
103-65-1	n-Propylbenzene		25	U
95-49-8	2-Chlorotoluene		25	U
106-43-4	4-Chlorotoluene		25	U
108-67-8	1,3,5-Trimethylbenzene		25	U
98-06-6	tert-Butylbenzene		25	U
95-63-6	1,2,4-Trimethylbenzene		25	U
135-98-8	sec-Butylbenzene		25	U
541-73-1	1,3-Dichlorobenzene		25	U
99-87-6	p-Isopropyltoluene		25	U
106-46-7	1,4-Dichlorobenzene		25	U
95-50-1	1,2-Dichlorobenzene		25	U
104-51-8	n-Butylbenzene		25	U
96-12-8	1,2-Dibromo-3-Chloropropane		25	U
120-82-1	1,2,4-Trichlorobenzene		25	U
87-68-3	Hexachlorobutadiene		25	U
91-20-3	Naphthalene		25	U
87-61-6	1,2,3-Trichlorobenzene		25	U

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EPA SAMPLE NO.
JONES

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375187
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s15.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	5		U	
75-09-2	Methylene Chloride	5		U	
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	5		U	
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	5		U	
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	5		U	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

page 1 of 2

FORM I VOA

X = Vinyl chloride reported to method detection limit. cm/146 5/23/00

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
JONES

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375187
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s15.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

FORM I VOA

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EPA SAMPLE NO.
DAVIS

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375188
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s21.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/09/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5	U		
74-87-3	Chloromethane	5	U		
75-01-4	Vinyl Chloride	2	U	X	
74-83-9	Bromomethane	5	U		
75-00-3	Chloroethane	5	U		
75-69-4	Trichlorofluoromethane	5	U		
75-35-4	1,1-Dichloroethene	5	U		
75-09-2	Methylene Chloride	5	U		
156-60-5	trans-1,2-Dichloroethene	5	U		
75-34-3	1,1-Dichloroethane	5	U		
156-59-2	cis-1,2-Dichloroethene	5	U		
594-20-7	2,2-Dichloropropane	5	U		
74-97-5	Bromochloromethane	5	U		
67-66-3	Chloroform	5	U		
71-55-6	1,1,1-Trichloroethane	5	U		
563-58-6	1,1-Dichloropropene	5	U		
56-23-5	Carbon Tetrachloride	5	U		
71-43-2	Benzene	5	U		
107-06-2	1,2-Dichloroethane	5	U		
79-01-6	Trichloroethene	5	U		
78-87-5	1,2-Dichloropropane	5	U		
74-95-3	Dibromomethane	5	U		
123-91-1	1,4-Dioxane	250	U		
75-27-4	Bromodichloromethane	5	U		
108-88-3	Toluene	5	U		
79-00-5	1,1,2-Trichloroethane	5	U		
127-18-4	Tetrachloroethene	5	U		
142-28-9	1,3-Dichloropropane	5	U		
124-48-1	Dibromochloromethane	5	U		
106-93-4	1,2-Dibromoethane	5	U		

X= Vinyl chloride reported to method detection limit.

FORM I VOA

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EPA SAMPLE NO.
DAVIS

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375188
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s21.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/09/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

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EPA SAMPLE NO.
AP-JR

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375189
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s22.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	5		U	
75-09-2	Methylene Chloride	5		U	
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	5		U	
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	5		U	
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	5		U	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

X= Vinyl chloride reported to method detection limit.

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
AP-JR

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375189
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s22.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

FORM I VOA

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BUTCH

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375190
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s23.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	5		U	
75-09-2	Methylene Chloride	5		U	
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	5		U	
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	5		U	
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	5		U	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

X= Vinyl chloride reported to method detection limit.

FORM I VOA

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BUTCH

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375190
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s23.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MATIE

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375191
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/1y09s24.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5	U		
74-87-3	Chloromethane	5	U		
75-01-4	Vinyl Chloride	2	U	X	
74-83-9	Bromomethane	5	U		
75-00-3	Chloroethane	5	U		
75-69-4	Trichlorofluoromethane	5	U		
75-35-4	1,1-Dichloroethene	5	U		
75-09-2	Methylene Chloride	5	U		
156-60-5	trans-1,2-Dichloroethene	5	U		
75-34-3	1,1-Dichloroethane	5	U		
156-59-2	cis-1,2-Dichloroethene	5	U		
594-20-7	2,2-Dichloropropane	5	U		
74-97-5	Bromochloromethane	5	U		
67-66-3	Chloroform	5	U		
71-55-6	1,1,1-Trichloroethane	5	U		
563-58-6	1,1-Dichloropropene	5	U		
56-23-5	Carbon Tetrachloride	5	U		
71-43-2	Benzene	5	U		
107-06-2	1,2-Dichloroethane	5	U		
79-01-6	Trichloroethene	5	U		
78-87-5	1,2-Dichloropropane	5	U		
74-95-3	Dibromomethane	5	U		
123-91-1	1,4-Dioxane	250	U		
75-27-4	Bromodichloromethane	5	U		
108-88-3	Toluene	5	U		
79-00-5	1,1,2-Trichloroethane	5	U		
127-18-4	Tetrachloroethene	5	U		
142-28-9	1,3-Dichloropropane	5	U		
124-48-1	Dibromochloromethane	5	U		
106-93-4	1,2-Dibromoethane	5	U		

X= Vinyl chloride reported to method detection limit.

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MATIE

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375191
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s24.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
HJOSE

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375192
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s25.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	2	U	X
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
75-09-2	Methylene Chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
594-20-7	2,2-Dichloropropane	5	U	
74-97-5	Bromochloromethane	5	U	
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
563-58-6	1,1-Dichloropropene	5	U	
56-23-5	Carbon Tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
74-95-3	Dibromomethane	5	U	
123-91-1	1,4-Dioxane	250	U	
75-27-4	Bromodichloromethane	5	U	
108-88-3	Toluene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	
142-28-9	1,3-Dichloropropane	5	U	
124-48-1	Dibromochloromethane	5	U	
106-93-4	1,2-Dibromoethane	5	U	

X= Vinyl chloride reported to method detection limit.

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
HJOSE

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375192
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s25.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

FORM I VOA

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1A EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TRIP-

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375193
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s26.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	5		U	
75-09-2	Methylene Chloride	5		U	
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	5		U	
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	5		U	
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	5		U	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

X= Vinyl chloride reported to method detection limit.

FORM I VOA

76

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP-

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375193
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may09b.b/ly09s26.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

FORM I VOA

77

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717-656-2300 Fax: 717-656-2681

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CASE NARRATIVE

CLIENT: LAW ENGINEERING
SDG: TKL01

LANCASTER LABORATORIES

VOLATILES by GC/MS

LL NUMBERS:	SAMPLE CODES:	MATRIX SOIL	MATRIX WATER	COMMENTS
3373989	LCW-1		X	UNSPIKED
3373990	LCW-2		X	
3373991	LCW-3		X	
3373992	LCW-4		X	
3373993	LCW-5		X	
3373994	LCW-1MS		X	MATRIX SPIKE
3373995	LCW-1MSD		X	MATRIX SPIKE DUP
3373996	LCW-6		X	
3373997	PIERE		X	
3373998	ETHEL		X	
3373999	DUPLI		X	
3374000	TB111		X	CLIENT BLANK
3375185	MNSB1		X	
3375186	MNSB2		X	
3375186	MNSB2DL		X	5X DILUTION
3375187	JONES		X	
3375188	DAVIS		X	
3375189	AP-JR		X	
3375190	BUTCH		X	
3375191	MATIE		X	
3375192	HJOSE		X	
3375193	TRIP-		X	CLIENT BLANK
LABORATORY SUBMITTED QC:				
VBLKL01	VBLKL01		X	METHOD BLANK
VBLKL05	VBLKL05		X	METHOD BLANK
VBLKP04	VBLKP04		X	METHOD BLANK
VBLKP05	VBLKP05		X	METHOD BLANK
LCSWL01	LCSWL01		X	LAB CONTROL SAMPLE
LCSWP00	LCSWP00		X	LAB CONTROL SAMPLE

SAMPLE PREPARATION:

No sample preparation was necessary for the VOA fraction.

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ANALYSIS:

The method used for analysis was EPA SW846 Method 8260B.

Sample TB111 for the GC/MS VOA analysis was received with headspace.

Vinyl chloride was evaluated to the MDL for all samples.

No other problems were encountered during the analysis of these samples.

QUALITY CONTROL and NONCONFORMANCE SUMMARY:

Only client requested compounds are addressed in this narrative.

All QC was within specifications.

DATA INTERPRETATION:

At the time of data package assembly it was determined that the original GC/MS volatile laboratory internal chain of custody for samples 3373989 – 3374000, and 3375189 - 3375193 was not completely filled out. See the chain of custody form for further information.

No further interpretation is necessary for the data submitted.

Case Narrative reviewed and approved by:

John F. Morton Date 5/19/02

John F. Morton, M.S., GC/MS Volatiles

Analysis Request/ Environmental Services Chain of Custody

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For Lancaster Laboratories use only
Acct. # 2813 Sample # 3376093-4

VOC Constituents and reporting limits per Rhonda Quinn

Please print. Instructions on reverse side correspond with circled numbers.

(1) Client: Law Engineering Acct. #:
Project Name/#: PWSID #:
Project Manager: P.O.#
Sampler: Quote #:
Name of state where samples were collected:

For lab use only
FSC:
SCR #:

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix (4) Soil	Water (☑ Potable ☐ NPDES)	Other	Total # of Containers	(5) Analyses Requested: VOCs 8260	Remarks	(6) Temperature of samples upon receipt (if requested)
RGillmore	5-4-00	1650	✓			✓		3	3		
Trip Blanks			✓			✓		3	3		

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: 5 day
Rush results requested by (please circle): Phone Fax
Phone #: Fax #: 7704213486

(8) **Data Package Options** (please circle if requested)
QC Summary Type VI (Raw Data)
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)

SDG Complete? Yes No

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)

Internal Chain of Custody required? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Rhonda W Quinn	5/5/00	1155			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
			Debby Koch	5/6/00	0950

(9)

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ANALYTICAL RESULTS

Prepared for:

Law Engineering & Env. Svc Inc
3200 Town Point Drive NW
Suite 100
Kennesaw GA 30144

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 713708. Samples arrived at the laboratory on Saturday, May 06, 2000.

Client Description	Lancaster Labs Number
R. Gillmore Grab Water Sample	3376093
Trip Blank Water Sample	3376094

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO	Law Engineering & Env. Svc Inc	Attn: Paul Brafford
1 COPY TO	Data Package Group	

Questions? Contact your Client Services Representative
Wendy K. Park at (717) 656-2300.

Respectfully Submitted,

6

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RGILL

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3376093
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s22.d
Level: (low/med) LOW Date Received: 05/06/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
75-71-8	Dichlorodifluoromethane	5	U	
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	2	U	X
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
75-35-4	1,1-Dichloroethene	5	U	
75-09-2	Methylene Chloride	5	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
594-20-7	2,2-Dichloropropane	5	U	
74-97-5	Bromochloromethane	5	U	
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
563-58-6	1,1-Dichloropropene	5	U	
56-23-5	Carbon Tetrachloride	5	U	
71-43-2	Benzene	5	U	
107-06-2	1,2-Dichloroethane	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
74-95-3	Dibromomethane	5	U	
123-91-1	1,4-Dioxane	250	U	
75-27-4	Bromodichloromethane	5	U	
108-88-3	Toluene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
127-18-4	Tetrachloroethene	5	U	
142-28-9	1,3-Dichloropropane	5	U	
124-48-1	Dibromochloromethane	5	U	
106-93-4	1,2-Dibromoethane	5	U	

X= Vinyl chloride reported to method detection limit.

FORM I VOA

8

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PO Box 12425
Lancaster, PA 17605-2425
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RGILL

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3376093
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s22.d
Level: (low/med) LOW Date Received: 05/06/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LVLTB

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3376094
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s23.d
Level: (low/med) LOW Date Received: 05/06/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5	U		
74-87-3	Chloromethane	5	U		
75-01-4	Vinyl Chloride	2	U	X	
74-83-9	Bromomethane	5	U		
75-00-3	Chloroethane	5	U		
75-69-4	Trichlorofluoromethane	5	U		
75-35-4	1,1-Dichloroethene	5	U		
75-09-2	Methylene Chloride	5	U		
156-60-5	trans-1,2-Dichloroethene	5	U		
75-34-3	1,1-Dichloroethane	5	U		
156-59-2	cis-1,2-Dichloroethene	5	U		
594-20-7	2,2-Dichloropropane	5	U		
74-97-5	Bromochloromethane	5	U		
67-66-3	Chloroform	5	U		
71-55-6	1,1,1-Trichloroethane	5	U		
563-58-6	1,1-Dichloropropene	5	U		
56-23-5	Carbon Tetrachloride	5	U		
71-43-2	Benzene	5	U		
107-06-2	1,2-Dichloroethane	5	U		
79-01-6	Trichloroethene	5	U		
78-87-5	1,2-Dichloropropane	5	U		
74-95-3	Dibromomethane	5	U		
123-91-1	1,4-Dioxane	250	U		
75-27-4	Bromodichloromethane	5	U		
108-88-3	Toluene	5	U		
79-00-5	1,1,2-Trichloroethane	5	U		
127-18-4	Tetrachloroethene	5	U		
142-28-9	1,3-Dichloropropane	5	U		
124-48-1	Dibromochloromethane	5	U		
106-93-4	1,2-Dibromoethane	5	U		

X= Vinyl chloride reported to method detection limit.

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LVLTB

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3376094
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP06719.i/00may07a.b/ly07s23.d
Level: (low/med) LOW Date Received: 05/06/00
Moisture: not dec. _____ Date Analyzed: 05/08/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene	5		U
630-20-6	1,1,1,2-Tetrachloroethane	5		U
100-41-4	Ethylbenzene	5		U
1330-20-7	m+p-Xylene	5		U
95-47-6	o-Xylene	5		U
100-42-5	Styrene	5		U
75-25-2	Bromoform	5		U
98-82-8	Isopropylbenzene	5		U
108-86-1	Bromobenzene	5		U
79-34-5	1,1,2,2-Tetrachloroethane	5		U
96-18-4	1,2,3-Trichloropropane	5		U
103-65-1	n-Propylbenzene	5		U
95-49-8	2-Chlorotoluene	5		U
106-43-4	4-Chlorotoluene	5		U
108-67-8	1,3,5-Trimethylbenzene	5		U
98-06-6	tert-Butylbenzene	5		U
95-63-6	1,2,4-Trimethylbenzene	5		U
135-98-8	sec-Butylbenzene	5		U
541-73-1	1,3-Dichlorobenzene	5		U
99-87-6	p-Isopropyltoluene	5		U
106-46-7	1,4-Dichlorobenzene	5		U
95-50-1	1,2-Dichlorobenzene	5		U
104-51-8	n-Butylbenzene	5		U
96-12-8	1,2-Dibromo-3-Chloropropane	5		U
120-82-1	1,2,4-Trichlorobenzene	5		U
87-68-3	Hexachlorobutadiene	5		U
91-20-3	Naphthalene	5		U
87-61-6	1,2,3-Trichlorobenzene	5		U

FORM I VOA

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CASE NARRATIVE

CLIENT: LAW ENGINEERING
SDG: TKL02

LANCASTER LABORATORIES

VOLATILES by GC/MS

LL NUMBERS:	SAMPLE CODES:	MATRIX SOIL	MATRIX WATER	COMMENTS
3376093	RGILL		X	
3376094	LVLTB		X	CLIENT BLANK

LABORATORY SUBMITTED QC:

VBLKL01	VBLKL01		X	METHOD BLANK
3373989	LCW-1		X	UNSPIKED
3373994	LCW-1MS		X	MATRIX SPIKE
3373995	LCW-1MSD		X	MATRIX SPIKE DUP
LCSWL01	LCSWL01		X	LAB CONTROL SAMPLE

SAMPLE PREPARATION:

No sample preparation was necessary for the VOA fraction.

ANALYSIS:

The method used for analysis was EPA SW846 Method 8260B.

Vinyl chloride was evaluated to the MDL for all samples.

No problems were encountered during the analysis of these samples.

QUALITY CONTROL and NONCONFORMANCE SUMMARY:

Only client requested compounds are addressed in this narrative.

All QC was within specifications.

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DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Case Narrative reviewed and approved by:

John F. Morton Date 5/17/07

John F. Morton, M.S., GC/MS Volatiles

Laboratory Analytical Reports
Manson Branch Surface Water Samples

[redacted]

Chain of Custody Record

Quanterra

UA-4124

Client: LAW

Address: 3200 TownPoint Dr

City: Kennesaw | State: GA | Zip Code: 30144

Project Name: TK - Louisville

Contract/Purchase Order/Quote No.:

Project Manager: Rhonda Quinn

Telephone Number (Area Code)/Fax Number: 770 421 3516 Fax 770 4213486

Site Contact:

Carrier/Waybill Number:

Date: 5/3/00 + 5/4/00

Lab Number:

Chain Of Custody Number: 59285

Page 1 of 1

Analysis: VOC 8260

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	VOC 8260
Manson Branch #1	5/3/00	1600	Grab	40 ml	VOA	3	HCl		3
Manson Branch #2	5/3/00	1620	Grab	40 ml	VOA	3	HCl		3
W. Jones	5/3/00	1750	Grab	40 ml	VOA	3	HCl		3
J Davis Jr	5/3/00	1820	Grab	40 ml	VOA	3	HCl		3
AP Jones Jr	5/4/00	1100	Grab	40 ml	VOA	3	HCl		3
Butch Dollar	5/4/00	1110	Grab	40 ml	VOA	3	HCl		3
Mattie Kittles	5/4/00	1145	Grab	40 ml	VOA	3	HCl		3
H. Jones	5/4/00	1245	Grab	40 ml	VOA	3	HCl		3
Trip Blank	5/4/00	1300				1			1

Special Instructions: VOC Constituents + Reporting limits per Rhonda Quinn

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Turn Around Time Required: ☐ Normal ☒ Rush 5 days

QC Level: ☐ I. ☐ II. ☐ III. IV

Project Specific (Specify):

	Date	Time
1. Relinquished By: Rhonda N. Quinn	5/4/00	1500
2. Relinquished By:		
3. Relinquished By:		

	Date	Time
1. Received By:		
2. Received By: [signature]	5/5/00	905
3. Received By:		

Comments:

DISTRIBUTION: WHITE - Stays with Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

15

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEK101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEK101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0E050218 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEK101 Date Extracted:05/09/00
Dilution factor: 1 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEP101 Date Extracted: 05/09/00
Dilution factor: 3.33 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	17	U
71-43-2	Benzene	17	U
108-86-1	Bromobenzene	17	U
74-97-5	Bromochloromethane	17	U
75-27-4	Bromodichloromethane	17	U
75-25-2	Bromoform	17	U
74-83-9	Bromomethane	33	U
104-51-8	n-Butylbenzene	17	U
135-98-8	sec-Butylbenzene	17	U
98-06-6	tert-Butylbenzene	17	U
56-23-5	Carbon tetrachloride	17	U
108-90-7	Chlorobenzene	17	U
124-48-1	Chlorodibromomethane	17	U
75-00-3	Chloroethane	33	U
67-66-3	Chloroform	17	U
74-87-3	Chloromethane	33	U
95-49-8	2-Chlorotoluene	17	U
106-43-4	4-Chlorotoluene	17	U
96-12-8	1,2-Dibromo-3-chloropropane	33	U
106-93-4	1,2-Dibromoethane	17	U
74-95-3	Dibromomethane	17	U
95-50-1	1,2-Dichlorobenzene	17	U
541-73-1	1,3-Dichlorobenzene	17	U
106-46-7	1,4-Dichlorobenzene	17	U
75-71-8	Dichlorodifluoromethane	33	U
75-34-3	1,1-Dichloroethane	17	U
107-06-2	1,2-Dichloroethane	17	U
156-59-2	cis-1,2-Dichloroethene	30	

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEP101 Date Extracted: 05/09/00
Dilution factor: 3.33 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	8.3	U
75-35-4	1,1-Dichloroethene	50	
78-87-5	1,2-Dichloropropane	17	U
142-28-9	1,3-Dichloropropane	17	U
594-20-7	2,2-Dichloropropane	17	U
563-58-6	1,1-Dichloropropene	17	U
123-91-1	1,4-Dioxane	830	U
100-41-4	Ethylbenzene	17	U
87-68-3	Hexachlorobutadiene	17	U
98-82-8	Isopropylbenzene	17	U
99-87-6	p-Isopropyltoluene	17	U
75-09-2	Methylene chloride	17	U
91-20-3	Naphthalene	17	U
103-65-1	n-Propylbenzene	17	U
630-20-6	1,1,1,2-Tetrachloroethane	17	U
79-34-5	1,1,2,2-Tetrachloroethane	17	U
127-18-4	Tetrachloroethene	17	U
108-88-3	Toluene	17	U
87-61-6	1,2,3-Trichlorobenzene	17	U
120-82-1	1,2,4-Trichlorobenzene	17	U
71-55-6	1,1,1-Trichloroethane	160	
79-00-5	1,1,2-Trichloroethane	17	U
79-01-6	Trichloroethene	460	
75-69-4	Trichlorofluoromethane	33	U
96-18-4	1,2,3-Trichloropropane	17	U
95-63-6	1,2,4-Trimethylbenzene	17	U
108-67-8	1,3,5-Trimethylbenzene	17	U
75-01-4	Vinyl chloride	6.7	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0E050218 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/05/00
Work Order: DCTEP101 Date Extracted: 05/09/00
Dilution factor: 3.33 Date Analyzed: 05/09/00
Moisture %:

QC Batch: 0131259

Client Sample Id: MANSON BRANCH #2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	17	U
95-47-6	o-Xylene	8.3	U

SAMPLE SUMMARY

A0F080204

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DEDAT	001	MANSON BRANCH #12	06/06/00	14:32
DEDC9	002	MANSON BRANCH SEEP #1 (WEST)	06/06/00	15:10
DEDCA	003	MANSON BRANCH #11	06/06/00	15:32
DEDCC	004	MANSON BRANCH #10	06/06/00	16:35
DEDCD	005	MANSON BRANCH #9	06/06/00	17:15
DEDCE	006	MANSON BRANCH #3	06/07/00	09:23
DEDCH	007	MANSON BRANCH SEEP #2 (WEST)	06/07/00	08:40
DEDCJ	008	MANSON BRANCH #4	06/07/00	09:40
DEDCK	009	MANSON BRANCH SEEP #3 (WEST)	06/07/00	10:00
DEDD1	010	MANSON BRANCH #5	06/07/00	10:08
DEDD3	011	MANSON BRANCH #6	06/07/00	10:45
DEDD5	012	MANSON BRANCH #7	06/07/00	11:07
DEDD7	013	MANSON BRANCH #8	06/07/00	11:22
DEDD8	014	TRIP BLANK	06/07/00	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody Record

Quanterra

QUA-4124

Client: Law Engineering & Environmental Services, Inc.	Project Manager: Rhonda Quinn	Date: 6/7/00	Chain Of Custody Number: 13528
Address: 3200 Town Point Drive, Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400/(770) 421-7025	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:		
Project Name: TK - Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt
Manson Branch #12	6/6/00	14:32	SW	3x 40ml	40ml	3	HCL	
Manson Branch Seep #1 (West)	↓	15:10	↓	↓	↓	↓	↓	
Manson Branch #11	↓	15:32	↓	↓	↓	↓	↓	
Manson Branch #10	↓	16:35	↓	↓	↓	↓	↓	
Manson Branch #9	↓	17:15	↓	↓	↓	↓	↓	
Manson Branch #3	6/7/00	0923	↓	↓	↓	↓	↓	
Manson Branch Seep #2 (West)	↓	0840	↓	↓	↓	↓	↓	
Manson Branch #4	↓	0940	↓	↓	↓	↓	↓	
Manson Branch Seep #3 (West)	↓	1000	↓	↓	↓	↓	↓	
Manson Branch #5	↓	1008	↓	↓	↓	↓	↓	
Manson Branch #6	↓	1045	↓	↓	↓	↓	↓	
Manson Branch #7	↓	1107	↓	↓	↓	↓	↓	
Manson Branch #8	↓	1122	↓	↓	↓	↓	↓	

ANALYSIS PER RHONDA QUINN

☆ Please use either Manson Branch #11 or Manson Branch #12 ~~for~~ spares for MS/MSD analysis.

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Turn Around Time Required: [ ] Normal [X] Rush

QC Level: [ ] I. [ ] II. [ ] III.

Project Specific (Specify):

	Date	Time		Date	Time
1. Relinquished By: Charles F Mott III	6/7/00	1445	1. Received By:		
2. Relinquished By:			2. Received By: [signature]	6/8/00	9:55
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Stays with Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

CASE NARRATIVE

A0F080204

The following report contains the analytical results for thirteen water samples and one quality control sample submitted to STL North Canton by Law Environmental, Inc. from the TK-Louisville Site. The samples were received on June 8, 2000, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided by electronic mail to Rhonda Quinn on June 21, 2000.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.9° C. The samples were received in wet ice.

A TRIP BLANK was received but not listed on the chain-of-custody. A volatile analysis was performed on this sample.

Two containers were received without labels. By process of elimination, the two containers were placed with sample MANSON BRANCH SEEP WEST #3.

GC/MS VOLATILES

The MS/MSD for batch 0171116 failed RPD criteria. The check sample associated with this batch was in control. This is believed to be a matrix effect; therefore, no further corrective action was taken.

Acetone, 2-Butanone, and 2-Hexanone failed the recovery criteria for the second source calibration check for instrument ux7 on 5/23/00. These are considered poor purging efficiency and the initial calibration is accepted.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL), the analytes were greater than 10 times the blank level for organics or 20 times for inorganics, or the associated sample(s) must be ND except for the common laboratory contaminants indicated below.

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria does not apply to samples that are diluted for organics or at a 4 times dilution for inorganics.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample are spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If the surrogate recoveries are outside criteria for environmental or MS/MSD samples, the batch is acceptable if the Method Blank, LCS, and LCSD surrogate recoveries are within acceptance criteria. The only exception is if the surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank and the associated sample(s) are ND, the batch is acceptable. If the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB, PAH, and Herbicide methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0F080204 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDAT101 Date Extracted: 06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #12

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
67-64-1	Acetone	20	U
75-15-0	Carbon disulfide	5.0	U
74-97-5	Bromochloromethane	5.0	U
540-59-0	1,2-Dichloroethene (total)	5.0	U
75-27-4	Bromodichloromethane	5.0	U
78-93-3	2-Butanone	20	U
75-25-2	Bromoform	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
74-83-9	Bromomethane	10	U
124-48-1	Dibromochloromethane	5.0	U
104-51-8	n-Butylbenzene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	20	U
135-98-8	sec-Butylbenzene	5.0	U
591-78-6	2-Hexanone	20	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
1330-20-7	Xylenes (total)	5.0	U
108-90-7	Chlorobenzene	5.0	U
110-54-3	n-Hexane	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDAT101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #12

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDAT101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #12

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDC9101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH SEEP #1 (WEST)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0 ✓	U
108-86-1	Bromobenzene	5.0 ✓	U
74-97-5	Bromochloromethane	5.0 ✓	U
75-27-4	Bromodichloromethane	5.0 ✓	U
75-25-2	Bromoform	5.0 ✓	U
74-83-9	Bromomethane	10 X	U
104-51-8	n-Butylbenzene	5.0 ✓	U
135-98-8	sec-Butylbenzene	5.0 ✓	U
98-06-6	tert-Butylbenzene	5.0 ✓	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10 X	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10 X	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10 X	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10 X	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID: A0F080204 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDC9101 Date Extracted: 06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH SEEP #1 (WEST)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250 ✓	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10 X	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0 ✓	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDC9101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH SEEP #1 (WEST)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCA101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #11

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCA101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #11

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCA101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #11

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCC101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCC101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCC101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCD101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCD101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 005
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCD101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCE101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCE101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 006
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCE101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH #3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCH101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH SEEP #2 (WEST)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	3.8	

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCH101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:

QC Batch: 0166470

Client Sample Id: MANSON BRANCH SEEP #2 (WEST)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 007
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCH101 Date Extracted:06/14/00
Dilution factor: 1 Date Analyzed: 06/14/00
Moisture %:
QC Batch: 0166470
Client Sample Id: MANSON BRANCH SEEP #2 (WEST)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCJ101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCJ101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 008
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCJ101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCK101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH SEEP #3 (WEST)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCK101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH SEEP #3 (WEST)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 009
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDCK101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH SEEP #3 (WEST)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Lab Sample ID:A0F080204 010

Sample WT/Vol: 5 / mL
Work Order: DEDD1101
Dilution factor: 1
Moisture %:

Date Received: 06/08/00
Date Extracted:06/16/00
Date Analyzed: 06/16/00

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD1101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 010
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD1101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD3101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD3101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 011
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD3101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD5101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD5101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 012
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD5101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 013
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD7101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 013
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD7101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WG Lab Sample ID:A0F080204 013
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD7101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: MANSON BRANCH #8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

FORM I

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WZ Lab Sample ID:A0F080204 014
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD8101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
100-42-5	Styrene	5.0	U
71-43-2	Benzene	5.0	U
108-86-1	Bromobenzene	5.0	U
74-97-5	Bromochloromethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	5.0	U
74-83-9	Bromomethane	10	U
104-51-8	n-Butylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
124-48-1	Chlorodibromomethane	5.0	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	10	U
95-49-8	2-Chlorotoluene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
106-93-4	1,2-Dibromoethane	5.0	U
74-95-3	Dibromomethane	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
75-71-8	Dichlorodifluoromethane	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	2.5	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WZ Lab Sample ID:A0F080204 014
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD8101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
156-60-5	trans-1,2-Dichloroethene	2.5	U
75-35-4	1,1-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
123-91-1	1,4-Dioxane	250	U
100-41-4	Ethylbenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
99-87-6	p-Isopropyltoluene	5.0	U
75-09-2	Methylene chloride	5.0	U
91-20-3	Naphthalene	5.0	U
103-65-1	n-Propylbenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-88-3	Toluene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
75-69-4	Trichlorofluoromethane	10	U
96-18-4	1,2,3-Trichloropropane	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
75-01-4	Vinyl chloride	2.0	U

LAW ENVIRONMENTAL INC

Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WZ Lab Sample ID:A0F080204 014
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 06/08/00
Work Order: DEDD8101 Date Extracted:06/16/00
Dilution factor: 1 Date Analyzed: 06/16/00
Moisture %:

QC Batch: 0171116

Client Sample Id: TRIP BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
136777-61-2	m-Xylene & p-Xylene	5.0	U
95-47-6	o-Xylene	2.5	U

FORM I

Analysis Request/ Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. # 2816 Sample # 3375185-93

VOC constituents + reporting limits per Rhonda Quinn

Please print. Instructions on reverse side correspond with circled numbers.

(1) Client: LAW Acct. #:
Project Name/#: TK - Louisville PWSID #:
Project Manager: Rhonda Quinn P.O.#
Sampler: RNQ Quote #:
Name of state where samples were collected: GA

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab (3)	Composite (3)	Matrix (4): Soil	Water (Potable / NPDES)	Other	Total # of Containers	8260 VOCs (5)	Remarks	Temperature of samples upon receipt (if requested) (6)
Monson Branch #1	5/3/00	1600	✓			✓		3	3		
Monson Branch #2	5/3/00	1620	✓			✓		3	3		
W. Jones	5/3/00	1750	✓			✓		3	3		
J Davis Jr	5/3/00	1820	✓			✓		3	3		
AP Jones Jr	5/4/00	1100	✓			✓		3	3		
Butch Dollar	5/4/00	1140 cm	✓			✓		3	3		
Mattie Kittles	5/4/00	1145	✓			✓		3	3		
H. Jones	5/4/00	1245	✓			✓		3	3		
Trip Blank			✓			✓		1	1		

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush 5 day s
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #: Fax #: 770 421 3516

(8) **Data Package Options** (please circle if requested)
QC Summary Type VI (Raw Data) SDG Complete? Yes No
Type I (Tier I) GLP
Type II (Tier II) Other
Type III (NJ Red. Del.)
Type IV (CLP)
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time (9)
Rhonda N. Quinn	5/4/00	1500			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	5/5/00	0935

Lancaster Laboratories
Where quality is a science.

ANALYTICAL RESULTS

Prepared for:

Law Engineering & Env. Svc Inc
3200 Town Point Drive NW
Suite 100
Kennesaw GA 30144

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 713533. Samples arrived at the laboratory on Friday, May 05, 2000.

Client Description	Lancaster Labs Number
Manson Branch #1 Grab Water Sample	3375185
Manson Branch #2 Grab Water Sample	3375186
W. Jones Grab Water Sample	3375187
J. Davis Jr. Grab Water Sample	3375188
A.P. Jones Jr. Grab Water Sample	3375189
Butch Dollar Grab Water Sample	3375190
Mattie Kittles Grab Water Sample	3375191
H. Jones Grab Water Sample	3375192
Trip Blank Grab Water Sample	3375193

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO	Law Engineering & Env. Svc Inc	Attn: Paul Brafford
1 COPY TO	Data Package Group	

Questions? Contact your Client Services Representative
Wendy K. Park at (717) 656-2300.

Respectfully Submitted,

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Lancaster Laboratories
Where quality is a science.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MNSB1

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375185
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s14.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	5		U	
75-09-2	Methylene Chloride	5		U	
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	5		U	
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	5		U	
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	5		U	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

X = Vinyl chloride reported to method detection limit

FORM I VOA

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Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

Lancaster Laboratories is a subsidiary of Thermo TerraTech Inc., a Thermo Electron Company.
See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MNSB1

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375185
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s14.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

FORM I VOA

Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MNSB2

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375186
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s16.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q	
75-71-8	Dichlorodifluoromethane	5		U	
74-87-3	Chloromethane	5		U	
75-01-4	Vinyl Chloride	2		U	X
74-83-9	Bromomethane	5		U	
75-00-3	Chloroethane	5		U	
75-69-4	Trichlorofluoromethane	5		U	
75-35-4	1,1-Dichloroethene	69			
75-09-2	Methylene Chloride	5		U	
156-60-5	trans-1,2-Dichloroethene	5		U	
75-34-3	1,1-Dichloroethane	5		U	
156-59-2	cis-1,2-Dichloroethene	36			
594-20-7	2,2-Dichloropropane	5		U	
74-97-5	Bromochloromethane	5		U	
67-66-3	Chloroform	5		U	
71-55-6	1,1,1-Trichloroethane	200			
563-58-6	1,1-Dichloropropene	5		U	
56-23-5	Carbon Tetrachloride	5		U	
71-43-2	Benzene	5		U	
107-06-2	1,2-Dichloroethane	5		U	
79-01-6	Trichloroethene	660		E	
78-87-5	1,2-Dichloropropane	5		U	
74-95-3	Dibromomethane	5		U	
123-91-1	1,4-Dioxane	250		U	
75-27-4	Bromodichloromethane	5		U	
108-88-3	Toluene	5		U	
79-00-5	1,1,2-Trichloroethane	5		U	
127-18-4	Tetrachloroethene	5		U	
142-28-9	1,3-Dichloropropane	5		U	
124-48-1	Dibromochloromethane	5		U	
106-93-4	1,2-Dibromoethane	5		U	

page 1 of 2

FORM I VOA

X = Vinyl chloride reported to method detection limit. KSM/14c 5/23/00

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MNSB2

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375186
Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s16.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
106-43-4	4-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U
87-68-3	Hexachlorobutadiene		5	U
91-20-3	Naphthalene		5	U
87-61-6	1,2,3-Trichlorobenzene		5	U

FORM I VOA

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MNSB2DL

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375186
Sample wt/vol: 1.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s17.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
75-71-8	Dichlorodifluoromethane	25	U	
74-87-3	Chloromethane	25	U	
75-01-4	Vinyl Chloride	10	U	X
74-83-9	Bromomethane	25	U	
75-00-3	Chloroethane	25	U	
75-69-4	Trichlorofluoromethane	25	U	
75-35-4	1,1-Dichloroethene	56		D
75-09-2	Methylene Chloride	25	U	
156-60-5	trans-1,2-Dichloroethene	25	U	
75-34-3	1,1-Dichloroethane	25	U	
156-59-2	cis-1,2-Dichloroethene	30		D
594-20-7	2,2-Dichloropropane	25	U	
74-97-5	Bromochloromethane	25	U	
67-66-3	Chloroform	25	U	
71-55-6	1,1,1-Trichloroethane	160		D
563-58-6	1,1-Dichloropropene	25	U	
56-23-5	Carbon Tetrachloride	25	U	
71-43-2	Benzene	25	U	
107-06-2	1,2-Dichloroethane	25	U	
79-01-6	Trichloroethene	490		D
78-87-5	1,2-Dichloropropane	25	U	
74-95-3	Dibromomethane	25	U	
75-27-4	Bromodichloromethane	25	U	
108-88-3	Toluene	25	U	
79-00-5	1,1,2-Trichloroethane	25	U	
127-18-4	Tetrachloroethene	25	U	
142-28-9	1,3-Dichloropropane	25	U	
124-48-1	Dibromochloromethane	25	U	
106-93-4	1,2-Dibromoethane	25	U	
108-90-7	Chlorobenzene	25	U	

page 1 of 2

FORM I VOA

X = Vinyl chloride reported to method detection limit. KEM/146 5/23/00

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MNSB2DL

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 3375186
Sample wt/vol: 1.00 (g/mL) mL Lab File ID: HP07163.i/00may10a.b/py10s17.d
Level: (low/med) LOW Date Received: 05/05/00
Moisture: not dec. _____ Date Analyzed: 05/10/00
Column: (pack/cap) CAP Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
630-20-6	1,1,1,2-Tetrachloroethane		25	U
100-41-4	Ethylbenzene		25	U
1330-20-7	m+p-Xylene		25	U
95-47-6	o-Xylene		25	U
100-42-5	Styrene		25	U
75-25-2	Bromoform		25	U
98-82-8	Isopropylbenzene		25	U
108-86-1	Bromobenzene		25	U
79-34-5	1,1,2,2-Tetrachloroethane		25	U
96-18-4	1,2,3-Trichloropropane		25	U
103-65-1	n-Propylbenzene		25	U
95-49-8	2-Chlorotoluene		25	U
106-43-4	4-Chlorotoluene		25	U
108-67-8	1,3,5-Trimethylbenzene		25	U
98-06-6	tert-Butylbenzene		25	U
95-63-6	1,2,4-Trimethylbenzene		25	U
135-98-8	sec-Butylbenzene		25	U
541-73-1	1,3-Dichlorobenzene		25	U
99-87-6	p-Isopropyltoluene		25	U
106-46-7	1,4-Dichlorobenzene		25	U
95-50-1	1,2-Dichlorobenzene		25	U
104-51-8	n-Butylbenzene		25	U
96-12-8	1,2-Dibromo-3-Chloropropane		25	U
120-82-1	1,2,4-Trichlorobenzene		25	U
87-68-3	Hexachlorobutadiene		25	U
91-20-3	Naphthalene		25	U
87-61-6	1,2,3-Trichlorobenzene		25	U

FORM I VOA

Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Serial Number: 004205

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Savannah Laboratories
a division of Severn Trent Laboratories, Inc

✓ 5102 LaRoche Avenue, Savannah, GA 31404 — Phone: (912) 354-7858 — Fax: (912) 352-0165
○ 2846 Industrial Plaza Drive, Tallahassee, FL 32301 — Phone: (850) 878-3994 — Fax: (850) 878-9504
○ 900 Lakeside Drive, Mobile, AL 36693 — Phone: (334) 666-6633 — Fax: (334) 666-6696
○ 6712 Benjamin Rd., Suite 100, Tampa, FL 33634 — Phone: (813) 885-7427 — Fax: (813) 885-7049

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
TK-Louisville		GA
STL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
~~Rhonda Quinn~~	12000-0-2050	
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Rhonda Quinn	7704213516	7704213486
CLIENT NAME	CLIENT EMAIL	
Rhonda Quinn		
CLIENT ADDRESS		
3200 Town Point Dr Kennesaw GA 30144		
COMPANY CONTRACTING THIS WORK (if applicable):		
LAW		

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ETC)

REQUIRED ANALYSES: 8260 VOCs

PAGE 1 OF 2

STANDARD REPORT DELIVERY ○

DATE DUE

EXPEDITED REPORT DELIVERY (SURCHARGE) ⊘

DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX	NUMBER OF CONTAINERS SUBMITTED	REMARKS
5/3/00	1600	Monson Branch #1	G	3	
5/3/00	1620	Monson Branch # 2	G	3	
5/3/00	1750	W. Jones	G	3	
5/3/00	1820	J Davis JR	G	3	
5/4/00	1100	AP Jones Jr	G	3	
5/4/00	1110	Butch Dollar	G	3	
5/4/00	1300	Trip Blank		1	
		VOC constituents and reporting limits per Rhonda Quinn			

HOLD

ORIGINAL

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Rhonda N. Quinn	5/4/00	1500						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL-SL LOG NO.	LABORATORY REMARKS:
J Swafford	5/5/00	12:10	YES / NO		5002929	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-1

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0931

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	5.0	U
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	5.0	U
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	5.0	U
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	5.0	U
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-1

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0931

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-2

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0932

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	5.0	U
74-87-3	CHLOROMETHANE	5.0	U
75-01-4	VINYL CHLORIDE	2.0	U
74-83-9	BROMOMETHANE	5.0	U
75-00-3	CHLOROETHANE	5.0	U
75-69-4	TRICHLOROFLUOROMETHANE	5.0	U
75-35-4	1 1-DICHLOROETHENE	52	
75-09-2	METHYLENE CHLORIDE	5.0	U
156-60-5	trans-1 2-DICHLOROETHENE	5.0	U
75-34-3	1 1-DICHLOROETHANE	5.0	U
594-20-7	2 2-DICHLOROPROPANE	5.0	U
156-59-2	cis-1 2-DICHLOROETHENE	27	
67-66-3	CHLOROFORM	5.0	U
74-97-5	BROMOCHLOROMETHANE	5.0	U
71-55-6	1 1 1-TRICHLOROETHANE	170	
56-23-5	CARBON TETRACHLORIDE	5.0	U
563-58-6	1 1-DICHLOROPROPENE	5.0	U
71-43-2	BENZENE	5.0	U
107-06-2	1 2-DICHLOROETHANE	5.0	U
79-01-6	TRICHLOROETHENE	640	E
78-87-5	1 2-DICHLOROPROPANE	5.0	U
75-27-4	BROMODICHLOROMETHANE	5.0	U
74-95-3	DIBROMOMETHANE	5.0	U
108-88-3	TOLUENE	5.0	U
79-00-5	1 1 2-TRICHLOROETHANE	5.0	U
127-18-4	TETRACHLOROETHENE	5.0	U
142-28-9	1 3-DICHLOROPROPANE	5.0	U
124-48-1	DIBROMOCHLOROMETHANE	5.0	U
106-93-4	1 2-DIBROMOETHANE	5.0	U
108-90-7	CHLOROBENZENE	5.0	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	5.0	U
100-41-4	ETHYL BENZENE	5.0	U
108-38-3	m,p-XYLENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-2

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 00932

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/09/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	5.0	U
100-42-5	STYRENE	5.0	U
75-25-2	BROMOFORM	5.0	U
98-82-8	ISOPROPYLBENZENE	5.0	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	5.0	U
108-86-1	BROMOBENZENE	5.0	U
96-18-4	1 2 3-TRICHLOROPROPANE	5.0	U
103-65-1	n-PROPYLBENZENE	5.0	U
95-49-8	2-CHLOROTOLUENE	5.0	U
108-67-8	1 3 5-TRIMETHYLBENZENE	5.0	U
106-43-4	4-CHLOROTOLUENE	5.0	U
98-06-6	tert-BUTYLBENZENE	5.0	U
95-63-6	1 2 4-TRIMETHYLBENZENE	5.0	U
135-98-8	sec-BUTYLBENZENE	5.0	U
99-87-6	p-ISOPROPYLTOLUENE	5.0	U
541-73-1	1 3-DICHLOROBENZENE	5.0	U
106-46-7	1 4-DICHLOROBENZENE	5.0	U
104-51-8	n-BUTYLBENZENE	5.0	U
95-50-1	1 2-DICHLOROBENZENE	5.0	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	5.0	U
120-82-1	1 2 4-TRICHLOROBENZENE	5.0	U
87-68-3	HEXACHLOROBUTADIENE	5.0	U
91-20-3	NAPHTHALENE	5.0	U
87-61-6	1 2 3-TRICHLOROBENZENE	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-2DL

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 00951

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	DICHLORODIFLUOROMETHANE	25	U
74-87-3	CHLOROMETHANE	25	U
75-01-4	VINYL CHLORIDE	10	U
74-83-9	BROMOMETHANE	25	U
75-00-3	CHLOROETHANE	25	U
75-69-4	TRICHLOROFLUOROMETHANE	25	U
75-35-4	1 1-DICHLOROETHENE	47	D
75-09-2	METHYLENE CHLORIDE	25	U
156-60-5	trans-1 2-DICHLOROETHENE	25	U
75-34-3	1 1-DICHLOROETHANE	25	U
594-20-7	2 2-DICHLOROPROPANE	25	U
156-59-2	cis-1 2-DICHLOROETHENE	25	D
67-66-3	CHLOROFORM	25	U
74-97-5	BROMOCHLOROMETHANE	25	U
71-55-6	1 1 1-TRICHLOROETHANE	140	D
56-23-5	CARBON TETRACHLORIDE	25	U
563-58-6	1 1-DICHLOROPROPENE	25	U
71-43-2	BENZENE	25	U
107-06-2	1 2-DICHLOROETHANE	25	U
79-01-6	TRICHLOROETHENE	440	D
78-87-5	1 2-DICHLOROPROPANE	25	U
75-27-4	BROMODICHLOROMETHANE	25	U
74-95-3	DIBROMOMETHANE	25	U
108-88-3	TOLUENE	25	U
79-00-5	1 1 2-TRICHLOROETHANE	25	U
127-18-4	TETRACHLOROETHENE	25	U
142-28-9	1 3-DICHLOROPROPANE	25	U
124-48-1	DIBROMOCHLOROMETHANE	25	U
106-93-4	1 2-DIBROMOETHANE	25	U
108-90-7	CHLOROBENZENE	25	U
630-20-6	1 1 1 2-TETRACHLOROETHANE	25	U
100-41-4	ETHYL BENZENE	25	U
108-38-3	m,p-XYLENE	25	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

02929-2DL

Lab Name: SAVANNAH LABORATORIES Contract:

Lab Code: SL Case No.: SAS No.: SDG No.: TKL01

Matrix: (soil/water) WATER Lab Sample ID: MONSON BRANCH #2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: O0951

Level: (low/med) LOW Date Received: 05/05/00

% Moisture: not dec. _____ Date Analyzed: 05/10/00

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
95-47-6	o-XYLENE	25	U
100-42-5	STYRENE	25	U
75-25-2	BROMOFORM	25	U
98-82-8	ISOPROPYLBENZENE	25	U
79-34-5	1 1 2 2-TETRACHLOROETHANE	25	U
108-86-1	BROMOBENZENE	25	U
96-18-4	1 2 3-TRICHLOROPROPANE	25	U
103-65-1	n-PROPYLBENZENE	25	U
95-49-8	2-CHLOROTOLUENE	25	U
108-67-8	1 3 5-TRIMETHYLBENZENE	25	U
106-43-4	4-CHLOROTOLUENE	25	U
98-06-6	tert-BUTYLBENZENE	25	U
95-63-6	1 2 4-TRIMETHYLBENZENE	25	U
135-98-8	sec-BUTYLBENZENE	25	U
99-87-6	p-ISOPROPYLTOLUENE	25	U
541-73-1	1 3-DICHLOROBENZENE	25	U
106-46-7	1 4-DICHLOROBENZENE	25	U
104-51-8	n-BUTYLBENZENE	25	U
95-50-1	1 2-DICHLOROBENZENE	25	U
96-12-8	1 2-DIBROMO-3-CHLOROPROPANE	25	U
120-82-1	1 2 4-TRICHLOROBENZENE	25	U
87-68-3	HEXACHLOROBUTADIENE	25	U
91-20-3	NAPHTHALENE	25	U
87-61-6	1 2 3-TRICHLOROBENZENE	25	U

APPENDIX E

CSR FIELD PROCEDURES

APPENDIX E FIELD PROCEDURES

Appendix E provides a description of the field procedures utilized for advancing soil borings, conducting soil sampling, installing monitoring wells, conducting ground-water sampling, procedures for field quality assurance and control, and decontamination. Documentation of monitoring well development is provided in Attachment 1 to this appendix. Field sampling reports for monitoring well purging and sampling are also provided Attachment 2 to this appendix. The Interstate Technology Regulatory Council (ITRC) Technical and Regulatory Guidance for Using Polyethylene Diffusion Bag Samplers to Monitor Volatile Organic Compounds in Groundwater is provided in Attachment 3 to this appendix.

E1.0 SOIL BORING AND SOIL SAMPLING PROCEDURES

The procedures used to advance soil borings and sample soils at the Thermo King – Louisville, Georgia site are described in the following sections. The sampling procedures for the CSR assessments were conducted in general accordance with USEPA Region 4 EISOPQAM (November 2001). Soil borings were advanced using direct-push technology, standard soil penetration testing procedures with hollow-stem augers, and roto-sonic drilling techniques. These procedures are described below.

E1.1 DIRECT-PUSH TECHNOLOGY DRILLING PROCEDURES AND SOIL SAMPLING

Soil borings were advanced and soil samples were collected using a direct-push technology (DPT). The DPT rig was used for borings less than 50 feet in depth. A truck-mounted DPT rig was used to advance soil borings by pushing or hammering metal rods through soils with hydraulic rams to selected depths. As the rods were advanced down through the soil, soil samples were collected in discrete intervals, four-feet in length, in a metal soil sampling tube lined with a disposable vinyl acetate sleeve. Soil samples were collected in four-foot intervals beginning at the ground surface and continuing until ground water was encountered. After each four-foot soil interval was collected, the rods were removed from the borehole and the soil sample encased in the vinyl acetate sleeve was removed from the metal sampling tube. The rods were reinserted into the borehole and advanced down through the next four foot interval of soil.

The four-foot vinyl acetate sleeve was labeled with the boring number and sample depth. The ends of the tube were capped with food-grade plastic wrap and tape. Holes were drilled into the tube and soil at one-foot intervals along the length of the tube. Small diameter polyethylene tubing was placed each hole and

a Photoionization Detector (PID) or Organic Vapor Analyzer (OVA) was used to qualitatively screen the soil in the field for volatile organic compounds (VOCs). Upon completion of field screening, the holes were sealed with tape and the tube was placed on ice, pending the results of the field screening of all of the soil samples from the boring. The soils were inspected visually for staining or discoloration. The lithology of the soil samples were classified in accordance with the Unified Soil Classification System (USCS). The PID or OVA were calibrated on a daily basis with isobutylene in air calibration gas according to the manufacturer's instructions. Soil samples were selected for laboratory analysis based on the field screening results where the PID or OVA indicated the presence of VOCs in the soils. The soil samples were selected for laboratory analysis after all of the soil samples from the boring had been screened. Those soil samples not selected for laboratory analysis were properly disposed of. Soil samples for VOC analysis were collected from the disposable sleeve using 5-gram EnCore™ soil containers. The sample containers and preservatives were supplied by the analyzing laboratory and are listed on Table E.1. Field personnel identified the location of the sample; documented the date and time the sample was obtained; the type of sample; type of preservative, and the site name. This information was documented in the field book. This same information was placed on the sample identification label and affixed to the sample container. Sample labels were filled out with indelible ink. The soil samples were packaged with ice and shipped under chain-of-custody protocol to the laboratory for analysis.

Upon completion of soil sampling, those borings not completed, as monitoring wells were abandoned by filling with bentonite/cement grout. The direct-push technology equipment was steam-cleaned prior to advancing each boring. Downhole sampling tools were steam-cleaned between each sample and between each boring to reduce the potential for cross contamination.

E1.2 SPLIT-SPOON SOIL SAMPLING PROCEDURES

Some soil borings were advanced using a truck-mounted drill rig and hollow-stem augers or mud-rotary and soil samples were collected using a split-spoon soil sampler. The soil samples collected using a split-spoon sampling device were collected in accordance with American Society Testing Materials (ASTM) Method D1686-84. Soil samples were collected on specified intervals from ground surface to ground water using the following procedures. At each sample interval, the split-spoon sampler measuring 1.4-inch I.D., 2-inch O.D. was inserted into the boring. The sampler was seated 6 inches to penetrate any loose cuttings and then driven an additional foot with blows of a 140-pound hammer falling 30 inches. The number of hammer blows required to drive the sampler the final foot was recorded and

designated the "standard penetration resistance". The penetration resistance when properly evaluated is an index to engineering properties of the soil. After each interval was sampled the boring was advanced to the next sample interval with the hollow stem augers or mud-rotary. Soil samples collected using a split-spoon sampler were collected for lithologic description, field screening for qualitative VOCs using a PID or OVA, and laboratory analysis. A small portion of each soil sample was removed from the split-spoon and placed in a "zip-lock" bag, sealed and set aside to allow for volatilization. These soil screening samples ("zip-lock" bag sample) were screened in the field for qualitative VOCs using a PID or OVA, and inspected for staining and odor. The lithology of the soil samples were classified in accordance with the Unified Soil Classification System (USCS). The PID or OVA was calibrated on a daily basis with isobutylene in air calibration gas according to the manufacturer's instructions. Soil samples for laboratory analyses were gently removed from the split-tube and placed on clean aluminum foil and securely wrapped and sealed with the aluminum foil and placed on ice pending the results of the field screening and visual inspection. Soil samples were selected for laboratory analysis based on the field screening results where the PID or OVA have indicated the presence of VOCs in the soils. Soil samples for laboratory analysis were collected per procedures described in Section E1.1.

E1.3 ROTO-SONIC DRILLING AND SOIL SAMPLING

Some of the soil borings were drilled using roto-sonic drilling techniques. The roto-sonic drilling employed the use of high frequency mechanical vibration coupled with low-speed rotation and down-pressure of the drill string to advance the cutting edge of a circular drill string. This method produced a uniform borehole while providing continuous core samples of soil as the casing was advanced into the ground. The processes used to advance boreholes are fracturing, shearing, and displacement. Drilling through cobbles, boulders, and rock is caused by fracturing of the material by the inertial movement of the drill bit. Shearing takes place in dense silts, clay and shales when the amplitude of the drill bit is high enough to overcome the elasticity of the formation material. Displacement occurs when unconsolidated formation material is fluidized by the vibrating drill string and moves the material away from the drill string. As a result, very little of the soil cuttings are conveyed to the surface. Most of the formation material enters the core barrel, except for small amounts that are pushed into the borehole wall. The roto-sonic rig used a dual wall drill-string system. The drill rig advanced a four-inch diameter inner core barrel for soil sampling and an outer six-inch diameter drilling casing. The core barrel was advanced ahead of the outer casing in 7 to 10-foot increments. The outer casing was advanced at the same time as the inner core barrel. The outer casing prevents cross-contamination and formation mixing and allows for very controlled placement of wells. Core

samples were removed directly from the core barrel and extruded into a plastic sleeve. Soil samples for laboratory analysis were collected per procedures described in Sections E1.1 and E1.2.

E1.4 HANDAUGER SOIL SAMPLING

Some shallow soil borings (five feet or less) were advanced using a three-inch diameter stainless steel handauger. The handauger bucket, extensions and handle were decontaminated prior to advancing each boring. At the designated sampling location, a handauger was twisted into the shallow soil to the selected sampling depth. Soils not used for sampling were placed to the side. Soils selected for sampling were removed from the handauger bucket using a decontaminated stainless steel spoon and placed in a decontaminated stainless steel bowl. Soil samples for laboratory analysis were collected from the stainless steel bowl without compositing. A portion of the soil sample was placed in a zip-lock bag and screened in the field for the presence of VOCs using a PID and visually inspected for staining. The soils were classified using the USCS in the same manner as soil samples collected from other borings. Upon completion of soil sampling, the handauger borings were abandoned by filling with cement.

E2.0 MONITORING WELL INSTALLATION AND GROUND-WATER SAMPLING

Ground-water samples were collected from DPT borings, roto-sonic drilled borings, and permanent monitoring wells. The procedures used to collect ground-water samples are described in the following sections.

E2.1 DIRECT-PUSH TECHNOLOGY GROUND-WATER SAMPLING

Ground-water samples were collected from DPT borings for laboratory analysis from the Uppermost water-bearing zone overlying the top of the Twiggs Clay. DPT borings were advanced to the top of the tan clay (top of Twiggs Clay) using methods described in Section E.1.1. Ground-water samples were usually collected from the shallowest ground water (water table conditions) and the top of the clay. The DPT water sampler consisted of a stainless-steel screen with an outer casing that was retractable to expose the screen at the desired sampling depth. Upon reaching the desired sampling depth, the screen was exposed allowing ground water to flow into the sampler from the exposed discrete zone. The ground-water samples were then collected using a peristaltic pump and dedicated tubing or a small-diameter bailer. The tubing was first lowered through the drive rods into the sampling screen. Prior to collecting the ground-water sample, the sample interval was purged a few minutes using the peristaltic

pump in order to reduce the amount of sediment in the subsequent ground-water sample. Ground-water samples obtained for VOC analysis were collected by drawing a column of water into the length of tubing using the peristaltic pump. The peristaltic pump was stopped and the tubing pulled from the boring with the water retained in the tubing. The pump was then turned on briefly to release the suction in the tube and allow the column of water to drain from the tubing into the sample container without passing through the pump's roller mechanism. The pH, specific conductivity, and temperature were measured and the readings recorded for the ground-water samples collected. These measurements were documented in field notes. After the ground-water sample was collected from the boring, the water sampler was removed from the borehole and the borehole backfilled with a cement-bentonite grout tremied from the bottom of the borehole to the ground surface. The ground-water samples were packaged with ice and shipped under chain-of-custody protocol to the laboratory for analysis as described in Section E.2.5.

E2.2 TYPE II (Single Casing) MONITORING WELL INSTALLATION

Some monitoring wells were installed on the site were constructed as single-cased ground-water quality monitoring wells. The monitoring wells were installed in soil borings drilled by a truck-mounted drill rig using mud-rotary or roto-sonic techniques. Monitoring wells were installed in accordance with guidance set forth in USEPA Region 4 EISOPQAM (November 2001). The single-cased monitoring wells were constructed to screen the Uppermost water-bearing zone in the soil above the top of the Twiggs Clay.

The monitoring well borings were drilled from the ground surface to the top of the tan clay of the Twiggs Clay formation. While the roto-sonic overshot casing was still in the borehole; the well pipe was inserted to the bottom of the borehole. The monitoring wells were constructed of two-inch I.D. flush joint, threaded Schedule 40 PVC pipe with ten feet of 0.010-inch machine slotted well screen. As the drilling casing was slowly retracted, clean 20/30-gradation silica filter sand was placed into the annulus between the well screen and the borehole using a tremie pipe. The sand filter pack was installed to approximately two to three feet above the top of the well screen and was capped with a bentonite-pellet seal approximately two to three feet thick. Clean potable water was used to set the sand pack if bridging occurred and to hydrate the bentonite-pellet seal. The bentonite-pellet seal was hydrated before the installation of the cement-bentonite grout seal. Proper placement of the filter sand and bentonite-pellet seal was confirmed by taped measurements. Cement-bentonite grout was installed in the annular space from the top of the bentonite-pellet seal to within approximately one foot of the ground surface using a tremie pipe. A locking, water-tight cap was installed

on the riser pipe and an above-grade lockable protective cover or a manhole protective cover, depending upon location, was installed over the well. Monitoring wells installed in the woods were completed with above-grade lockable protective covers. Monitoring well installed near the plant building in grassed and paved areas were completed with a manhole protective cover and a locking cap on the PVC well casing. A concrete well pad measuring approximately 3 feet by 3 feet by 4 inches was constructed around each well.

E2.3 MONITORING WELL INSTALLATION USING MULTIPLE-CASINGS

Some of the monitoring wells installed on the site were constructed as Type III (double-cased) or Type IV (triple-cased) ground-water quality monitoring wells. The monitoring wells were installed in soil borings drilled by truck-mounted roto-sonic drilling techniques. Monitoring wells were installed in accordance with guidance set forth in USEPA Region 4 EISOPQAM (November 2001). The multi-cased monitoring wells were constructed to minimize cross-contamination between the Uppermost water-bearing zone and the Intermediate and lower water-bearing zones. The installation procedures used to install the double and triple cased monitoring wells are described in the following sections.

E2.3.1 Type III (Double Casing) Monitoring Well Installation

Type III (double-cased) monitoring wells were installed to collect ground-water levels and ground-water quality data from the Intermediate water-bearing zone located below the Uppermost zone. The two-casing well construction was used to minimize the carrying down the VOCs present in the ground water in the Uppermost zone into the Intermediate zone. The depths of the casings were based on the depths of specific clay layers. The well installation began with the advancement of a 10-inch diameter boring from the ground surface to approximately five feet into the tan clay at the top of the Twiggs Clay formation, but not through the clay using roto-sonic drilling methods. An outer Schedule 40 PVC casing, 6-inches in diameter, was set into the borehole and tremie-grouted into place with a cement-bentonite grout to seal off the tan stiff clay. The purpose of the outer casing was to minimize the potential for contamination to be carried down into the deeper Intermediate water-bearing zone below the tan clay. The casing was allowed to set for a minimum of 24 hours prior to advancing the boring. After the grout was set, remaining grout inside the 6-inch casing was removed using potable water. The boring was not advanced until the water flushing the casing was visibly clean so as to prevent carrying grout down into the deeper water-bearing zones. The boring was advanced deeper using roto-sonic drilling methods. The six-inch diameter boring was drilled to below the tan clay to the next clay layer (blue-gray sandy clay) below the uppermost clay. An inner Schedule 40 PVC well casing, 2-inches ID, was installed from the ground

surface down to the well termination depth. The well was constructed with 15 feet of 0.01-inch machine slotted Schedule 40 PVC well screen. While the drilling casing was still in the borehole, clean 20/30-gradation silica filter sand was placed into the annulus between the well screen and the borehole wall using a tremie pipe and potable water. The sand filter pack was installed to approximately two to three feet above the top of the well screen and capped with a bentonite-pellet seal approximately two to three feet thick. Clean potable water was used to set the sand pack and to hydrate the bentonite-pellet seal. The bentonite-pellet seal was hydrated before the installation of the cement-bentonite grout seal. The proper placement of the filter sand and bentonite-pellet seal was confirmed by taped measurements. A cement-bentonite grout was installed in the annular space from the top of the bentonite-pellet seal to within approximately one foot of the ground surface using a tremie pipe. A locking, water-tight cap was installed on the riser pipe and either an above-grade lockable protective cover or a manhole protective cover, depending upon location, was installed over each well. Monitoring wells installed in the woods were completed with above-grade lockable protective covers. Monitoring well installed near the plant building in grassed and paved areas were completed with a manhole protective cover and a locking cap on the PVC well casing. A concrete well pad measuring approximately 3 feet by 3 feet by 4 inches was constructed around each well.

E2.3.2 Type IV (Triple Casing) Monitoring Well Installation

A Type IV (triple-cased) monitoring well was installed to collect ground-water levels and ground-water quality data from the Lower water-bearing zone located below the Uppermost and Intermediate water-bearing zones. The three-casing well construction was used to minimize the carry down of VOCs present in the ground water in the overlying water-bearing zones into the Lower zone. The depths of the casings were based on the depths of specific clay layers. The well installation began with the advancement of a pilot boring using roto-sonic drilling methods approximately 6 inches in diameter boring from the ground surface to approximately five feet into the tan clay at the top of the Twiggs Clay formation, but not through the clay. The pilot boring was reamed to 14 inches in diameter using mud-rotary drilling techniques. The first outer casing constructed of Schedule 40 PVC and 10-inches in diameter was set into the borehole and grouted into place with a cement-bentonite grout to seal off the tan stiff clay and minimizing the potential for contamination to be carried down into the deeper Intermediate water-bearing zone below the tan clay. The 10-inch first outer casing was tremie-grouted in-place. The casing was allowed to set for a minimum of 24 hours prior to advancing the boring. After the grout was set, remaining grout inside the 10-inch casing was removed using potable water. The boring was not advanced until the water flushing the casing was visibly clean so as to prevent carrying grout down into deeper water-bearing zones.

The boring was advanced through the Intermediate water-bearing zone using dual drilling casings (6-inch and 4-inch diameters) and roto-sonic drilling methods. The six-inch diameter pilot boring was drilled to below the tan stiff clay through the next deeper clay layer, a blue-gray sandy clay and terminated in a grayish-green sandy silty clay. The pilot boring was reamed to 10 inches in diameter using mud-rotary drilling techniques. The second outer casing constructed of Schedule 40 PVC and 6-inches in diameter was set into the borehole and grouted into place with a cement-bentonite grout to seal off the blue-gray and greenish-gray clay and minimizing the potential for contamination to be carried down into the deeper Lower water-bearing zone below the Uppermost and Intermediate water-bearing zones. The 6-inch second outer casing was tremie-grouted in-place. The casing was allowed to set for a minimum of 24 hours prior to advancing the boring. After the grout was set, any remaining grout inside the 6-inch casing was removed using potable water. The boring was not advanced until the water flushing the casing was visibly clean so as to prevent carrying grout down into deeper water-bearing zones.

The boring was advanced below the greenish-gray sandy silty clay using dual drilling casings (6-inch and 4-inch diameter) and roto-sonic drilling methods. The six-inch diameter boring was drilled through greenish-gray clay and silt stratum, gray limestone lenses and a silty fine to coarse sand and terminated at a light greenish-gray dry fine sandy silt. The silty fine to coarse sand zone above the light greenish-gray dry fine sandy silt contained ground water. An inner Schedule 40 PVC well casing, 2-inches ID, was installed from the ground surface down to the well termination depth. The well was constructed with 10 feet of 0.01-inch machine slotted Schedule 40 PVC well screen. While the drilling casing was still in the borehole, clean 20/30-gradation silica filter sand was placed into the annulus between the well screen and the borehole wall using a tremie pipe and potable water. The sand filter pack was installed to approximately two to three feet above the top of the well screen and capped with a bentonite-pellet seal approximately two to three feet thick. Clean potable water was used to set the sand pack and to hydrate the bentonite-pellet seal. The bentonite-pellet seal was hydrated before the installation of the cement-bentonite grout seal. The proper placement of the filter sand and bentonite-pellet seal was confirmed by taped measurements. A cement-bentonite grout was installed in the annular space from the top of the bentonite-pellet seal to within approximately one foot of the ground surface using a tremie pipe. A locking, water-tight cap was installed on the riser pipe and a manhole protective cover was installed over the well. A concrete well pad measuring approximately 3 feet by 3 feet by 4 inches was constructed around the well.

E2.4 WELL DEVELOPMENT

Upon completion of monitoring well installation activities, each newly installed monitoring well was developed. The purpose of well development was to remove excess sediment, recover any water lost during drilling, clear formational pathways which may have been blocked during drilling, and draw representative ground water into the well screen. Monitoring wells were developed in accordance with guidance set forth in USEPA Region 4 EISPOQAM (November 2001). Well development was conducted at least 24 hours after installation and at least 48 hours before sampling of each new monitoring well. The monitoring wells were developed using the pump and surge technique using a submersible pump. The development process was accomplished by causing the ground water within the well to move vigorously through the screen while removing the water and sediment from the well. The submersible pump was raised and lowered through the well screen section producing an agitation action. A bailer was also used to remove any sediment that had entered the well. Development continued until a minimum of five borehole volumes had been removed, less than 0.1 foot of sediment remains at the bottom of the monitoring well, and pH, specific conductance, temperature, and turbidity measurements had stabilized. In addition, the wells were developed to below 10 nephelometric turbidity units (NTUs). During the well development, pH, temperature, specific conductivity (SC), and turbidity were measured to evaluate the effectiveness of the development activities. Measurements were performed with a Horiba™ multi-meter or with Hanna™ multi-meter and turbidity meters. The meters were calibrated on a daily basis according to manufacturer's instructions. The wells were considered developed after five borehole volumes were removed and the water quality indicator parameters had stabilized. Stabilization of parameters was defined as less than 10 percent change between two consecutive readings. Water quality measurements were measured after the removal of each borehole volume and recorded on field forms provided in Attachment 1 of this appendix.

E2.5 GROUND-WATER SAMPLING

Ground-water samples were collected from new and existing monitoring wells. The procedures used to collect the samples are described below and were conducted in accordance with USEPA Region 4 Standard Operating Procedures EISOPQAM (November 2001).

E2.5.1 Preliminary Observations

Prior to sampling, each monitoring well was inspected for damage and usability. The well covers were carefully opened to limit the potential for foreign material to enter the well. Upon opening the well, a

PID or OVA measurement was collected. Prior to purging and sampling, the depth to ground water and total depth of the well was measured in each well with an electrical water level indicator or chalked-tape.

E2.5.2 Ground-water Level Measurement

Each well was marked with an easily identifiable permanent reference survey point that was located on the highest point of the well casing. The total depth of the well was measured from this survey point to the well bottom using a measuring tape. The depth to ground water was measured from the reference survey point to the ground-water surface in the well using an electrical water-level indicator or chalked-tape. The water-level probe indicator and tape were washed with an Alconox™ and water mixture and rinsed with isopropanol and rinsed with distilled water prior to each use.

An electric water level meter was used to measure the depth to water. The water level probe was lowered down the well until the meter's tone sounded indicating the probe had encountered water. The probe was raised and lowered a few inches after the tone first sounded to pinpoint the exact water level. The depth from the surveyed datum point on the well casing at which the tone first sounded was recorded to the nearest 0.01-foot. The depth to the ground water was then subtracted from the surveyed elevation of the casing surveyed reference point to determine the ground-water elevation.

The chalked-tape method consisted of coating the bottom two to three feet of the weighted end of a stainless steel measuring tape with non-toxic chalk. The weighted tape was slowly lowered into the well until it penetrated the ground-water surface. The tape was then held at an appropriate footage mark at the top of the well casing at the surveyed reference point. The footage mark was recorded as the "foot mark held at top of casing". The tape was then withdrawn from the well until the wetted length of the tape is visible. The wetted length was recorded as the "length of wetted tape". Measurements were recorded to the nearest 0.01-foot. The depth to the ground-water surface was calculated by subtracting the "length of wetted tape" measurement from the "foot mark held at top of casing" measurement. The depth to the ground water was then subtracted from the surveyed elevation of the casing surveyed reference point to determine the ground-water elevation. The total well depth was measured from the reference survey point to the bottom of the well and compared with the well construction record. The thickness of sediment in the well casing was also measured and recorded.

E2.5.3 Ground-Water Sampling Procedures

Two ground-water sampling procedures were used to collect ground-water samples from the monitoring wells at the site. The sampling procedures were conducted in general accordance with Region 4 USEPA EISOPQAM (November 2001). The first sampling procedure was to purge the monitoring well with a submersible pump and clean polyethylene tubing using low flow/low stress purge methodology and then collect the ground-water sample with a disposable Teflon bailer and clean nylon rope. This method was used to collect ground-water samples in 2000 through 2003 for VOCs analyses and in 2004 for metals analysis. The second sampling procedure used passive diffusion bags to collect ground-water samples in 2004 for VOCs. These sampling procedures are described in the following sections.

E2.5.3.1 Well Purging

Monitoring wells were purged prior to sampling to provide fresh formation water for sampling. This step of the sampling procedure was performed when ground-water samples were collected for analyses for metals or VOCs. Purging was conducted in accordance with procedures set forth in USEPA Region 4 EISOPQAM (November 2001). The low flow/low stress purging method was used. The low flow/low stress method consisted of removing three well volumes of water from a monitoring well at a rate that did not exceed the recharge rate of the monitoring well. USEPA Region 4 recommends a flow rate of about 100 milliliters (mls) +/- 20 mls per minute or pumping at a rate where the water level in the well does not fluctuate +/- 0.3 feet. The water level in the monitoring well was measured during pumping to determine if the pumping rate was exceeding the well's recharge rate. If the water level dropped during pumping this indicated that the well's recharge rate was being exceeded and the pumping rate was adjusted so that the water level fluctuated very minimally. Monitoring wells were purged using either a submersible pump or a peristaltic pump and dedicated polyethylene tubing. A submersible pump was used to purge when depth to ground water was greater than 25 feet. A peristaltic pump was used to purge when the depth to ground water was less than 25 feet. Purging was continued until a minimum of three well volumes had been removed, less than 0.1 foot of sediment remained at the bottom of the monitoring well, and pH, specific conductance, temperature, and turbidity measurements had stabilized. In addition, the well was purged to below 10 nephelometric turbidity units (NTUs).

The water quality parameters of temperature, pH, specific conductance and turbidity were measured with a Horiba™ multi-meter or with a Hydac™/Hanna™ meters and turbidity meter. The meters were calibrated on a daily basis according to manufacturer's instructions. The physical appearance of the ground water

removed during purging was also recorded. Purging was considered complete when the water quality parameters had stabilized. Stabilization of parameters was defined as: variation of pH less than 0.2 pH units between two consecutive readings, variation of temperature less than 0.5 degrees between two consecutive readings, and less than 10 percent variation of specific conductance between two consecutive readings.

E2.5.3.2 Ground-Water Sample Collection Using Bailers

Ground-water samples were collected from site monitoring wells in 2000 through 2004 using disposable Teflon bailers and clean nylon rope following purging. The bailers were used to collect ground-water samples for VOC analyses in 2000 through 2003 and for metals analyses in 2004. The procedures for collecting ground-water samples using bailers are described below.

The ground-water samples were obtained with a bailer immediately following purging with a submersible pump or a peristaltic pump utilizing low-flow/low stress purging techniques. Plastic sheeting was placed on the ground surface around each well before it was purged and sampled. After a well was purged with a pump, a clean disposal Teflon bailer attached to clean nylon rope was lowered into the well to collect the ground water. The bailer was removed from the well and the water decanted into the sample containers. Ground-water samples were not collected using the submersible pump or peristaltic pump. A new pair of gloves was used during the purging and sampling of each well. Sample containers and preservatives were supplied by the laboratory in accordance with Table E.1. Field personnel identified the location of the sample collected; documented the date and time the sample was obtained; the type of sample; and type of preservative. This information was documented on a field sampling form. This same information was also placed on the sample identification label and affixed to the sample container. Sample labels were filled out with indelible ink. The samples were individually placed in water-tight zip-lock bags and packed in a cooler with ice and shipped to the laboratory under chain-of-custody protocol.

E2.5.3.3 Ground-Water Sample Collection Passive Diffusion Bags

The second groundwater sampling procedure used passive diffusion bag samplers (PDBSs). The USEPA has approved the use of passive diffusion bag samplers (PDBS) for the collection of ground-water samples for VOCs analyses (ITRC 2004) (Attachment 3 of this appendix). PDB samplers were installed in 15 of the 24 monitoring wells on the TK site for the sampling performed in 2004. The PDBS were installed in the wells about 1 to 2 months prior to the scheduled sampling event and remained in the well

until samples were collected. The PDBS work by diffusion of VOC constituents in and out of the membrane bag until equilibrium is reached. The time required to reach equilibrium depends upon the rate of ground-water flow within the well, water temperature, and the VOCs of interest. The ITRC guidance suggests the PDBS remain the well a minimum of two weeks to one month prior to sampling, but not more than three months.

The PDBS assembly consists of a clean nylon rope tether attached to the underside of the water-tight well cap and suspended inside the well casing with a stainless steel weight at the bottom. The tethers were custom-made to each wells total depth and screen interval and tagged with a metal tag with the well number. The membrane bag constructed of a low-density polyethylene was attached to the tether at pre-determined depths within the slotted section of the well screen using stainless steel split rings. The membrane bags were filled with de-ionized reagent-grade water (ASTM Type I water) at the wellhead and immediately attached to the tether and lowered into each well. Initially, one PDB per five feet of well screen was installed in each well to determine if there was significant stratification of VOC constituents and concentrations in the monitoring wells. Wells with 15 feet of well screen were initially equipped with three PDBSs, wells with 10 feet of screen were equipped with two PDBSs and wells with 5 feet of screen were equipped with one PDBS. The same VOCs were detected in each of the multiple PDBs installed in each well at very similar concentrations thus indicating no significant stratification of VOC constituents or concentrations. Based on the results of the initial sampling, one passive diffusion bag was installed in each well near the top of the well screen where the highest concentrations of VOCs were detected in subsequent sampling events.

During the sampling events, the tethers and PDBS were removed from each well at the time of sampling. The PDBS was pierced with a disposable sampling tube dedicated to each well and each PDBS. The water was drained from the PDBS into pre-preserved VOC sample containers. Each PDBS is an individual sample, i.e., three PDBS were installed in one well, three VOC water samples are collected from the well. The water samples were handled and shipped under chain-of-custody protocol to the analyzing laboratory. The water samples were analyzed for the site-specific VOCs using USEPA Method 8260B. The used PDB was properly disposed of and the tether was stored in the well for use during the next sampling event.

E3.0 FIELD QUALITY ASSURANCE/QUALITY CONTROL SAMPLING

Field Quality Control/Quality Assurance (QA/QC) samples were collected with the soil and ground-water samples to assist with evaluation of analytical data quality. The field QA/QC samples for soil and water included blind duplicates, equipment rinse blanks, matrix spike and matrix spike duplicate and trip blanks.

E3.1 BLIND DUPLICATES

Blind duplicates are designed as a check of laboratory accuracy and precision as well as reproducibility of sample collection, handling, shipping, and storage. Generally, one blind duplicate was collected for approximately 20 samples submitted to the laboratory. Blind duplicates were collected by filling separate containers with additional volumes of soil or ground water from the same source and location. The containers for the duplicate samples were labeled with a "dummy" sample identification that the laboratory could not distinguish as a duplicate sample. Sampling personnel documented on the field form which samples were duplicates and their associated original sample.

E3.2 FIELD EQUIPMENT BLANKS

Field equipment blanks are designed to address cross-contamination in the field between sampling locations due to deficient field cleaning procedures. The field equipment blank also addresses field preservation procedures, environmental site interference, integrity of the source water for field cleaning and those concerns not singularly addressed by the trip blank. Field equipment blanks were prepared from a particular piece of sampling equipment that was employed for sample collection and subsequently decontaminated in the field. Generally, one field equipment blank was collected per piece of equipment. Field equipment blanks were prepared by pouring distilled water over the sampling equipment after the execution of the last step of proper field decontamination protocol and the rinsate collected in the appropriate containers. At least one sample of the potable water used for decontaminating sampling equipment was collected during the sampling event and analyzed for VOCs using USEPA Method 8260B.

E3.3 MATRIX SPIKE AND MATRIX SPIKE DUPLICATE

Matrix spike (MS) and matrix spike duplicates (MSD) are designed to measure the percent recovery of a compound, the precision and accuracy of the analyzing method and to evaluate matrix interferences. Generally, one set of MS and MSD were collected for every 20 samples per matrix submitted to the

laboratory. MS and MSD samples were collected by filling additional containers with additional volumes of soil or ground water from the same source and location as the original sample. The MS/MSD sample containers were labeled with the original sample location identification and the suffix of MS/MSD. The MS/MSD samples were shipped to the laboratory unspiked. The laboratory spiked the samples with specific concentrations of specific compounds depending upon the analytical methods. The same methods used to analyze the investigative samples were also used to analyze the MS and MSD samples.

E3.4 TRIP BLANKS

Trip blanks are designed to address cross contamination derived from improper sample container cleaning preparation, blank source water contamination, samples cross-contamination during storage and transport, and extraneous environmental conditions affecting the sampling event to and from the site, including delivery to the laboratory. Trip blanks were prepared by the laboratory in 40-milliliter vials using organic-free water certified by the laboratory. The blanks were sealed in the laboratory and placed in the sample shipping coolers in which investigative samples were stored and transported. Trip blanks were included with sample shipments that contain samples for VOC analysis. Trip blanks were analyzed for VOCs using USEPA Method 8260B.

E4.0 FIELD SAMPLE RECORD KEEPING AND CUSTODY PROCEDURES

Field documentation and custody procedures used at the TK Louisville site are described below.

E4.1 FIELD DOCUMENTATION

Field activities were recorded in a field notebook on a daily basis. Sampling data, boring information and well construction were documented on appropriate field forms. To provide for proper identification in the field and proper tracking in the laboratory, samples were labeled in a clear and consistent fashion with a waterproof permanent marker. The field notebook generally contained the following information recorded on a daily basis: project name and location, date of work, names of field team members on-site, arrival and departure times of field team, activities conducted, description of sample collection equipment and field analytical equipment, documentation of equipment calibration, and weather conditions.

E4.2 CHAIN OF CUSTODY

Sample custody was initiated at the time of sample collection by placing the labeled samples into a cooler with ice in the possession of the sampling personnel. Sampling personnel maintained possession of the samples from time of collection until the samples were relinquished to the laboratory or the courier. A line item on the chain-of-custody record was filled out by the sampling personnel for each sample collected and submitted to the laboratory. The chain-of-custody record was used to track custody of samples during transport and shipping. Prior to sample shipping, the field representative signed, dated, and listed the time of relinquish and confirmed the completeness of descriptive information contained on the form prior to relinquishing the samples into the custody of the laboratory. The chain-of-custody form was enclosed in a water-tight plastic bag and attached to the inside of the sample cooler lid. Each individual who subsequently assumed responsibility for the samples signed the chain-of-custody record. Custody seals were also attached to the exterior of the sample coolers, signed and dated upon relinquishment. The field chain-of-custody record was terminated upon laboratory receipt of samples. All entries were recorded in ink.

E5.0 DECONTAMINATION PROCEDURES

Decontamination was performed in accordance with the following standard operating procedures and USEPA Region 4 EISOPQAM (November 2001). Equipment that came in contact with potentially contaminated materials, soil or water was cleaned prior to each use on this project. Decontamination consisted of a combination of steam cleaning and/or Alconox™ soap wash and potable water rinse.

Drilling rigs and downhole equipment were cleaned and decontaminated at a designated decontamination station before each boring or monitoring well was drilled or installed. Equipment was inspected before use to determine if fluids (oils, lubricants, hydraulic fluids, etc.) were leaking. Drilling equipment and downhole equipment were decontaminated as follows:

- The entire rig was steam cleaned upon arrival on-site and before departure from site.
- The back of the rig, including the jacks, mast, kelly-bar, platform, hoists, spindles, cathead, etc., were steam cleaned between borings and monitoring wells.
- All downhole tools including drilling rods, sampling tools, and drill bits were steam cleaned between borings and monitoring wells.

Sampling tools were decontaminated between each sample collection as described below:

- Steam cleaned or
- Clean with a brush and laboratory grade, phosphate free detergent (Alconox™) mixed with potable water
- Rinse with tap water
- Rinse with pesticide-reagent grade isopropanol
- Flush with distilled water and allow to air dry as long as possible.

The following cleaning procedures were used for sampling equipment that was not disposable prior to the collection of each sample:

- Clean with tap water and laboratory-grade, phosphate-free detergent (Alconox™) using a brush to remove particulate matter and surface films.
- Rinse thoroughly with tap water.
- Rinse with pesticide-reagent grade isopropanol.
- Rinse thoroughly with organic-free or distilled water and allow to air dry as long as possible.
- The equipment was wrapped with aluminum foil or clean plastic sheeting, if appropriate, to prevent contamination if the equipment is stored or transported.

Table E.1: Sample Containers, Preservation Methods, and Holding Time for Laboratory Analysis

Parameter	Container	Preservation	Holding Time
WATER SAMPLES			
Organic Compounds			
VOCs	Three, 40-ml VOA vials with Teflon septa	HCl to pH<2	14 days until analysis (7 days hold time unpreserved)
Metals			
Total Site-specific Metals	1, 1-liter glass	HNO_3	6 months hold time
Dissolved Site-specific Metals	1, 1-liter glass	unpreserved	Filtered within 24 hours and then preserve, 6 months hold time
SOIL SAMPLES			
Organic Compounds			
VOCs	3 Encore™ samplers and 4-oz jar	cool, 4° C	48 hours until analysis
SPLP VOCs	One 8-oz jar	cool, 4° C	48 hours until analysis
Physical Testing Grain Size Specific Gravity Falling Head Permeability Water Retention	One 3-foot Shelby Tube and 8-oz jar	none	no hold time
pH	4-oz jar	cool, 4° C	24 hours until analysis
TOC	4-oz jar	cool, 4° C	28 days until analysis

Sources:
United States Environmental Protection Agency Test Methods for Evaluating Solid Waste, Physical/Chemical Method, Third Edition; SW-846, July 1992.

HCl = Hydrochloric acid
ml = milliter
VOA = volatile organic analysis
oz = ounce
° C = degrees Celsius
TOC = Total Organic Carbon

ATTACHMENT 1

WELL DEVELOPMENT DATA

Groundwater Monitoring Data Log

Well No./Designation MW-1 Date: 02/25/00

Site Data

Site Name: Thermo King Corporation ESC Sampling Team KJR & BM

Site Address: 1430 Highway 24 East Louisville, GA ESC project No.: 185754

Weather Conditions: Clear 50-55^0 F

Well Description

Well Location: West side of facility on the outside of the fence

Well Security: Secured flush mount with expansion plug and padlock

Casing Material: Inner PVC Outer NA

Organic Vapors (PID, OVA, TIP): Wellhead _____ ppm

Breathing Zone _____ ppm

Nonaqueous Phase (thickness): NM

Reference Point (e.g., top of PVC casing): TOC

Purge Data

Purge Method: Submersible pump at low flow

(Note: Allow water level to equilibrate after removing well cap)

Total Well Depth (TD): 75.0 ft Depth to Water (DTW): 48.10

Casing Inner Diameter (CID): 2 inches

To calculate well volume: Well Vol.(gal)=$(CID)^2(0.04)(TD-DTW)$

Well Volume: 4.3 gal x 3=Purge Volume 12.9 gal

Purge Time: Begin 0720 End 0830

Other Parameters

1.5 Gallons: Temp 13.2 pH 6.84 Spec. Cond. 0.597 Turb. 481 Other _____

2.25 Gallons: Temp 13.9 pH 7.19 Spec. Cond. 0.527 Turb. 10 Other _____

3 Gallons: Temp 13.0 pH 7.20 Spec. Cond. 0.334 Turb. 10 Other _____

4 Gallons: Temp 14.6 pH 7.14 Spec. Cond. 0.507 Turb. 10 Other _____

5 Gallons: Temp 15.9 pH 7.00 Spec. Cond. 0.483 Turb. 10 Other _____

5.5 Gallons: Temp 15.8 pH 6.99 Spec. Cond. 0.482 Turb. 10 Other _____

Volume Purged: 5.5 Purged Dry: (Yes) No

Disposal Method for Purgewater: DOT approved 55-gallon steel drum

Water Description

Odor: Prepurge _____ Postpurge _____

Color: Prepurge cloudy Postpurge clear

Sampling Data

Sampling Method: Disposable 1' Teflon Bailer

Sampling Time: Begin 1245 End 1245

Analytical Parameters (circle appropriate parameters):

(VOCs) BNA BNE Total (Unfiltered) Metals

Dissolved (Filtered) Metals TPH PCB Cyanide

Other: _____

Comments: _____

Groundwater Monitoring Data Log

Well No./Designation MW-2 Date: 02/25/00

Site Data

Site Name: Thermo King Corporation ESC Sampling Team KJR & BM

Site Address: 1430 Highway 24 East Louisville, GA ESC project No.: 185754

Weather Conditions: Clear 60^0 F

Well Description

Well Location: Southeastern side of facility on the outside of the fence

Well Security: Secured flush mount with expansion plug and padlock

Casing Material: Inner PVC Outer NA

Organic Vapors (PID, OVA, TIP): Wellhead _____ ppm

Breathing Zone _____ ppm

Nonaqueous Phase (thickness): NM

Reference Point (e.g., top of PVC casing): TOC

Purge Data

Purge Method: Submersible pump at low flow

(Note: Allow water level to equilibrate after removing well cap)

Total Well Depth (TD): 58.0 ft Depth to Water (DTW): 38.95

Casing Inner Diameter (CID): 2 inches

To calculate well volume: Well Vol.(gal)=$(CID)^2(0.04)(TD-DTW)$

Well Volume: 3.0 gal x 3=Purge Volume 9.0 gal

Purge Time: Begin 1140 End 1355

Other Parameters

Prepurge: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

1 Volume: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

2 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

3 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

4 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

5 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume Purged: 10 Purged Dry: Yes (No)

Disposal Method for Purgewater: DOT approved 55-gallon steel drum

Water Description

Odor: Prepurge _____ Postpurge _____

Color: Prepurge cloudy Postpurge clear

Sampling Data

Sampling Method: Disposable 1' Teflon Bailer

Sampling Time: Begin 1400 End 1400

Analytical Parameters (circle appropriate parameters):

(VOCs) BNA BNE Total (Unfiltered) Metals

Dissolved (Filtered) Metals TPH PCB Cyanide

Other: _____

Comments: Submersible pump not operating properly, completed purging with bailer.
Water quality meter not working.

Groundwater Monitoring Data Log

Well No./Designation MW-3 Date: 02/25/00

Site Data

Site Name: Thermo King Corporation ESC Sampling Team KJR & BM

Site Address: 1430 Highway 24 East Louisville, GA ESC project No.: 185754

Weather Conditions: Clear 70-75^0 F

Well Description

Well Location: Eastern side of facility on the outside of the fence, in employee parking lot

Well Security: Secured flush mount with expansion plug and padlock

Casing Material: Inner PVC Outer NA

Organic Vapors (PID, OVA, TIP): Wellhead _____ ppm

Breathing Zone _____ ppm

Nonaqueous Phase (thickness): NM

Reference Point (e.g., top of PVC casing): TOC

Purge Data

Purge Method: Submersible pump at low flow

(Note: Allow water level to equilibrate after removing well cap)

Total Well Depth (TD): 60.0 ft Depth to Water (DTW): 42.05

Casing Inner Diameter (CID): 2 inches

To calculate well volume: Well Vol.(gal)=$(CID)^2(0.04)(TD-DTW)$

Well Volume: 3.4 gal x 3=Purge Volume 10.0 gal

Purge Time: Begin 1050 End 1130

Other Parameters

Prepurge: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

1 Volume: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

2 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

3 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

4 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

5 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume Purged: 6 Purged Dry: (Yes) No

Disposal Method for Purgewater: DOT approved 55-gallon steel drum

Water Description

Odor: Prepurge _____ Postpurge _____

Color: Prepurge cloudy Postpurge clear

Sampling Data

Sampling Method: Disposable 1' Teflon Bailer

Sampling Time: Begin 1230 End 1230

Analytical Parameters (circle appropriate parameters):

(VOCs) BNA BNE Total (Unfiltered) Metals

Dissolved (Filtered) Metals TPH PCB Cyanide

Other: _____

Comments: Water quality meter not working.

Groundwater Monitoring Data Log

Well No./Designation MW-4 Date: 02/25/00

Site Data

Site Name: Thermo King Corporation ESC Sampling Team KJR & BM

Site Address: 1430 Highway 24 East Louisville, GA ESC project No.: 185754

Weather Conditions: Clear 70-75^0 F

Well Description

Well Location: Eastern side of facility, near WWTP in employee parking lot

Well Security: Secured flush mount with expansion plug and padlock

Casing Material: Inner PVC Outer NA

Organic Vapors (PID, OVA, TIP): Wellhead _____ ppm

Breathing Zone _____ ppm

Nonaqueous Phase (thickness): NM

Reference Point (e.g., top of PVC casing): TOC

Purge Data

Purge Method: Disposable Teflon Bailer

(Note: Allow water level to equilibrate after removing well cap)

Total Well Depth (TD): 58.0 ft Depth to Water (DTW): 40.51

Casing Inner Diameter (CID): 2 inches

To calculate well volume: Well Vol.(gal)=$(CID)^2(0.04)(TD-DTW)$

Well Volume: 2.79 gal x 3=Purge Volume 8.4 gal

Purge Time: Begin 1330 End 1510

Other Parameters

Prepurge: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

1 Volume: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

2 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

3 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

4 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

5 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume Purged: 8.5 gallons Purged Dry: Yes (No)

Disposal Method for Purgewater: DOT approved 55-gallon steel drum

Water Description

Odor: Prepurge _____ Postpurge _____

Color: Prepurge cloudy Postpurge clear

Sampling Data

Sampling Method: Disposable 1' Teflon Bailer

Sampling Time: Begin 1515 End 1515

Analytical Parameters (circle appropriate parameters):

(VOCs) BNA BNE Total (Unfiltered) Metals

Dissolved (Filtered) Metals TPH PCB Cyanide

Other: _____

Comments: Water quality meter not working.

Groundwater Monitoring Data Log

Well No./Designation MW-5 Date: 02/25/00

Site Data

Site Name: Thermo King Corporation ESC Sampling Team KJR & BM

Site Address: 1430 Highway 24 East Louisville, GA ESC project No.: 185754

Weather Conditions: Clear 70-75^0 F

Well Description

Well Location: Near eastern property boundary, near woods

Well Security: Secured flush mount with expansion plug and padlock

Casing Material: Inner PVC Outer NA

Organic Vapors (PID, OVA, TIP): Wellhead _____ ppm

Breathing Zone _____ ppm

Nonaqueous Phase (thickness): NM

Reference Point (e.g., top of PVC casing): TOC

Purge Data

Purge Method: Submersible pump

(Note: Allow water level to equilibrate after removing well cap)

Total Well Depth (TD): 54.0 ft Depth to Water (DTW): 40.18

Casing Inner Diameter (CID): 2 inches

To calculate well volume: Well Vol.(gal)=$(CID)^2(0.04)(TD-DTW)$

Well Volume: 2.21 gal x 3=Purge Volume 6.63 gal

Purge Time: Begin 0900 End 1000

Other Parameters

1.5 Gallons: Temp 17.9 pH 7.25 Spec. Cond. 0.284 Turb. 10 Other _____

3.5 Gallons: Temp 18.1 pH 7.44 Spec. Cond. 0.285 Turb. 10 Other _____

5.0 Gallons: Temp _____ pH _____ Spec. Cond. _____ Turb. _____ Other _____

7 Gallons: Temp _____ pH _____ Spec. Cond. _____ Turb. _____ Other _____

Volume Purged: 7 gallons Purged Dry: Yes (No)

Disposal Method for Purgewater: DOT approved 55-gallon steel drum

Water Description

Odor: Prepurge _____ Postpurge _____

Color: Prepurge cloudy Postpurge clear

Sampling Data

Sampling Method: Disposable 1' Teflon Bailer

Sampling Time: Begin 1015 End 1015

Analytical Parameters (circle appropriate parameters):

(VOCs) BNA BNE Total (Unfiltered) Metals

Dissolved (Filtered) Metals TPH PCB Cyanide

Other: _____

Comments: Water quality meter not working after 4 gallons.

Groundwater Monitoring Data Log

Well No./Designation MW-6 Date: 02/25/00

Site Data

Site Name: Thermo King Corporation ESC Sampling Team KJR & BM

Site Address: 1430 Highway 24 East Louisville, GA ESC project No.: 185754

Weather Conditions: Clear 70-75^0 F

Well Description

Well Location: Eastern side of facility, near WWTP in employee parking lot

Well Security: Secured flush mount with expansion plug and padlock

Casing Material: Inner PVC Outer NA

Organic Vapors (PID, OVA, TIP): Wellhead _____ ppm

Breathing Zone _____ ppm

Nonaqueous Phase (thickness): NM

Reference Point (e.g., top of PVC casing): TOC

Purge Data

Purge Method: Disposable Teflon Bailer

(Note: Allow water level to equilibrate after removing well cap)

Total Well Depth (TD): 48.0 ft Depth to Water (DTW): 31.69

Casing Inner Diameter (CID): 2 inches

To calculate well volume: Well Vol.(gal)=$(CID)^2(0.04)(TD-DTW)$

Well Volume: 2.6 gal x 3=Purge Volume 7.8 gal

Purge Time: Begin 0930 End 1025

Other Parameters

Prepurge: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

1 Volume: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

2 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

3 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

4 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

5 Volumes: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume Purged: _____ Purged Dry: (Yes) No

Disposal Method for Purgewater: DOT approved 55-gallon steel drum

Water Description

Odor: Prepurge _____ Postpurge _____

Color: Prepurge cloudy Postpurge clear

Sampling Data

Sampling Method: Disposable 1' Teflon Bailer

Sampling Time: Begin 1030 End 1030

Analytical Parameters (circle appropriate parameters):

(VOCs) BNA BNE Total (Unfiltered) Metals

Dissolved (Filtered) Metals TPH PCB Cyanide

Other: _____

Comments: Water quality meter not working.

LAW
RESOURCES CREATING SOLUTIONS

JOB NAME T K Louisville JOB NUMBER 2000-0-2050

BY RAS DATE 2/12/03 CHECKED _____ DATE 2/12/03 SHEET 1 OF 1

WELL DEVELOPMENT DATA

- WELL NO. MW-7
- DATE OF INSTALLATION: 2/6/03 DATE OF DEVELOPMENT: 2/12/03
- STATIC WATER LEVEL: Before Development 37.3 FT.; 24 Hours After Development _____FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 100-200 gal GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT none GAL.

Volume Removed (gal)	pH	Specific Cond. (u mhos)	Temp. (C°)	Time elapsed (min)	Notes
1	8.13	270	23	1	turbid Start at 13:35
10	7.12	380	22	17	slightly turbid
27	7.28	270	21	40	clear
40	7.39	270	21	50	crystal clear
50	7.22	260	21	60	crystal clear
60	7.24	260	21	70	crystal clear
					Finish development
					14:45

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL _____FT.
- SCREEN LENGTH 10 ft FT.
- DEPTH TO TOP OF SEDIMENT: Before Development 56.2 FT.; After Development 56.2 FT.
- PHYSICAL CHARACTER OF WATER: _____
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: Grundfos Rudi-Flex 2
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: _____
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE _____FT.
- TIME FOR REMOVAL: 1 hr 10 min. Hr./ Min.
- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW ENGINEERING TESTING COMPANY JOB NAME TK-Louisville JOB NO. 12000-0-2050

BY Erica Summers DATE 2/17/03 CK _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

1. Well No. MW-7
2. Date of Installation: 2/6/03
3. Date of Development: 2-17-03
4. Static Water Level: Before Dev. 37.1ft ft.; 24 Hours After _____ ft.
5. Quantity of Water Loss During Drilling, If Used _____ Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. 25 Gal.

	Start	During		End
7. Specific Conductance (umhos/cm)	.469	.405	.400	.379
Temperature (c°)	16.9	20.3	19.4	19.7
PH (s.u.)	6.39	6.71	6.68	6.67

8. Depth From Top of Well Casing to Bottom of Well 58 ft.
9. Screen Length 10 ft.
10. Depth to Top of Sediment: Before Dev. _____ ft.; After Dev. _____ ft.
11. Physical Character of Water: Clear
12. Type and Size of Well Development Equipment: _____
13. Description of Surge Technique, If Used: Every 10 minutes surge using grundfos pump
14. Height of Well Casing Above Ground Surface: _____ ft.
15. Quantity of Water Removed: _____ Gal.

    Time for Removal: _____ Hr./Min.
16. 1-Pint Water Sample Collected: _____ (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW
RESOURCES CREATING SOLUTIONS

JOB NAME TK Louisville JOB NUMBER 12000-0-2050

BY RLS DATE 2/12/03 CHECKED _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

- WELL NO. MW-8
- DATE OF INSTALLATION: _____ DATE OF DEVELOPMENT: 2/12/03
- STATIC WATER LEVEL: Before Development 45.2 FT.; 24 Hours After Development _____FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 100-200 gal GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT _____GAL.

Volume Removed (gal)	pH	Specific Cond. (umhos)	Temp. (C°)	Elapsed Time (min)	Notes
1	11.38	2000	20.0	1	moderately Turbid Start at 17:10
10	11.54	850	19.5	15	moderately turbid up flow rate Purged dry at
20	9.62	220	19.0	30	15 gal - reduce flow rate moderately turbid
25	9.17	230	19.0	45	Purged dry at 20+gal reduce flow rate moderately turbid
30	9.16	220	19.0	60	slightly turbid
35	8.90	230	19.0	70	slightly turbid
40	8.93	230	19.0	80	Very slightly turbid.
					Finish development 18:30

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL _____FT.
- SCREEN LENGTH 10 FT.
- DEPTH TO TOP OF SEDIMENT: Before Development 68.8 FT.; After Development _____FT.
- PHYSICAL CHARACTER OF WATER: _____
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: Grundfos Rigdi Flow 2
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: _____
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE _____FT.
- TIME FOR REMOVAL: 1 hr. 20 min Hr./ Min.
- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW ENGINEERING TESTING COMPANY JOB NAME Thermo King Louisville, Ga. JOB NO. 12000-0-2050

BY G. Orzechowski DATE 2/17/03 CK _____ DATE _____ SHEET ____ OF ____

WELL DEVELOPMENT DATA

73 gal

1. Well No. MW-8
2. Date of Installation: _____
3. Date of Development: 2/17/03
4. Static Water Level: Before Dev. ~~41.70~~ 45.11 ft.; 24 Hours After _____ ft.
5. Quantity of Water Loss During Drilling, If Used _____ Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. _____ Gal.

	Start	During		End
7. Specific Conductance (umhos/cm)	.266	.251	.247	.248
Temperature (c°)	18.0	19.4	19.8	19.7
PH (s.u.)	9.02	7.34	7.55	7.55

8. Depth From Top of Well Casing to Bottom of Well 68.00 ft.
9. Screen Length _____ ft.
10. Depth to Top of Sediment: Before Dev. _____ ft.; After Dev. _____ ft.
11. Physical Character of Water: clear, odorless

_____

12. Type and Size of Well Development Equipment: _____

_____

13. Description of Surge Technique, If Used: _____

_____

14. Height of Well Casing Above Ground Surface: _____ ft.
15. Quantity of Water Removed: 75 Gal.

    Time for Removal: 2/30 Hr./Min.
16. 1-Pint Water Sample Collected: _____ (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW
RESOURCES CREATING SOLUTIONS

JOB NAME T K Louisville JOB NUMBER 12000-0-2050

BY RDS DATE 2/12/03 CHECKED _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

- WELL NO. MW-9
- DATE OF INSTALLATION: 2/10/03 DATE OF DEVELOPMENT: 2/12/03
- STATIC WATER LEVEL: Before Development 40.3 FT.; 24 Hours After Development _____ FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 100-200 est GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT none GAL.

Volume Removed (gal)	pH	Specific Cond. (µmhos)	Temp. (C°)	Elapsed Time (min)	Notes
1	9.80	210	21.5	~~[illegible]~~ 1	water turbid start at 15:20
10	9.17	185	20.5	15	Pumped dry after 10 gal
15	8.28	240	21.0	30	Reduced flow rate moderately turbid
20	8.05	230	20.0	45	Pumped dry after 20 gal mod. turbid
25	7.87	230	20.0	60	reduced flow rate moderately turbid
30	7.90	230	20.0	75	slightly turbid
35	7.97	230	20.0	90	clear
					Finish development 16:50

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL _____ FT.
- SCREEN LENGTH 10 ft. FT.
- DEPTH TO TOP OF SEDIMENT: Before Development _____ FT.; After Development _____ FT.
- PHYSICAL CHARACTER OF WATER: _____
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: Grundfos Redi-Flow 2
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: _____
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE _____ FT.
- TIME FOR REMOVAL: 1 hr. 30 min. Hr./ Min.
- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW
RESOURCES CREATING SOLUTIONS

JOB NAME T. K. Louisville JOB NUMBER 12000-0-2050

BY RAS DATE 2/13/02 CHECKED _____ DATE _____ SHEET 1 OF ___

WELL DEVELOPMENT DATA

- WELL NO. MW-10
- DATE OF INSTALLATION: 2/10/03 DATE OF DEVELOPMENT: 2/13/02
- STATIC WATER LEVEL: Before Development 27.8 FT.; 24 Hours After Development _____FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 100± gal _____GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT None GAL.

Volume Removed (gal)	pH	Specific Cond. (umhos)	Temp. (C°)	Elapsed Time (min)	Notes
1	8.94	230	20.0	1	Initial reading Start Develop. V. turbid 12:50
10	8.11	23.0	22.0	17	Purged well dry after 5 gal - rec. rate Same after 10 gal. V. turbid
15	7.75	260	22.0	30	turbid same after 15 gal mod flow rate
18	7.72	260	22.0	45	moderately turbid
20	7.71	265	22.0	65	moderately turbid
					Finish developing at
					13:55

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL _____FT.
- SCREEN LENGTH 10.0 FT.
- DEPTH TO TOP OF SEDIMENT: Before Development _____ FT.; After Development _____FT.
- PHYSICAL CHARACTER OF WATER: _____
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: Grundfos Redi-Flow 2
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: _____
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE _____FT.
- TIME FOR REMOVAL: _____Hr./ Min.
- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW
RESOURCES CREATING SOLUTIONS

JOB NAME T/C Louisville JOB NUMBER 12000-0-2050

BY RAL DATE 2/13/03 CHECKED _____ DATE _____ SHEET 1 OF ___

WELL DEVELOPMENT DATA

- WELL NO. MW-11
- DATE OF INSTALLATION: 2/11/03 DATE OF DEVELOPMENT: 2/13/03
- STATIC WATER LEVEL: Before Development 48.0 FT.; 24 Hours After Development _____FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 100±gal GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT None GAL.

Volume Removed (gal)	pH	Specific Cond. (umhos)	Temp. (C°)	Elapsed Time (min)	Notes
1	11.48	700	18.5	1	Initial Reading started at Turbid 07:45
10	10.30	210	18.5	15	~~Muddy~~ Turbid
20	9.15	210	18.5	27	Turbid Purged dry at 20 gal reduce flow
25	8.33	210	18.5	40	moderately turbid
30	7.72	220	18.5	50	slightly turbid
40	7.64	220	18.5	63	v sli. turbid
45	7.68	220	18.5	72	v. sli turbid
					Finish development 08:57

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL _____FT.
- SCREEN LENGTH 10.0 FT.
- DEPTH TO TOP OF SEDIMENT: Before Development _____ FT.; After Development _____FT.
- PHYSICAL CHARACTER OF WATER: _____
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: Grundfos Redi-Flow 2
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: _____
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE _____FT.
- TIME FOR REMOVAL: 1hr 12 min Hr./ Min.
- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW ENGINEERING TESTING COMPANY JOB NAME T.K. Louisville, Ga. JOB NO. 12000-0-2050

BY G. Orzechowski DATE 2/19/03 CK _____ DATE _____ SHEET ____ OF ____

WELL DEVELOPMENT DATA

1. Well No. MW-11
2. Date of Installation: _____
3. Date of Development: ~~4-9-03~~ 2-19-03
4. Static Water Level: Before Dev. ~~49.40~~ 54.20 ft.; 24 Hours After 53.75 ft.
5. Quantity of Water Loss During Drilling, If Used _____ Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. _____ Gal.

	Start	During		End
7. Specific Conductance (umhos/cm)	.215	.188	.204	.202
Temperature (c°)	18.9	20.5	20.6	20.5
PH (s.u.)	7.61	7.25	7.33	7.32

8. Depth From Top of Well Casing to Bottom of Well 79.0 ft.
9. Screen Length _____ ft.
10. Depth to Top of Sediment: Before Dev. _____ ft.; After Dev. _____ ft.
11. Physical Character of Water: clear, odorless
12. Type and Size of Well Development Equipment: _____
13. Description of Surge Technique, If Used: _____
14. Height of Well Casing Above Ground Surface: _____ ft.
15. Quantity of Water Removed: 80 Gal.

    Time for Removal: 2/30 Hr./Min.
16. 1-Pint Water Sample Collected: _____ (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW
RESOURCES CREATING SOLUTIONS

JOB NAME T. K Louisville JOB NUMBER 12000-0-2050

BY RAL DATE 2/13/03 CHECKED _____ DATE _____ SHEET 1 OF ___

WELL DEVELOPMENT DATA

- WELL NO. MW-12
- DATE OF INSTALLATION: 2/11/03 DATE OF DEVELOPMENT: 2/13/03
- STATIC WATER LEVEL: Before Development 40.6 FT.; 24 Hours After Development _____FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 100 ± _____GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT None GAL.

Volume Removed (gal)	pH	Specific Cond. (µmhos)	Temp. (C°)	Elapsed Time (min.)	Notes
					Initial
1	7.67	160	18.0	~~Initial~~ 1	Read 5 start development Very turbid 09:35
10	7.76 ~~7.96~~	210	18.5	15	moderately turbid
20	7.72	180	19.0	30	slightly turbid
30	7.68	170	19.0	45	v. sli. turbid
40	7.64	170	19.0	56	clear
45	7.67	165	19.0	65	clear
					Finish developing at 10:40

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL ~~70.8~~ _____FT.
- SCREEN LENGTH 10.0 FT.
- DEPTH TO TOP OF SEDIMENT: Before Development _____ FT.; After Development _____FT.
- PHYSICAL CHARACTER OF WATER: _____
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: Grundfos Redi-Flow 2
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: _____
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE _____FT.
- TIME FOR REMOVAL: 1 hr / 5 min Hr./ Min.
- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW RESOURCES CREATING SOLUTIONS

JOB NAME T.K. Louisville JOB NUMBER 12000.0-2050

BY RAS DATE 2/13/03 CHECKED _____ DATE _____ SHEET 1 OF ___

WELL DEVELOPMENT DATA

- WELL NO. mw-13
- DATE OF INSTALLATION: _____ DATE OF DEVELOPMENT: 2/13/03
- STATIC WATER LEVEL: Before Development 6.0 FT.; 24 Hours After Development _____FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 100gal ± _____GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT none GAL.

Volume Removed (gal)	pH	Specific Cond. (umhos)	Temp. (C°)	Elapsed Time (min)	Notes
1	7.33	215	16	1	Initial Reading started very turbid dev: 11:15
10	7.17	270	17.5	12	Turbid
20	7.13	290	17.0	20	moderately turbid
30	7.20	270	17.5	35	Slightly turbid.
40	7.28	270	17.5	42	Slightly turbid reduce flowrate
50	7.32	250	17.5	54	V. sli. turbid
55	7.35	245	17.5	62	Finished dev. 12:17

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL _____FT.
- SCREEN LENGTH 10.0 FT.
- DEPTH TO TOP OF SEDIMENT: Before Development _____ FT.; After Development _____FT.
- PHYSICAL CHARACTER OF WATER: _____
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: Grundfos Redi-Flow 2
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: _____
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE _____FT.
- TIME FOR REMOVAL: 1 hr. 2 min Hr./ Min.
- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

WELL DEVELOPMENT DATA

PROJECT NAME TK Louisville PROJECT NO. 12000-0-2050

DEVELOPED BY RA Seymour CHECKED BY _____ SHEET 1 OF _____

WELL NO. MW-14 SITE LOCATION TK Louisville

Initial flow rate 0.5 gpm

DATE/ TIME	MINUTE DEV./ CUM. MIN. DEV.	GALS. PURGED/ CUM. GALS. PURGED	pH	TEMP. °C	COND. mS/cm	NTUs	REMARKS
4/1/03 12:32	2/2	1	7.89	20.4	0.193	999	Initial Readings Static WL: 64.2' TOC
12:40	8/10	4/5	7.68	20.7	0.249	999	WL: 66.15 water v. murky DO. 1.95'
13:00	20/30	10/15	7.58	21.7	0.289	999 v. murky	WL: 66.14 DO 1.94'
13:20	20/50	10/25	7.54	21.5	0.312	999 v. murky	WL: 65.18' Inc rate DO: 1.02'
13:40	20/70	12/37	7.54	21.4	0.316	450 murky	WL: 65.35' DO. 1.15' Rate 0.6 gpm
13:50	10/80	7/42	7.48	21.4	0.324	491 sli murky	WL: 65.30' DO: 1.1' Inc. rate
14:00	10/90	8/50	7.47	21.3	0.323	115 sli murky	WL: 65.31' DO 1.11' Rate 0.7 gpm
14:20	20/110	15/65	7.50	21.3	0.328	10 clear	—
14:40	20/130	15/80	7.51	21.6	0.329	10 clear	WL: 65.18' DO. 0.98' Inc rate Rate 0.8 gpm
15:00	20/150	17/97	7.50	21.7	0.333	10 clear	WL: 65.25' DO: 1.05'
15:15	15/165	13/110 Two drums full	7.48	21.3	0.337	10 clear	WL: 65.25' DO: 1.05'
16:00	45/210	35/145 Three	7.47	21.4	0.337	10 clear	WL: 65.26' DO 1.06'
16:25	25/235	20/165 Three full drums	7.44	21.2	0.338	10 clear	WL: 65.25' DO 1.05'
17:00	35/270	35/200	7.38	21.0	0.340	10 clear	WL: 65.23' DO: 1.03'
17:25	25/295	20/220 Four full drums	7.36	20.9	0.341	10 clear	WL: 65.24' DO 1.04'

WELL DEVELOPMENT DATA

PROJECT NAME TK Louisville PROJECT NO. 12000-0-2050

DEVELOPED BY R.A. Seymour CHECKED BY _____ SHEET 1 OF 1

WELL NO. MW-155 SITE LOCATION _____

DATE/ TIME	MINUTE DEV./ CUM. MIN. DEV.	GALS. PURGED/ CUM. GALS. PURGED	pH	TEMP. °C	COND. mS/cm	NTUs	REMARKS
4/1/03 10:45	0.0	0.0	6.96	15.0	0.500	999	Initial Readings
11:00	15/15	5/5	6.74	14.6	0.444	999	
11:10	10/25	5/10	6.67	14.3	0.425	999	
11:20	10/35	5/15	6.62	14.3	0.393	999	
11:30	10/45	5/20	6.61	14.3	0.386	999	
11:40	10/55	5/25	6.63	14.4	0.388	999	
	Note: After bailing 25 gal water is turbid but no longer muddy.						

HF – Rev. 7/95

LAW ENGINEERING TESTING COMPANY JOB NAME TK-Louisville JOB NO. 12000-0-2056

BY MAV, EMS DATE _____ CK _____ DATE 4/3/03 SHEET ____ OF ____

WELL DEVELOPMENT DATA

1. Well No. MW-16
2. Date of Installation: 3/27/03
3. Date of Development: 4/3/03
4. Static Water Level: Before Dev. 3.70 ft.; 24 Hours After 3.68 ft.
5. Quantity of Water Loss During Drilling, If Used _____ Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. _____ Gal.

	Start	During		End
7. Specific Conductance (umhos/cm)	.148	0.063	0.064	0.064
Temperature (c°)	14.0	15.3	15.4	15.0
PH (s.u.)	4.90	6.02	5.01	5.49

8. Depth From Top of Well Casing to Bottom of Well 15.0 ft.
9. Screen Length 5 ft.
10. Depth to Top of Sediment: Before Dev. _____ ft.; After Dev. _____ ft.
11. Physical Character of Water: Clear
12. Type and Size of Well Development Equipment: Type II Well Submersible pump
13. Description of Surge Technique, If Used: Surge every 10 minutes with submersible pump
14. Height of Well Casing Above Ground Surface: _____ ft.
15. Quantity of Water Removed: 160 Gal.

    Time for Removal: _____ Hr./Min.
16. 1-Pint Water Sample Collected: _____ (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW ENGINEERING TESTING COMPANY JOB NAME TK Louisville JOB NO. 12000-0-2050

BY SPD/DK DATE _____ CK _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

1. Well No. MW-17
2. Date of Installation: 5-8-03
3. Date of Development: 5-13-03
4. Static Water Level: Before Dev. 11.41 ft.; 24 Hours After 11.76 ft.
5. Quantity of Water Loss During Drilling, If Used unknown Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. 35 Gal.
   0.9 gal/ft × 38.9

	Start	44 gal	During	128 gal	140 gal	End	155 gal
7. Specific Conductance (umhos/cm)	4.17	4.44	4.71,	5.2	4.9	4.75	
Temperature (C°) °F	69.4	68.2	73.0,	77.9	72.1	73.1	
PH (s.u.)	6.83	7.04	7.2,	7.25	7.47	7.45	
Turb (NTU)	500	85	30.1	3.8	2.1	2.2	

8. Depth From Top of Well Casing to Bottom of Well 50.3 ft.
9. Screen Length 15 ft.
10. Depth to Top of Sediment: Before Dev. 50.3 ft.; After Dev. 50.3 ft.
11. Physical Character of Water: Turbid and Heavy Solids
12. Type and Size of Well Development Equipment: Submersible pump + poly tubing, moved pump up + down in well
13. Description of Surge Technique, If Used: moved pump up + down to create surge action
14. Height of Well Casing Above Ground Surface: 2.5 ft.
15. Quantity of Water Removed: 155 Gal.
    Time for Removal: 5 Hr./Min.
16. 1-Pint Water Sample Collected: NA (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW ENGINEERING TESTING COMPANY JOB NAME TK Louisville JOB NO. 12000-2050

BY SDD/DK DATE 5-13-03 CK _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

1. Well No. MW-18
2. Date of Installation: 5-9-03
3. Date of Development: 5-13-03
4. Static Water Level: Before Dev. 4.55 ft.; 24 Hours After 5.54 ft.
5. Quantity of Water Loss During Drilling, If Used unknown Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. 36 Gal.
   0.9 x 40

	Start	55 gal	During	138 gal	End	165 gal
7. Specific Conductance (umhos/cm)	438	415	404,	398	398	
Temperature (~~C~~) °F	73.8	67.6	65.6,	65.1	64.4	
PH (s.u.)	7.55	7.51	7.53,	7.54	7.50	
Turbidity (NTU)	150	48.2	2.26	1.72	0.98	

8. Depth From Top of Well Casing to Bottom of Well 44.5 ft.
9. Screen Length 15 ft.
10. Depth to Top of Sediment: Before Dev. 44.5 ft.; After Dev. 45.3 ft.
11. Physical Character of Water: turbid clears after 30 gals
12. Type and Size of Well Development Equipment: submersible pump & poly tubing
13. Description of Surge Technique, If Used: moved pump up & down to create surge action
14. Height of Well Casing Above Ground Surface: 2.64 ft.
15. Quantity of Water Removed: 165 Gal.
    Time for Removal: 5 Hr./Min.
16. 1-Pint Water Sample Collected: NA (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW ENGINEERING TESTING COMPANY JOB NAME TK Louisville JOB NO. 12000-0-2050

BY SDD/CMC DATE 5-27-03 CK _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

1. Well No. MW-19
2. Date of Installation: 5-20-03
3. Date of Development: 5-27-03
4. Static Water Level: Before Dev. 31.80 ft.; 24 Hours After 32.54 ft.
5. Quantity of Water Loss During Drilling, If Used unknown Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. 15.6 Gal.
   0.9 x 17.3

	Start	~~18 gal~~	During 38 gal	55 gal	63 gal	End 70 gal
7. Specific Conductance (umhos/cm)	0.45	0.29	0.31	0.39	0.37	0.33
Temperature (c°)	25.1	24.1	23.1	23.9	21.7	21.7
PH (s.u.)	14	12.5	11.33	11.58	10.93	10.7
Turbidity (NTU	462	2.5	25.9	0.39	2.4	0.4

8. Depth From Top of Well Casing to Bottom of Well 49.1 ft.
9. Screen Length _____ ft.
10. Depth to Top of Sediment: Before Dev. 49.1 ft.; After Dev. 49.25 ft.
11. Physical Character of Water: Turbid Clears after 50 gals
12. Type and Size of Well Development Equipment: Submersible pump and poly tubing
13. Description of Surge Technique, If Used: Moved pump up down to create surge action
14. Height of Well Casing Above Ground Surface: 2.45 ft.
15. Quantity of Water Removed: 70 Gal.

    Time for Removal: 5.3 Hr./Min.
16. 1-Pint Water Sample Collected: NA (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW ENGINEERING TESTING COMPANY JOB NAME TK Louisville JOB NO. 12000-0-2050

BY SDD / CMC DATE 5-27-03 CK _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

1. Well No. MW-20
2. Date of Installation: 5-21-03
3. Date of Development: 5-27-03 / 5-28-03
4. Static Water Level: Before Dev. 77.60 ft.; 24 Hours After 79.38 ft.
5. Quantity of Water Loss During Drilling, If Used Unknown Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. 26.2 Gal.
   0.9 x 29 = 26.2

	Start	65 gal During	82 gal	End 97 gal
7. Specific Conductance (umhos/cm)	0.5	0.59,	1.01	0.7
Temperature (c°)	27.8	25.8,	26.5	25.2
PH (s.u.)	13.54	6.96,	7.50	7.41
Turbidity	—	169	522	29.1

8. Depth From Top of Well Casing to Bottom of Well 106.7 ft.
9. Screen Length 15 ft.
10. Depth to Top of Sediment: Before Dev. 100.22 ft.; After Dev. 106.7 ft.
11. Physical Character of Water: turbid and clears
12. Type and Size of Well Development Equipment: Submersible pump & poly tubing
13. Description of Surge Technique, If Used: moved pump up + down and bailed
14. Height of Well Casing Above Ground Surface: -0.21 ft.
15. Quantity of Water Removed: 97 Gal.
    Time for Removal: 4.5 Hr./Min.
16. 1-Pint Water Sample Collected: NA (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

MACTEC

ENGINEERING TESTING COMPANY JOB NAME TK Louisville JOB NO. 12000-0-2050.1

BY S. Durden DATE 9/8/03 CK _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

1. Well No. MW-21
2. Date of Installation: 8/27/03
3. Date of Development: 9/8/03
4. Static Water Level: Before Dev. 74.98 ft.; 24 Hours After _____ ft.
5. ~~Quantity of Water Loss During Drilling, If Used~~ 30.32(ft) × 0.9/ft = 27.20 Gal. 30.32 × 0.163 = 4.92
6. Quantity of Standing Water in Well and Annulus Before Dev. 27.20 (borehole volume) | 4.92 (Purge volume) Gal.

	Start	During	End
7. Specific Conductance (umhos/cm)	0.390	see, logbook	0.346
Temperature (c°)	22.7	" , "	22.6
PH (s.u.)	6.56	" , "	7.17

8. Depth From Top of Well Casing to Bottom of Well 104.96 ft.
9. Screen Length 15.0 ft.
10. Depth to Top of Sediment: Before Dev. ~~104.70~~ ft.; After Dev. ~~104.96~~ ft.
11. Physical Character of Water: milky & cloudy prior to development. Clearer after development
12. Type and Size of Well Development Equipment: Grundfos Pump, teflon tubing
13. Description of Surge Technique, If Used: Purge & surge using submersible pump. Pump raised & lowered gently throughout screened section to remove water & sediment
14. Height of Well Casing Above Ground Surface: _____ ft.
15. Quantity of Water Removed: ~145 Gal.
    Time for Removal: 3.5 hrs Hr./Min. 3hrs 30 min
16. 1-Pint Water Sample Collected: _____ (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

Well Development measurements

Field Sampling Report

Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

MACTEC

Date: 9/8/03
Job No.: 12000-0-2050.18
Job Name: TK Louisville
Location: Louisville
Well ID: MW-21

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
~~MW-21~~													
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: SD

Field Measurements
GW Depth:
Total Depth:
Equipment ID:
Purge Vol:

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level	
1445	22.7	10	~~.4~~ .390	6.56	~10	milky color	surge
1500	22.7	40	.332	7.16	~15	" "	surge
1515	23.3	7.5	.328	7.24	~25	clear	
1530	22.9	4.3	.329	7.24	~30	clear	surge
1545	23.0	3.1	.332	7.22	~38	clear	
1600	22.9	2.5	.332	7.22	~47	clear	surge
1615	22.6	3.1	.333	7.23	~58	clear	
1630	22.5	5.9	.337	7.23	~~570~~	clear	surge
1645	22.8	2.0	.338	7.20	~82	clear	~~85~~
1700	22.8	1.8	.342	7.20	~93	clear surge to bottom	~~95~~ 100
1715	22.7	11	.341	7.18	~105	slightly cloudy w/ some sand	~~105~~ 110
1730	22.9	2.3	.343	7.28	~115		~~115~~ 120
1745	22.9	1.8	.342	7.18	~124	clear	125
1800	22.7	1.3	.345	7.17	~133	clear	130
1815	22.6	1.3	.346	7.17	~145	clear	140

Laboratory:
Date of Shipment: 9/10/03 CC
Via:
Weather:

WELL DEVELOPMENT DATA

NAC TEC

ENGINEERING TESTING COMPANY JOB NAME TK Louisville JOB NO. 12000-0-2050.11

BY S. Durden DATE 9/9/03 CK _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

1. Well No. MW-22
2. Date of Installation: 9/6/03
3. Date of Development: 9/9/03
4. Static Water Level: Before Dev. 88.40 ft.; 24 Hours After _____ ft.
5. Quantity of Water Loss During Drilling, If Used _____ Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. 114.4 (ft) - 88.4 = 26 x 0.163 gal/ft = 4.23 borehole volume 26 x 0.9 = 23.4 Gal.

	Start	During	End
7. Specific Conductance (umhos/cm)	0.347	see, logbook	0.341
Temperature (c°)	23.2	" , "	21.9
PH (s.u.)	7.29	" , "	7.18

8. Depth From Top of Well Casing to Bottom of Well 114.3 ft.
9. Screen Length 15 ft.
10. Depth to Top of Sediment: Before Dev. 114.4 ft.; After Dev. 114.3 ft.
11. Physical Character of Water: Milky & slighty cloudy. After development, water became clear.
12. Type and Size of Well Development Equipment: Grundfos Pump, teflon tubing
13. Description of Surge Technique, If Used: Pump & surge technique using submersible pump. Pump raised & lowered gently through the screen section to remove water & sediment
14. Height of Well Casing Above Ground Surface: _____ ft.
15. Quantity of Water Removed: 117 Gal.

    Time for Removal: 2 hr 50 minutes Hr./Min.
16. 1-Pint Water Sample Collected: _____ (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

LAW ENGINEERING TESTING COMPANY JOB NAME TK-Louisville JOB NO. 12000-0-2050.11

BY C. Clark DATE 9/10/03 CK _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

1. Well No. MW-23
2. Date of Installation: 8/28/03
3. Date of Development: 9/10/03
4. Static Water Level: Before Dev. 78.75 ft.; 24 Hours After 78.80 ft.
5. Quantity of Water Loss During Drilling, If Used _____ Gal.
6. Quantity of Standing Water in Well and Annulus Before Dev. $26.75\,(ft) \times \frac{0.9\,gal}{ft} = 24.07$ Gal.

$26.75\,(ft) \times 0.163\,\frac{gal}{ft} = 4.36$ gal (purge vol

	Start	During	End
7. Specific Conductance (umhos/cm)	0.316	see, logbook	0.379
Temperature (c°)	22.7	" , "	20.8
PH (s.u.)	9.15	" , "	6.95

8. Depth From Top of Well Casing to Bottom of Well 105.2 ft.
9. Screen Length 15 ft.
10. Depth to Top of Sediment: Before Dev. _____ ft.; After Dev. _____ ft.
11. Physical Character of Water: CLEAR, NON-ODOROUS
12. Type and Size of Well Development Equipment: Grundfos Pump, teflon tubing
13. Description of Surge Technique, If Used: Pump & surge using submersible pump. Pump was raised & lowered gently through the screen section to remove water & sediment
14. Height of Well Casing Above Ground Surface: _____ ft.
15. Quantity of Water Removed: 220 Gal.

    Time for Removal: 1hr 40 min Hr./Min.
16. 1-Pint Water Sample Collected: _____ (Time)

*Development Conditions:
1) Well Water is Reasonably Clear
2) Sediment Thickness < 5% of Screen Length
3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

MACTEC JOB NAME TK Louisville JOB NUMBER 12000-0-2050.

BY LNQ DATE 10-11-04 CHECKED _____ DATE _____ SHEET 1 OF 1

WELL DEVELOPMENT DATA

- WELL NO. MW-24 no grout seal installed
- DATE OF INSTALLATION: Complete as temporary 10-11-04 well on DATE OF DEVELOPMENT: 10-11-04
- STATIC WATER LEVEL: Before Development 90.23 FT.; 24 Hours After Development 86.8 FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: nominal GAL. (5.4 ft stickup = 84.8 ft; 1.8 ft stickup = 85 ft)
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT 31 GAL.

Volume Removed (gals)	pH	Specific Cond. ( )	Temp. (°)	Turbidity NTUs	Notes
					Water Levels
10	no equipment				Water level drops 90.23 to 126.90
23	available to check				126.95
28	parameters				125.92
365					124.90
95					124.26
120					127.40

Developed at rate: 1 gpm

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL 147.4 FT.
- SCREEN LENGTH 9.77 FT.
- DEPTH TO TOP OF SEDIMENT: Before Development 147.4 FT.; After Development 147.3 FT.
- PHYSICAL CHARACTER OF WATER: initially white slightly cloudy + clears
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: Grundfos Redi-flow 2 + poly tubing
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: moved pump up + down screen
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE temporary 1.8 FT.

TIME FOR REMOVAL: ~ 2 hours Hr./ Min.

- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

ATTACHMENT 2

FIELD SAMPLING FORMS

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location DSCR - Thermo King- Louisville
Site Name

Identify Measuring Point (MP): TOC
(eg. Top of Casing)

Well ID: MW-1

Field Sampling Personnel: Chris Krambis

Depth to Screen below MP: 69.24 of screen (Top) 74.24 of screen (Bottom)

Pump Intake at (ft. below MP): NA

Purging Device (Pump Type): Bailer (disposable Teflon)

TD = 76.65' BTOC
DTW = 49.00' BTOC
27.65' x 0.163 x 3 = 13.5 gallons

Date	Time (24 hr)	Depth to Water Below MP (ft)	Pump Dial Setting (1)	Purge Rate (gal/min)	Cum. Volume Purged (liters)	Temp. (deg. C)	Spec Cond. (mS/cm)	pH (pH Units)	DO (mg/L)	Turbidity (NTU)	Total Iron (mg/L)	Redox Potential (mV)	Comments
10/02/0[illegible]	1800	49.00	NA	0.28	0	21.5	.283	7.19	9.07	32			Clear no odor
↓	1356	–	NA	0.11	11	19.1	.231	7.08	9.81	10			clear no odor
	1903	–	NA	0.11	12	18.5	.228	6.77	9.74	10			Clear no odor
	1907	–	NA	0.11	13	18.4	.231	6.72	9.62	10			Clear no odor

Matrix Spike and Matrix Spike Duplicate taken from MW-1

(1) Pump Dial Setting (eg. Hertz, cycles/min, etc.)

USE FIELD SAMPLING REPORT FORM TO DOCUMENT SAMPLE COLLECTION

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Page 1 of 1

Location DSCR - Thermo King-Louisville (Site Name)
Identify Measuring Point (MP): TOC (eg. Top of Casing)

Well ID: MW-2
Field Sampling Personnel: Chris Krambis
Depth to Screen below MP: 52.85 (Top) of screen 57.85 (Bottom) of screen
Pump Intake at (ft. below MP): NA
Purging Device (Pump Type): Bailer (disposable Teflon)

TD = 58.70
DTW = 39.72
18.98 x 0.163 x 3 = 9.3 gallons

Date	Time (24 hr)	Depth to Water Below MP (ft)	Pump Dial Setting (1)	Purge Rate (mL/min)	Cum. Volume Purged (liters)	Temp. (deg. C)	Spec Cond. (mS/cm ~~umhos/cm~~)	pH (pH Units)	DO (mg/L)	Turbidity (NTU)	Total Iron (mg/L)	Redox Potential (mV)	Comments
10/03/06	1309	39.72	NA		0@132l	22.6	.237	7.34	9.46	0	—	—	Clear and odorless
	1315		NA		9.0	22.6	.225	7.21	9.81	189	—	—	Same. Turb & DO measurements are questionable
	1325		NA		9.5	22.2	.222	7.16	9.46	3	—	—	
	1431		NA		10	22.3	.219	7.12	9.64	100	—	—	Clear & odorless
													Parameters measured immediately after purge water was sampled.

(1) Pump Dial Setting (eg. Hertz, cycles/min, etc.)
USE FIELD SAMPLING REPORT FORM TO DOCUMENT SAMPLE COLLECTION

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location DSCR - Thermo King Louisville (Site Name)
Identify Measuring Point (MP): TOC (eg. Top of Casing)

Well ID: MW-3
Field Sampling Personnel: Chris Krambois

Depth to Screen below MP: 54.9 (Top) of screen 59.9 (Bottom) of screen

Pump Intake at (ft. below MP): NA

Purging Device (Pump Type): Bailer (disposable Teflon)

TD = 61.00'
DTW = 42.80'
18.20' x 0.163 x 3 = 8.9 gallons.

Date	Time (24 hr)	Depth to Water Below MP (ft)	Pump Dial Setting (1)	Purge Rate (mL/min)	Cum. Volume Purged (liters)	Temp. (deg. C)	Spec Cond. (mS/cm ~~umhos/cm~~)	pH (pH Units)	DO (mg/L)	Turbidity (NTU)	Total Iron (mg/L)	Redox Potential (mV)	Comments
10/03	1518	42.80											
	1602				0	27.3	.117	5.84*	8.52	81			Clear, odorless Parameters measured well after sample collected
													*pH dropping slowly @ time of reading
	1657				9	27.1	.169	6.28	8.11	10			Clear and odorless
	1700				9.5	25.9	.157	6.22	7.98	2			Same
	1702				10	25.9	.155	6.15	8.21	6			Same
				This well was duplicated in MW-100									
			Duplicate Sample called										

(1) Pump Dial Setting (eg. Hertz, cycles/min, etc.)

USE FIELD SAMPLING REPORT FORM TO DOCUMENT SAMPLE COLLECTION

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location DSCR: Thermo King - Louisville (Site Name)
Identify Measuring Point (MP): TOC (eg. Top of Casing)

TD = 59.25
DTW = 41.28
17.97 x 0.163 x 3 = 8.8 gallons.

Well ID: MW-4
Field Sampling Personnel: Chris Krambis
Depth to Screen below MP: 52.91 of screen (Top) 57.91 of screen (Bottom)
Pump Intake at (ft. below MP): NA
Purging Device (Pump Type): Bailer (disposable Teflon)

Date	Time (24 hr)	Depth to Water Below MP (ft)	Pump Dial Setting (1)	Purge Rate (mL/min)	Cum. Volume Purged (liters)	Temp. (deg. C)	Spec Cond. (umhos/cm)	pH (pH Units)	DO (mg/L)	Turbidity (NTU)	Total Iron (mg/L)	Redox Potential (mV)	Comments
10/12/10	~~1010~~ 1086	41.28	NA		0	22.7	.299	7.37	9.27	105			Clear, odorless, Turb. reading and D.O are suspect.
					~~9~~								
	1135				~~9.59~~	26.7	.312	7.23	7.80	349			Clear, odorless
	1138				~~10~~ 9.5	25.7	.311	7.28	8.13	1			Same
	1139				10	25.9	.306	7.31	8.08	102			Same
													Parameters measured after all purge water samples were collected

(1) Pump Dial Setting (eg. Hertz, cycles/min, etc.)

USE FIELD SAMPLING REPORT FORM TO DOCUMENT SAMPLE COLLECTION

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location DSCR - Thermo King - Louisville
Site Name

Identify Measuring Point (MP): TOC
(eg. Top of Casing)

Well ID: MW-5

Field Sampling Personnel: Chris Krambis

Depth to Screen below MP: 48.81 of screen (Top) 53.81 of screen (Bottom)

Pump Intake at (ft. below MP): NA

Purging Device (Pump Type): Bailer (disposable Teflon)

TD 54.92
DTW 40.96
13.96 + 0.163 x 3 = 6.8 gallons.

Date	Time (24 hr)	Depth to Water Below MP (ft)	Pump Dial Setting (1)	Purge Rate (mL/min)	Cum. Volume Purged (liters)	Temp. (deg. C)	Spec Cond. (mS/cm, ~~µmhos/cm~~)	pH (pH Units)	DO (mg/L)	Turbidity (NTU)	Total Iron (mg/L)	Redox Potential (mV)	Comments
10/03	1749	40.96	NA		—	—	—	—	—	—	—	—	
	1850		↓		6.5	23.9	.235	6.63	9.12	8	—	—	Clear & odorless
	1851				7.0	23.5	.227	6.63	9.23	4	—	—	same
	1853				7.5	23.7	.227	6.68	9.16	13	—	—	same
													Parameters measured well after samples were collected.

Equipment Blank labelled "EQ3" taken prior to sampling MW-5 using bailer dedicated for MW-5.

(1) Pump Dial Setting (eg. Hertz, cycles/min, etc.)

USE FIELD SAMPLING REPORT FORM TO DOCUMENT SAMPLE COLLECTION

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location DSCR - Thermo King - Louisville (Site Name)
Identify Measuring Point (MP): TOC (eg. Top of Casing)

TD = 49.00'
DTW = 32.46
16.54' x 0.163 = 2.7 gallons x 3 = 8.1 gals. to purge

Well ID: MW-6
Field Sampling Personnel: Chris Krambis
Depth to Screen below MP: 42.84 of screen (Top) 47.84 of screen (Bottom)
Pump Intake at (ft. below MP): NA
Purging Device (Pump Type): Bailer (disposable Teflon)

Date	Time (24 hr)	Depth to Water Below MP (ft)	Pump Dial Setting (1)	Purge Rate (mL/min)	Cum. Volume Purged (liters)	Temp. (deg. C)	Spec Cond. mS/cm ~~umhos/cm~~	pH (pH Units)	DO (mg/L)	Turbidity (NTU)	Total Iron (mg/L)	Redox Potential (mV)	Comments
10/03/00	0755	32.46	NA		0	18.1	.298	6.68	7.70	176			Clear and odorless
	0855	-	NA		6	19.0	.266	6.66	7.93	166			Mostly clear w/slight grey cloudiness
					7	19.5	.320	6.84	7.77	133			same
					8	20.1	.345	6.97	7.56	134			same
	0907				9	20.9	.183	6.54	7.45	9			
	0924				10	21.4	.189	6.55	7.73	11			D.O. and Turbidity readings
	0934				11	21.4	.214	~~6.89~~	7.95	13			seem highly questionable.
								6.70					Readings from Horiba U-10
													Temperature readings may be
													misleading as samples were
													collected at different times than
													measured all at once. As a result
													took another gallon for measurement
													Turbidity reading seems right
													on 9th gallon. As time passed
													Temp. dropped to equilibrate
													w/ outside conditions. ~~and~~
													Other parameters were more stable
													with time. SC dropped. Took
													10th gallon to check. Then
													took 11th gallon to verify stability

(1) Dial Setting (eg. Hertz, cycles/min, etc.)

USE SAMPLING REPORT FORM TO DOCUMENT SAMPLE COLLECTION

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 2-19-03
Job No.: 12000-0-2050
Job Name: TK Louisville
Location:
Well ID: MW-1

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-1	12:25	C	GW	3	—	—	X						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials:

Field Measurements
Equipment ID:
GW Depth: 49.40
Total Depth: 75.08
Purge Vol: 13 gallons

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
09:10	16.8	12	.157	5.47	1	
~~09:25~~	—	—	—	—	—	—
09:44	18.6	error	.138	5.69	3	
10:12	20.0	error	.127	5.94	5	
11:22	19.3	error	.128	6.03	10	
11:34	20.0	error	.127	6.11	11	
11:48	20.2	error	.127	6.22	12	
12:02	20.1	error	.127	6.28	13	

Laboratory:
Date of Shipment:
Via: Fed Ex
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date 2-19-03
Job No. 12000-0-2050
Job Name TK-Louisville
Location
Well ID MW-2

Sampling Information Sample ID MW-2	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
	1145	GW	C	3			✓						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials EMS

Field Measurements
Equipment ID:
GW Depth: 41.0 ft **Total Depth:** 58.0 ft **Purge Vol:** 9

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
0835	19.4	997	.267	5.65	0	
0850	16.6	910	.232	6.14	1	
0905	19.3	279	.227	7.09	2	
0930	20.5	108	.225	7.21	3	
0950	20.1	66	.219	7.19	4	
1005	21.5	31	.215	7.15	5	
1020	21.1	2	.209	7.17	6	
1040	20.9	4	.208	7.19	7	
1100	20.4	1	.207	7.20	8	
1130	21.1	1	.210	7.20	9	

Laboratory: STL
Date of Shipment: 2-19-03
Via: FedEx
Weather:

Field Sampling Report	LAW Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date 2-18-03 Job No. Job Name Location Well ID

Sampling Information Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-3	1730	C	GW	3			✓						8260B
MW-300-DUP	1200	C	GW	3			✓						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials

Field Measurements
Equipment ID:
GW Depth:
Total Depth:
Purge Vol:

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
1530	22.0	150	.096	5.37	1	
1546	23.3	100	.099	5.16	2	
1601	23.8	29	.103	5.20	3	
1619	24.5	11	.103	5.37	4	
1633	24.9	5	.101	5.31	5	
1648	24.0	3	.101	5.25	6	
1703	24.5	2	.102	5.37	7	
1719	24.6	4	.103	5.42	8	

Laboratory: STL
Date of Shipment: 2-19-03
Via: FedEx
Weather: Sunny

Field Sampling Report	LAW Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date: 2-18-03 Job No.: 12000-0-2050 Job Name: FK. Louisville Location: MW-3 Well ID: MW-3

Sampling Information Collect Dup. MW-300 Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-3	17:30	C	GW	3	—	—	X						8260B
MW-300	12:00	C	GW	3	—	—	X						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: GAO

Field Measurements
Equipment ID:
GW Depth: 43.81
Total Depth: 60.10
Purge Vol: 8 gallons

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
15:30	22.0	150	.096	5.37	1	
15:46	23.3	100	.099	5.16	2	
16:01	23.8	29	.103	5.20	3	
16:19	24.5	11	.103	5.37	4	
16:33	24.9	5	.101	5.31	5	
16:48	24.0	3	.101	5.25	6	
17:03	24.5	2	.102	5.37	7	
17:19	24.6	4	.103	5.42	8	
~~19:00~~						

Laboratory:
Date of Shipment:
Via: Fed Ex
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 2-18-03
Job No.: 12000-0-2050
Job Name: TK-Louisville
Location:
Well ID: MW-4

Sampling Information	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
Sample ID MW-4													
	1750	GW		3			✓						
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: EMS

Field Measurements
GW Depth: 41.54 ft
Total Depth: 58.4 ft
Equipment ID:
Purge Vol:

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
1445	21.0	518	.219	6.80	0	
1505	24.2	321	.279	6.89	1	
1525	25.0	234	.292	6.87	2	
1545	23.5	264	.278	7.23	3	
1605	24.5	162	.284	7.08	4	
1625	24.3	110	.259	7.00	5	
1645	24.8	80	.263	7.02	6	
1705	25.0	10	.260	7.06	7	
1725	25.2	3	.262	7.03	8	
1750 EMS						

Laboratory: STL
Date of Shipment: 2-18-03
Via: FedEx
Weather: Sunny

Field Sampling Report	LAW Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date 2-18-03 Job No. 12000-0-2050 Job Name TX-Louisville Location Well ID MW-5

Sampling Information Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-5	1205	C	GW	3			✓						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials GO

Field Measurements
Equipment ID:
GW Depth:
Total Depth:
Purge Vol:

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
0943	16.3	224	.337	5.66	<.2	
1000	20.8	7	.170	6.09	1.0	
1020	21.9	2	.166	5.94	2.0	
1043	21.8	1	.165	6.01	3.0	
1108	21.3	1	.160	6.46	4.0	
1133	22.0	0	.162	6.35	5.0	
1154	22.2	0	.161	6.33	6.0	

Laboratory: STL
Date of Shipment: 2-19-03
Via: FedEx
Weather: Sunny

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date	6-12-03
Job No.	12000-0-2050
Job Name	TK Louisville
Location	Louisville, GA
Well ID	MW-5

Sampling Information

Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-5	20:00	GW	MW	3			3						VOC 8260
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials KAS

Field Measurements
Equipment ID:
GW Depth: 39.70 **Total Depth:** 53.25 **Purge Vol:** 7 gal

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
19:00	23.6	158	0.105	6.56	1	
19:15	23.6	174	0.150	6.77	3	
19:30	23.2	312	0.152	6.71	5	
19:40	23.1	338	0.156	7.12	7	
19:55	23.1	329	0.161	7.10	9	

Laboratory: STL NC **Date of Shipment:** 6-13-03 **Via:** Fed Ex

Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date	4-8-03
Job No.	12000-0-2050
Job Name	TK Louisville
Location	Louisville, GA
Well ID	MW-5

Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)	250 ml					Analysis
MW-5	17:06	GW	MW	2	1			1					Ca Mg Na K Cl Sulfate, Alkalinity
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials NAS/NTG

Field Measurements
GW Depth: 39.90 **Total Depth:** 53.25 **Equipment ID:** **Purge Vol:** 7,a l

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
		~~+3~~	~~0.184~~	~~6.66~~	~~2~~	
16:46	23.7	~~5~~ 113	0.184	6.66	42	
16:56	23.5	58	0.173	~~6.44~~ 6.44	64	
16:54	23.5	32	~~0.176~~ 0.172	6.35	86	
16:58	23.5	25	0.167	6.26	8	

Laboratory: **Date of Shipment:** **Via:**

Weather:

Field Sampling Report	LAW Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date 2-19-03 Job No. 12000-0-2050 Job Name TK-Louisville Location Well ID MW-6

Sampling Information Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-6	1105	GW		3			✓						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials EMS

Field Measurements
Equipment ID:
GW Depth: 32.7 ft
Total Depth: 48.25 ft
Purge Vol:

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
0930	15.6	734	.354	5.20	0	
0940	21.0	445	.292	6.90	1	
0950	20.9	478	.262	7.16	2	
1000	21.7	114	.252	6.70	3	
1010	23.2	20	.237	6.93	4	
1020	24.0	9	.232	6.81	5	
1030	24.2	2	.234	6.82	6	
1040	24.5	0	.233	6.80	7	
1050	24.9	2	.253	6.79	8	

Laboratory: STL
Date of Shipment: 2-19-03
Via: FedEx
Weather: Sunny

Field Sampling Report	LAW Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date 2-25-03 Job No. 12000-0-2050 Job Name TK-Louisville Location Well ID MW-7

Sampling Information Sample ID MW-7	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
	1810	C	GW	3			✓						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials EMS

Field Measurements
GW Depth: 37.07
Total Depth:
Equipment ID:
Purge Vol: 11

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
1500	21.4	114	.302	7.68	0	
1515	22.9	56	.332	6.67	1	
1530	23.0	30	.339	6.71	2	
1545	23.1	11	.347	6.62	3	
1600	23.0	6	.360	6.75	4	
1615	22.4	3	.359	6.77	5	
1630	23.0	0	.353	6.54	6	
1645	22.5	0	.354	6.62	7	
1700	23.2	6	.353	6.65	8	
1715	23.1	3	.355	6.61	9	
1730	23.0	3	.353	6.63	10	
1750	23.1	2	.353	6.65	11	

Laboratory: STL
Date of Shipment: 2-26-03
Via: FedEx
Weather: Sunny

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 2/24/93
Job No.: 12000-0-2050
Job Name: T.K. Louisville
Location:
Well ID: MW-8

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-8	17:15	C	GW	3	—	—	X						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: GAO

Field Measurements
Equipment ID:
GW Depth: 45.08
Total Depth: 68.00
Purge Vol: 12 gallons

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
12:55	19.8	129	.306	6.40	<1.0	
13:20	21.9	99	.243	7.53	1.0	
13:40	24.1	127	.243	7.42	2.0	
14:23	24.0	124	.245	7.48	4.0	
15:01	24.4	132	.247	7.49	6.0	
15:40	24.5	56	.247	7.11	8.0	
16:00	24.0	28	.249	7.28	9.0	
16:20	23.7	9	.249	7.17	10.0	
16:40	23.5	7	.250	7.23	11.0	
17:00	23.4	4	.249	7.25	12.0	

Laboratory:
Date of Shipment:
Via: Fed Ex
Weather:

Field Sampling Report	LAW Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date 2-24-03 Job No. 12000-0-2050 Job Name TK-Louisville Location Well ID MW-9

Sampling Information Sample ID MW-9	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
	1640	C	GW	3			J						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: SMS

Field Measurements
GW Depth: 41.63 ft
Total Depth:
Equipment ID:
Purge Vol: 12

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
1240	22.0	531	.274	7.30	0	
1312	21.9	350	.371	7.41	1	
1328	21.3	196	.270	7.42	2	
1354	22.0	165	.271	7.37	3	
1420	23.0	150	.268	7.21	4	
1450	22.7	117	.268	7.20	5	
1510	22.0	80	.274	7.17	6	
1525	23.8	55	.274	7.26	7	
1535	23.0	23	.2[illegible]	7.24	8	
1550	24.1	14	.264	7.20	9	
1600	23.8	10	.265	7.22	10	
1612	23.6	6	.265	7.23	11	
1624	23.8	1	.264	7.23	12	

Laboratory: STL
Date of Shipment: 2-25-03
Via: FedEx
Weather: Sunny, High 60's

Field Sampling Report	LAW Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date 2-25-03 Job No. 12000-0-2050 Job Name T.K. Louisville Location Well ID MW-10

Sampling Information Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-10	18:00	C	GW	3	—	—	X						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials GAO

Field Measurements
GW Depth: 30.15
Equipment ID:
Total Depth: 47.85
Purge Vol: 9 gallons

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
15:23	24.7	132	.271	7.20	1.0	
15:40	24.6	33	.275	7.25	2.0	
15:56	25.7	16	.266	7.20	3.0	
16:12	24.3	0	.261	7.14	4.0	
16:34	24.1	220	.273	7.16	5.0	
16:49	24.8	60	.262	7.07	6.0	
17:06	24.7	15	.254	6.99	7.0	
17:22	24.5	3	.255	6.97	8.0	
17:39	24.5	3	.254	6.98	9.0	

Laboratory:
Date of Shipment:
Via: Fed Ex
Weather:

Field Sampling Report	LAW Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date 2-25-03 Job No. 12000-0-2050 Job Name T.K. Louisville Location Well ID MW-11

Sampling Information Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-11	12:45	C	GW	3	–	–	X						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials GAO

Field Measurements
Equipment ID:
GW Depth:
Total Depth:
Purge Vol:

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
0850	18.3	723	.268	6.70	1.0	
09:14	20.9	28	.213	7.13	2.0	
09:35	21.3	6	.213	7.33	3.0	
09:55	22.0	44	.212	7.38	4.0	
10:10	23.1	2	.214	7.44	5.0	
10:25	23.1	4	.215	7.45	6.0	
10:43	23.6	3	.214	7.45	7.0	
11:01	23.7	6	.213	7.42	8.0	
11:18	23.7	6	.213	7.48	9.0	
11:36	24.1	114	.212	7.35	10.0	
11:54	23.5	3	.213	7.32	11.0	
12:12	23.3	0	.213	7.31	12.0	
12:28	23.4	4	.212	7.34	13.0	

Laboratory:
Date of Shipment:
Via: Fed Ex
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date 2-25-03
Job No. 12000-0-2050
Job Name TIC-LOUISVILLE
Location
Well ID MW-12

Sampling Information / Sample ID MW-12	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
	1240	C	GW	3			✓						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials CMS

Field Measurements
Equipment ID:
GW Depth: 50.99 **Total Depth:** **Purge Vol:** 11

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
0832	18.0	290	.232	4.99	0	
0852	20.3	105	.189	6.75	1	
0905	20.8	48	.186	7.49	2	
0925	21.8	33	.184	7.46	3	
0945	21.2	16	.183	7.70	4	
1005	21.7	14	.185	7.56	5	
1025	22.3	14	.184	7.50	6	
1045	22.3	10	.183	7.52	7	
1110	21.6	8	.182	7.57	8	
1135	22.5	11	.186	7.60	9	
1205	22.4	7	.183	7.59	10	
1225	21.8	1	.184	7.62	11	

Laboratory: STL **Date of Shipment:** 2-26-03 **Via:** Fed Ex

Weather: Sunny, Low 50's

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 2-26-03
Job No.: 12000-0-2050
Job Name: TK-Louisville
Location:
Well ID: MW-13

Sampling Information Sample ID MW-13	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
	1160	C	GW	3			✓						8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: EMS, GO

Field Measurements
Equipment ID:
GW Depth: 10.05
Total Depth:
Purge Vol: 7

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
0915	15.3	50	.180	5.57	0	
0925	16.2	43	.120	5.67	1	
0935	16.5	29	.121	5.81	2	
0945	16.5	16	.120	5.83	3	
0955	16.6	12	.120	5.80	4	
1015	16.7	10	.123	5.89	5	
1030	16.3	6	.121	5.90	6	
1045	16.7	1	.123	5.93	7	

Laboratory: STL
Date of Shipment: 2-26-03
Via: Fed Ex
Weather: Rain

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date 4-3-03
Job No. 12000-0-2050
Job Name TK-Louisville
Location
Well ID MW-14

Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-14	1710	C	GW	3			✓						SW8260B
MW-400 (dup)	1200	C	GW	3			✓						
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials EMS, MJV

Field Measurements
Equipment ID:
GW Depth: 63.97ft **Total Depth:** 88.40ft **Purge Vol:** 50

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
1430	22.2	679	0.335	6.75	0	63.97
1545	23.0	575	0.336	6.92	10	
1555	24.1	700	0.340	7.00	20	
1600	24.5	796	0.342	7.06	28	
1605	23.8	481	0.342	6.53	34	
1610	23.6	487	0.343	6.85	35	
1615	22.3	538	0.344	6.91	36	
1620	22.5	574	0.343	6.93	47	
1645	22.3	721	0.343	6.91	50	63.95

Laboratory: STL-North Canton **Date of Shipment:** 4-4-03 **Via:** FedEx
Weather: Sunny

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 6-13-03
Job No.: 12000-0-2050
Job Name: TK Louisville
Location: Louisville, GA
Well ID: MW-14

Sampling Information Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-14 7:10	7:10	GW	MW	3			3						VOCs 8260
MW-14 9:30	9:30	↓	↓	3			3						↓
MW-14 Totals 12:15	12:15	↓	↓	3			3						↓

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: LAS

Field Measurements
GW Depth: 64.08
Equipment ID:
Total Depth: 88.6
Purge Vol: 13

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
7:00					0	
7:10	21.3	71	0.298	7.42	15	
7:30	20.7	1	0.295	7.26	30	
7:48	20.8	8	0.293	7.21	55	
8:08	20.4	7	0.287	7.52	85	
8:25	20.3	10	0.293	7.42	110	
9:05	20.6	1	0.293	7.20	165	
9:30	21.0	12	0.291	7.56	200	
9:50	21.4	17	0.293	7.53	220	
10:30	20.8	23	0.287	7.59	275	
11:10	21.5	41	0.293	7.38	330	
11:48	21.7	18	0.291	7.35	385	
12:10	21.8	17	0.290	7.37	415	

Laboratory: STL NE
Date of Shipment: 6-13-03
Via: FedEx
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 7-8-03
Job No.: 12000-0-0050
Job Name: TK Louisville
Location: Louisville, Ky
Well ID: MW-14

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)	25 mL					Analysis
MW-14	18:15	GW	MW	2	1			1					Ca Mg Na K Cald Sulfate Alkalinity
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: RAS/WTG

Field Measurements
Equipment ID:
GW Depth: 64.42 Total Depth: 88.6 Purge Vol: 12,4l

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
17:55	21.4	572	0.405	7.47	4	
18:00	20.9	386	0.408	7.35	8	
18:05	20.8	231	0.407	7.28	12	
18:10	20.6	168	0.408	7.23	16	

Laboratory: STL NC
Date of Shipment: 7-9-03
Via: FedEx
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 4-3-03
Job No.: 12000-0-2050
Job Name: TK-Louisville
Location:
Well ID: MW-15

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-15	1316	C	GW	3			✓						SW 8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: EMS, MAV

Field Measurements
Equipment ID:
GW Depth: 4.02 ft
Total Depth: 14.4 ft
Purge Vol: 9 gallons

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
1055	17.5	882	0.570	5.55	0	4.02
1100	17.1	554	0.465	6.56	.25	
1105	16.7	217	0.466	6.53	.75	
1110	16.4	183	0.461	6.47	1.0	
1115	16.9	99	0.465	6.53	1.25	
1120	16.5	63	0.463	6.53	1.50	
1125	16.4	58	0.459	6.52	1.75	
1135	16.4	46	0.454	6.55	2.0	
1155	16.5	23	0.421	6.60	3.0	
1212	16.1	25	0.399	6.51	4.0	
1220	16.2	20	0.398	6.44	5.0	
1231	16.5	12	0.395	6.46	6.0	
1246	16.9	10	0.388	6.49	7.0	
1257	17.1	5	0.387	6.46	8.0	
1305	17.3	2	0.390	6.46	9.0	4.08

Laboratory: STL - North Canton
Date of Shipment: 4-3-03
Via: FedEx
Weather: Sunny

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 4-4-03
Job No.: 12000-0-2050
Job Name: TK-Louisville
Location:
Well ID: MW-16

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-16	1205	C	GW	3			✓						SW 8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: EMS, MAV

Field Measurements
GW Depth: 3.68
Total Depth: 15.0
Equipment ID:
Purge Vol: 9

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
0942	16.8	69	0.130	4.69		3.68
0958	16.5	129	0.065	5.42		
1013	17.0	209	0.062	5.63		
1030	17.1	11	0.061	5.61		
1045	17.6	8	0.064	5.58		
1100	17.1	4	0.063	5.50		
1115	17.3	1	0.063	5.51		
1130	16.3	3	0.063	5.52		
1145	16.8	2	0.063	5.53		
1200	16.8	6	0.062	5.50		3.60

Laboratory: STL-North Canton
Date of Shipment: 4-4-03
Via: FedEx
Weather: Sunny

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 7-8-03
Job No.: 12000-0-2050
Job Name: TK Louisville
Location: Louisville, GA
Well ID: MW-17

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)	250 ml					Analysis
MW-17	12:00	GW	MW	3	1			1					Ca Mg Na K Cl Sulfate Alkalinity
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: RAS/NTG

Field Measurements
Equipment ID:
GW Depth: 11.90
Total Depth: 51.0
Purge Vol: 29

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
11:17				*	0	
11:20	21.1	162	0.567	7.11	3	
11:30	19.3	54	0.545	7.16	9	
11:33	19.2	65	0.541	7.05	12	
11:40	18.9	48	0.539	6.97	17	
11:45	18.8	32	0.538	7.00	21	
11:55	18.8	36	0.537	7.00	29	

Laboratory: STL NC
Date of Shipment: 7-9-03
Via: FedEx
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 7-8-03
Job No.: 12000-0-2050
Job Name: TK Louisville
Location: Louisville, GA
Well ID: MW-18

Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)	250 ml					Analysis
MW-18	13:20	GW	MW	2	1			1					Ca mg K Na Cl Sulfate Alkalinity
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: RAS/NTG

Field Measurements
Equipment ID:
GW Depth: 5.85
Total Depth: 45.5
Purge Vol: 27 gal

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
12:45	18.9	110	0.481	7.00	3	
12:50	18.4	67	0.494	6.80	7	
12:55	18.1	70	0.496	6.73	11	
13:00	17.9	60	0.497	6.70	15	
13:10	17.4	66	0.495	6.64	23	
13:15	17.3	45	0.497	6.62	27	

Laboratory: STL NC
Date of Shipment: 7-9-03
Via: FedEx
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 5-28-03
Job No.: 12000-0-2050
Job Name: TK Louisville
Location: Louisville, GA
Well ID: MW-19

Sampling Information Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-19	1555	GW	MW	3			3						VOC 8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: SDP / AWK

Field Measurements
Equipment ID:
GW Depth: 31.81
Total Depth: 49.25
Purge Vol: 8.5 gal

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
1345	28.9	158	0.52	8.56	1	
1355	29.1	18.5	1.31	8.85	2	
1410	30.0	8.8	2.2	8.83	3	
1420	30.0	24.1	3.8	8.70	4	
1430	29.3	8.5	3.8	8.61	5	
1435	30.1	3.7	3.8	8.42	6	
1450	29.2	1.8	3.8	8.33	7	
1500	30.7	1.3	4.3	8.20	8	
1505	29.1	2.1	4.5	8.13	9	
1510	27.9	1.7	4.6	7.93	10	
1515	27.8	1.4	4.9	7.93	11	
1520	28.3	0.5	4.9	7.86	12	
1540	29.1	0.42	4.9	7.85	13	
1545	28.2	0.43	4.9	7.81	14	

Laboratory: STL NC
Date of Shipment: 5-27-03
Via: Fed Ex
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 6-13-03
Job No. 12200-02056
Job Name TK Louisville
Location Louisville GA
Well ID MW-19

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-19	10:45	GW	MW	3			3						VOC 8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: RAS

Field Measurements
Equipment ID:
GW Depth: 32.01
Total Depth: 49.5
Purge Vol: 9 gal

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
8:05	20.1	999	0.133	8.65	1	
8:20	20.0	↓	0.119	9.76	3	
9:35	20.6		0.197	8.76	6	
10:05	20.7		0.127	9.25	9	
10:15	20.8		0.161	8.43	11	
10:25	20.7	↓	0.159	8.44	13	

Laboratory: STL NC
Date of Shipment: 6-13-03
Via: Fed Ex
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date 7-8-03
Job No. 12000-0-2050
Job Name TK Louisville
Location Louisville, GA
Well ID MW-19

Sampling Information

Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)	250 ml					Analysis
MW-19	19:10	GW	MW	2	1			1					Ca, Mg, Na, K, Cl, Sulfate, Alkalinity
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials KAS/WTG

Field Measurements
Equipment ID:
GW Depth: 32.03 **Total Depth:** 49.5 **Purge Vol:** 9 gal

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
18:42	21.3	215	0.218	9.2	2	
18:46	21.0	204	0.228	8.71	4	
18:50	21.0	173	0.227	8.42	6	
18:54	21.0	624?	0.237	7.69	8	
18:58	20.9	95	0.243	7.31	10	
19:02	20.8	207	0.243	7.29	12	

Laboratory: STL NC **Date of Shipment:** 7-9-03 **Via:** Fed Ex
Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 5-28-03
Job No.: 12000-0-2050
Job Name: TK Louisville
Location: Louisville, GA
Well ID: MW-20

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-20	1845	GW	MW	3			3						VOC 8260B
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: SDD/DWK

Field Measurements
Equipment ID:
GW Depth: 79.38
Total Depth: 102.68
Purge Vol: 11.4

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
16:55	27.3	79.5	5.81	7.56	1	
17:05	26	85.3	7.46	7.29	2	
17:10	27.2	51.8	7.50	7.37	3	
17:20	29.3	19.9	8.65	7.31	4	
17:25	25.9	13.6	8.28	7.29	5	
17:30	25.5	11.5	7.62	7.29	6	
17:35	25.7	12.9	7.5	7.30	7	
17:40	26.2	14.9	7.5	7.30	8	
17:50	26.2	22.5	7.55	7.33	9	
17:55	25.8	91.1	7.88	7.23	10	
18:00	26	158	7.87	7.31	11	
18:05	26.3	156	7.41	7.35	12	
18:10	26.5	62	7.47	7.32	13	
18:20	25.7	32.5	7.59	7.30	14	
18:30	25.2	29.1	7.56	7.41	15	

Laboratory: STL NC
Date of Shipment: 5-29-03
Via: Fed Ex
Weather:

Field Sampling Report	LAW Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date: 6-12-03 Job No.: 12000-0-2050 Job Name: TK Louisville Location: Louisville, GA Well ID: MW-20

Sampling Information Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-20 12:10	12:10	GW	MW	3			3						VOCs 8260
MW-20 15:00	15:00	GW	"	"			"						"
MW-20 Totals 17:30	17:30	GW	"	"			"						"

Type Codes
FB - Field Blank; TB - Trip Blank; G - Grab; C - Composite

Source Codes
SS - Sub-Soil Composite; SC - Surface Soil Composite; W - Waste; S - Soil; GW - Groundwater

Sampler's Initials: RAS

Field Measurements
GW Depth: 79.63 Total Depth: 106.6 Equipment ID: Purge Vol: 415 gal

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
12:10	24.3	13	0.331	6.77	15	
12:35	23.1	11	0.326	7.30	30	
12:52	23.1	7	0.321	7.15	55	
13:40	23.5	38	0.324	7.19	100	
14:10	23.6	38	0.321	7.12	140	
14:25	23.7	9	0.320	7.22	165	
14:48	23.8	39	0.319	7.05	200	
15:30	23.8	31	0.316	7.16	250	
15:48	23.4	24	0.319	7.03	275	
16:05	23.5	14	0.319	7.16	300	
16:25	23.4	21	0.318	7.06	330	
16:45	23.4	27	0.320	7.15	355	
17:05	23.4	25	0.319	7.10	385	
17:25	23.2	14	0.320	7.09	415	

Laboratory: STL North Canton Date of Shipment: 6-13-03 Via: FedEx

Weather:

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 7-8-03
Job No.: 12000-0-2050
Job Name: TK Louisville
Location: Louisville, GA
Well ID: MW-20

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)	250 ml					Analysis
MW-20	16:00	~~GW~~	MW	2	1			1					Ca mg Na/c Chld Sulfate Alkalinity
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: RAS INTG

Field Measurements
Equipment ID:
GW Depth: 79.5
Total Depth: 106.6
Purge Vol:

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
15:38	22.9	416	0.453	7.01	3	
15:43	22.9	83	0.455	7.20	8	
15:48	22.7	53	0.457	7.18	13	
15:53	22.7	13	0.457	7.18	18	

Laboratory: STL NC
Date of Shipment: 7-9-03
Via: Fed Ex
Weather:

Field Sampling Report

MACTEC
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 9/10/03
Job No.: 12000-0-2050.118
Job Name: TK - Louisville
Location: Louisville GA
Well ID: MW-21

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-31	1045	G	GW	3			3						8260 VOCs
Trip Blank													8260
Totals				3			3						

Type Codes
FB - Field Blank; TB - Trip Blank; G - Grab; C - Composite

Source Codes
SS - Sub-Soil Composite; SC - Surface Soil Composite; W - Waste; S - Soil; GW - Groundwater

Sampler's Initials: SD/CC

Field Measurements
Equipment ID:
GW Depth: 75.2 Total Depth: 104.95 Purge Vol: 15

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
0938	22.7	170	0.380	6.71	2.5	Water clear
0940	23.2	34	0.356	6.95	3.5	
0945	23.2	15	0.356	7.04	4.75	
0950	23.3	6.4	0.357	7.11	6	
0955	23.5	4.3	0.357	7.11	7	
1000	23.4	4	0.357	7.12	8	
1005	23.5	3.6	0.357	7.12	9.5	
1010	23.6	4.5	0.356	7.13	10	
1015	23.5	4.1	0.356	7.14	10.5	
1020	23.4	3.5	0.356	7.14	11.5	
1025	23.4	4.3	0.355	7.14	13	
1030	23.6	3.8	0.356	7.12	13.5	
1035	23.6	3.8	0.356	7.12	14	
1045	23.4	3.4	0.356	7.15	15	water clear

Laboratory: STL
Date of Shipment: 9/10/03
Via: FedEx
Weather: Clear, sunny ~85°F

Field Sampling Report	MACTEC Engineering and Environmental Services, Inc. 112 TownPark Drive Kennesaw, Georgia 30144 (404) 421-3400	Date 9/10/03 Job No. 12000-0-2050.118 Job Name TK Louisville Location Louisville Well ID MW-22

Sampling Information														
Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)							Analysis
MW-22	1245	G	GW	3			3							8260 VOCs
DUP-1	1200	G	GW	2			2							8260
Totals				5			5							

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials CC/SD

Field Measurements
GW Depth: 78.75
Total Depth: 105.2
Equipment ID:
Purge Vol: 58

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
1140	21.9	800	0.316	7.32	3	
1145	23.0	330	0.313	7.38	4	
1150	23.1	110	0.298	8.29	4.5	
1155	22.1	45	0.324	8.22	7.5	
1200	21.6	31	0.338	7.91	12	
1205	21.6	34	0.340	7.52	15	
1210	21.8	34	0.336	7.35	19	
1215	21.5	31	0.338	7.31	23	
1220	21.4	25	0.338	7.23	25	
1225	21.5	18	0.340	7.25	29	
1230	21.4	13	0.344	7.24	32	
1235	21.4	8.5	0.346	7.23	35	
1240	21.2	8.5	0.346	7.23	58	water clear 89.3 final dtw water

Laboratory: STL
Date of Shipment: 9/10/03
Via: FedEx
Weather: Clear, Sunny ~85°F

Field Sampling Report

LAW MACTEC
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date: 9/11/03
Job No.: 2000-0-2050.116
Job Name: TK Louisville
Location: Louisville GA
Well ID: MW-23

Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)						Analysis
MW-23	1045	W	GW	3			/						8260 VOCs
Trip Blank		W	TB	1									
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials: CC

Field Measurements
Equipment ID:
GW Depth: 78.80
Total Depth: 105.65
Purge Vol: 16 gallons

Results

Time	Temperature °C	Turbidity NTU	Conductivity ms/cm	pH	Volume gal	Comments/Water Level
1010	20.9	7.7	0.435	5.77	2.5	water clear/ 78.80
1015	21.0	7.5	0.389	6.76	4.5	
1020	21.1	10	0.380	6.98	7	
1025	21.2	9.6	0.382	7.01	9	
1030	21.1	10	0.379	7.04	11	
1035	21.2	9.5	0.379	7.08	14	
1040	21.2	10	0.378	7.06	16	
						ending water level 78.80

Laboratory: STL
Date of Shipment: 9/11/03
Via: Fed EX
Weather: Clear Sunny ~78°F slight breeze

Field Sampling Report

LAW
Engineering and Environmental Services, Inc.
112 TownPark Drive
Kennesaw, Georgia 30144
(404) 421-3400

Date 7-8-03
Job No. 12000-0205
Job Name TK Louisville
Location Louisville, GA
Well ID Manson Br

Sampling Information / Sample ID	Time	Type	Source	No. Containers	500 ml HDPE (HNO	1 liter Amber	40 ml VOA (HCl)	250 ml					Analysis
Manson Br	14:00	SW	creek	2	1			1					Ca Mg K Na Cl Sulfate Alkalinity
Totals													

Type Codes
FB - Field Blank
TB - Trip Blank
G - Grab
C - Composite

Source Codes
SS - Sub-Soil Composite
SC - Surface Soil Composite
W - Waste
S - Soil
GW - Groundwater

Sampler's Initials RAS/NTG

Field Measurements
Equipment ID:
GW Depth: NA **Total Depth:** NA **Purge Vol:** NA

Results

Time	Temperature	Turbidity	Conductivity	pH	Volume	Comments/Water Level
14:00	26.6	26	0.076	6.46	—	surface water
						Sample from
						Manson Branch

Laboratory: STL NC **Date of Shipment:** 7-9-03 **Via:** Fed Ex

Weather:

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-1-A

Sample Time/Date Depth to top of PDB (btoc) 72.2 1305 5-5-04

Project Name TK Louisville

WELL MEASUREMENTS

Total Depth	74.8	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	47.3	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	22.7				
pH	5.89				
Conductivity (mhos)	0.089				
Turbidity (NTU)	0.22				
Volume (gal)	—				
Time	1305				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-1

Project Name TK Louisville Sample Time/Date 1520 5-5-04

WELL MEASUREMENTS

Total Depth	74.8	ft	Casing Diameter	2	in	2" diam =	0.163 gal/ft
Depth to Water	47.3	ft	Casing Volume	.163	gal	4" diam =	0.653 gal/ft
Water Column	27.5	ft	Purge Volume	13.4	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump grunfos

Teflon Bailer —

SAMPLING METHOD

Pump —

Teflon Bailer yes

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	21.4	21.1	21.0	21.1	21.3
pH	5.94	6.14	6.13	6.15	6.10
Conductivity (mhos)	0.105	0.126	0.127	0.127	0.124
Turbidity (NTU)	11.7	17.8	15.1	12.7	4.72
Volume (gal)	.25	13	13.5	14	15
Time	1320	1425	1427	1430	1435
water Level	49.21	50.9	50.89	50.90	51.0

COMMENTS: Total and Dissolved Metals samples taken after purge.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-1 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB (circle one method) TIME: 1550

DUP./REP. OF: N/A DEPTH TO WATER: 47.88 ft GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 75.0 ft

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1550	PDB	4.58	24.3	0.01	~~0.01~~ BD	N/A ( )	
					0.55		

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic BD	1 BD	HNO3 BD	6010B BD	Total Metals - TK Lou list BD
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION	
WEATHER:	OVERCAST
SHIPPED VIA:	FedEX
SHIPPED TO:	STL - North Canton, OH
SAMPLER: BAL	OBSERVER: CAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-1 DEPTH TO PRODUCT: N/A DATE: 10/13/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1205

DUP./REP. OF: N/A DEPTH TO WATER: 47.88 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 75.0 FT

Arrived at: 0950 PURGE VOLUME: 13.26 GALLONS

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1020		5.71	20.5	0.11	23.4	750 (166)	
1050	5	5.63	21.3	0.08	16.7	525 (163.8)	50.75
1125	10	5.65	22.2	0.10	12.2	450 (162.2)	50.30
1132	11	5.64	22.2	0.10	10.12	450 (162.2)	50.12
1140	12	5.67	22.1	0.10	8.60	450 (162.2)	50.10
1145	13	5.65	22.6	0.10	5.20	450 (162.2)	50.10
1150	14	5.68	22.5	0.11	9.60	450 (162.2)	50.00

COMMENTS: 1205: COLLECT TOTAL AND DISSOLVED METALS SAMPLES

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
~~40 mL~~	~~3~~	~~HCL to pH<2~~	~~8260B~~	~~Volatiles - TK Lou list~~
~~1 L Plastic~~	~~1~~	~~HNO3~~	6010B	~~Total Metals - TK Lou list~~
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER:	DAL	OBSERVER: CAS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD|BK Sample Location: MW-2-A

Top of PVC (btoc) = 55.4

Project Name TK Louisville Sample Time/Date 1630 5-5-04

WELL MEASUREMENTS

Total Depth	57.8	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	38.35	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	—				
pH	—				
Conductivity (mhos)	—				
Turbidity (NTU)	0.05				
Volume (gal)	—				
Time	1630				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-2 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR ~~PDB~~ *(circle one method)* TIME: 1610

DUP./REP. OF: N/A DEPTH TO WATER: 38.77 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 58.0 FT

Arrived at: NA PURGE VOLUME: N/A

Initial PID = NA [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = NA

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1610	PDB	5.10	24.4	0.01	0.28	N/A ( )	
COMMENTS:							

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic (AD)	1 (AD)	HNO3 (B2)	6010B (B2)	Total Metals - TK Lou list (DB)
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER:	BAK	OBSERVER:	CAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-3-A

Top of PDB (btoc) = 57.5

Project Name TK Louisville Sample Time/Date 915 5-6-04

WELL MEASUREMENTS

Total Depth	59.8	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	41.3	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump see comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	21.8				
pH	4.63				
Conductivity (mhos)	0.025				
Turbidity (NTU)	0.11				
Volume (gal)	—				
Time	915				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-3

Project Name TK Louisville Sample Time/Date 1040 5-6-04

WELL MEASUREMENTS

Total Depth	59.8	ft	Casing Diameter	2	in	2" diam =	0.163 gal/ft
Depth to Water	41.3	ft	Casing Volume	.163	gal	4" diam =	0.653 gal/ft
Water Column	18.5	ft	Purge Volume	9.04	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump grunfos

Teflon Bailer —

SAMPLING METHOD

Pump —

Teflon Bailer yes

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	22.7	25.0	25.2	25.1	25.1
pH	4.97	5.65	5.69	5.71	5.70
Conductivity (mhos)	0.110	0.120	0.127	0.122	0.122
Turbidity (NTU)	294	9.96	2.59	2.23	1.79
Volume (gal)	0	7	8	9	10
Time	925	1005	1015	1020	1028
water Levels	42.3	42.7	42.65	42.68	42.5

COMMENTS: Total and Dissolved Metals sampled after purge.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-3 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR ~~PDB~~ *(circle one method)* TIME: 1620

DUP./REP. OF: N/A DEPTH TO WATER: 41.82 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 60.0 Ft

Arrived at: NA PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1620	PDB	4.49	24.7	0.01	0.00	N/A ( )	

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic (W)	1 (W)	HNO3 (W)	6010B (W)	Total Metals - TK Lou list (W)
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: BAL		OBSERVER: CAS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-3 DEPTH TO PRODUCT: / DATE: 10/13/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 08:04

DUP./REP. OF: DEPTH TO WATER: 41.82 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 60.0 FT

Arrived at: 07:57 PURGE VOLUME: 8.89 GALLONS

Initial PID = / [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = /

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		5.08	23.7°	0.14	70.20	300 (ml/min.)	
0830	1	5.12	24°	0.13	52.60	300	42.29
0845	3	5.33	24.8°	0.11	11.80	300	42.41
0915	5	5.48	26.2	0.11	2.66	300	42.41
0925	6	5.49	26.5	0.11	1.43	300	42.41
0935	7	5.49	26.5	0.10	0.70	300	42.41
0945	8	5.49	27.0	0.10	0.70	300	42.41
0955	9	5.50	27.0	0.10	0.50	300	42.41

COMMENTS: SAMPLED @ 10:00 *

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic	1	HNO3	6010B	Total Metals - TK Lou list
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION		
WEATHER:	Cloudy	
SHIPPED VIA:	FedEX	
SHIPPED TO:	STL - North Canton, OH	
SAMPLER:		OBSERVER:

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-4-A

Top of PDB (btoc) = 55.5

Project Name TK Louisville Sample Time/Date 1215 5-6-04

WELL MEASUREMENTS

Total Depth	57.9	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	42.5	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	26.4				
pH	~~12.023~~ SD 5.31				
Conductivity (mhos)	0.023				
Turbidity (NTU)	1.03				
Volume (gal)	—				
Time	1215				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-4

Project Name TK Louisville Sample Time/Date 1400 5-6-04

WELL MEASUREMENTS

Total Depth	57.9	ft	Casing Diameter	2	in	2" diam =	0.163 gal/ft
Depth to Water	42.5	ft	Casing Volume	.163	gal	4" diam =	0.653 gal/ft
Water Column	15.4	ft	Purge Volume	7.53	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump grunfos

Teflon Bailer —

SAMPLING METHOD

Pump —

Teflon Bailer yes

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	26.3	28.1	27.4	27.0	26.8
pH	6.07	6.90	7.02	7.04	7.05
Conductivity (mhos)	0.173	0.278	0.275	0.275	0.273
Turbidity (NTU)	18.2	6.5	4.66	2.86	2.93
Volume (gal)	0	5	6	7	8
Time	1225	1335	1345	1350	1358
Water Level	41.4	42.3	42.3	42.25	42.2

COMMENTS: Total and Dissolved Metals sampled after purge.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-4 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR ~~PDB~~ *(circle one method)* TIME: 1630

DUP./REP. OF: N/A DEPTH TO WATER: 40.17 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 58.0 FT

Arrived at: NA PURGE VOLUME: N/A

Initial PID = NA [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1630	PDB	4.71	24.8	0.00	0.10	N/A ( )	

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
(40 ml)	(3)	(HCL to pH<2)	(8260B)	(Volatiles - TK Lou list)
1 L Plastic (60)	1 (60)	HNO3 (60)	6010B (62)	Total Metals - TK Lou list (62)
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER:	BAHL	OBSERVER:	CAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-4 DEPTH TO PRODUCT: N/A DATE: 10/13/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 0925

DUP./REP. OF: N/A DEPTH TO WATER: 40.19 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 58.0 FT

Arrived at: 0750 PURGE VOLUME: 8.72 GALLONS

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 0755		6.79	24.3	0.26	344	280 (USO 2)	
0805	1.5	6.86	24.6	0.27	357	300 (151.6)	42.15 FT
0840	5	6.88	25.2	0.28	19.0	305 (151.6)	42.45 FT
0845	6	6.91	25.4	0.28	13.4	305 (151.6)	42.50 FT
0850	7	7.20	25.5	0.27	10.74	300 (151.6)	42.53 FT
0855	8	7.19	25.8	0.27	11.20	300 (151.6)	42.58 FT
0905	9	7.15	26.1	0.26	11.10	300 (151.6)	42.70 FT

COMMENTS: 0925 - COLLECT TOTAL AND DISSOLVED METALS SAMPLES

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
~~40 mL~~ (VOA)	~~3~~ (VOA)	~~HCL to pH<2~~ (VOA)	~~8260B~~ (VOA)	~~Volatiles - TK Lou list~~ (BTEX)
1 L Plastic	1	~~HNO3~~	6010B	Total Metals - TK Lou list
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: BAC		OBSERVER: CAS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-0050 Sampler SD/BK Sample Location: MW-5-A

Top of PDB (6 to C) = 51.4

Project Name TK Louisville Sample Time/Date 730 5-7-04

WELL MEASUREMENTS

Total Depth	53.8	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	39.8	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	19.4				
pH	5.03				
Conductivity (mhos)	0.059				
Turbidity (NTU)	0.05				
Volume (gal)	—				
Time	730				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-5

Project Name TK Louisville Sample Time/Date 830 5-7-04

WELL MEASUREMENTS

Total Depth	53.8	ft	Casing Diameter	2	in	2" diam =	0.163 gal/ft
Depth to Water	39.8	ft	Casing Volume	.163	gal	4" diam =	0.653 gal/ft
Water Column	14	ft	Purge Volume	6.8	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump grundfos

Teflon Bailer —

SAMPLING METHOD

Pump —

Teflon Bailer yes

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	19.4	22.2	22.5	22.2	22.0
pH	5.27	6.14	6.17	6.17	6.17
Conductivity (mhos)	0.125	0.155	0.155	0.155	0.155
Turbidity (NTU)	14.4	5.05	4.26	3.29	1.9
Volume (gal)	0	4	5	6	7
Time	740	805	810	815	820
Water Level	40.75	49.2	41.15	41.2	41

COMMENTS: Total and Dissolved Metals sampled after purge.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-5 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB (circle one method) TIME: 1730

DUP./REP. OF: N/A DEPTH TO WATER: 40.06 Ft GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 54.0 Ft

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1730	PDB	4.84	25.1	0.01	0.00	N/A ( )	

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic	1	HNO3	6010B	Total Metals - TK Lou list
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION	
WEATHER:	OVERCAST
SHIPPED VIA:	FedEX
SHIPPED TO:	STL - North Canton, OH
SAMPLER: DAK	OBSERVER: CAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: DUPGW1004 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 00:00 (DUP)

DUP./REP. OF: MW-5 DEPTH TO WATER: DUP GRAB (x) COMPOSITE ( )

TOTAL DEPTH: DUP

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 00:00	PDB	4.84	25.1	0.01	0.00	N/A ( )	

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic (BV)	1 (BV)	HNO3 (BV)	6010B (BV)	Total Metals - TK Lou list (BV)
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION	
WEATHER:	OVERCAST
SHIPPED VIA:	FedEX
SHIPPED TO:	STL - North Canton, OH
SAMPLER: MAL	OBSERVER: GAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-5 DEPTH TO PRODUCT: N/A DATE: 10/13/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1500

DUP./REP. OF: N/A DEPTH TO WATER: 40.06 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 54.0 FT

Arrived at: 1350 PURGE VOLUME: 6.81 Gallons

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1400		5.40	22.4	0.11	21.8	480 (14?.1)	
1415	3	3.95	24.3	0.13	8.10	375 (14?.6)	40.98
1430	5	5.70	24.7	0.12	1.92	375 (14?.6)	41.15
1445	6	5.75	24.3	0.13	0.00	375 (14?.6)	41.32
1455	7	5.78	24.6	0.12	0.00	375 (14?.6)	41.25

COMMENTS: 1500 COLLECT TOTAL AND DISSOLVED METALS SAMPLES

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL (VOA)	3 (VOA)	HCL to pH<2 (VOA)	8260B (VOA)	Volatiles - TK Lou list (VOC)
1 L Plastic	1	HNO3	6010B	~~Total Metals - TK Lou list~~
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	Overcast		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER:	DAL	OBSERVER:	CAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: DupGW1004 **DEPTH TO PRODUCT:** N/A **DATE:** 10/13/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* **TIME:** 0000

DUP./REP. OF: MW-5 **DEPTH TO WATER:** Dup **GRAB (x) COMPOSITE ( )**

TOTAL DEPTH: Dup

Arrived at: N/A **PURGE VOLUME:** Dup

Initial PID = N/A

Bailing PID = N/A

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:						( )	
N/A →	(DUPLICATE)						

COMMENTS: DUPLICATE SAMPLE COLLECTED FROM MW-5 AT SAME TIME MW-5 WAS COLLECTED

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL (60)	3 (6)	HCL to pH<2	8260B (60)	Volatiles - TK Lou list (60)
1 L Plastic	1	HNO3	6010B	Total Metals - TK Lou list
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER:	BAL	**OBSERVER:**	CDS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-8-A

Top of PDB (btoc) = 60.6'

Project Name TK Louisville Sample Time/Date 925 5-7-04

WELL MEASUREMENTS

Total Depth	69.8	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	42.5	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See Comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	22.2				
pH	4.73				
Conductivity (mhos)	0.045				
Turbidity (NTU)	0.18				
Volume (gal)	—				
Time	925				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-8-B Top of PDB (6toc) 65.6'

Project Name TK Louisville Sample Time/Date 930 5-7-04

WELL MEASUREMENTS

Total Depth	69.8	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	42.5	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	21.3				
pH	5.04				
Conductivity (mhos)	0.018				
Turbidity (NTU)	0.01				
Volume (gal)	—				
Time	930				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-8 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1520

DUP./REP. OF: N/A DEPTH TO WATER: 42.97 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 70.2 FT

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1520	PDB	4.96	23.9	0.00	0.29	N/A ( )	
COMMENTS:							

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic	1	HNO3	6010B	Total Metals - TK Lou list
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: BAL		OBSERVER: CAS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-10-A

Top of PDB (btoc) = 38.6'

Project Name TK Louisville Sample Time/Date 1440 5-6-04

WELL MEASUREMENTS

Total Depth	47.6	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	28.6	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	25.0				
pH	6.50				
Conductivity (mhos)	0.089				
Turbidity (NTU)	0.25				
Volume (gal)	—				
Time	1440				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-10-B

Top of PDB (btoc) = 43.6'

Project Name TK Louisville Sample Time/Date 1445 5-6-04

WELL MEASUREMENTS

Total Depth	47.6	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	28.6	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump see comments

Teflon Bailer ——

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	23.1				
pH	5.59				
Conductivity (mhos)	0.018				
Turbidity (NTU)	0.56				
Volume (gal)	—				
Time	1445				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-10

Project Name TK Louisville Sample Time/Date 1630 5-6-04

WELL MEASUREMENTS

Total Depth	47.6	ft	Casing Diameter	2	in	2" diam =	0.163 gal/ft
Depth to Water	28.6	ft	Casing Volume	.163	gal	4" diam =	0.653 gal/ft
Water Column	19	ft	Purge Volume	9.29	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump grunfos

Teflon Bailer —

SAMPLING METHOD

Pump —

Teflon Bailer yes

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	22.7	24.6	24.0	24.0	24.0
pH	5.39	6.53	6.68	6.68	6.69
Conductivity (mhos)	0.102	0.185	0.186	0.188	0.190
Turbidity (NTU)	123	4.08	2.52	2.13	2.02
Volume (gal)	0	7	8	9	10
Time	1505	1600	1610	1615	1620
Water Level	31.7	34.2	34.2	34.2	34.2

COMMENTS: Total and Dissolved Metals sampled after purge.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-10 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB (circle one method) TIME: 1645

DUP./REP. OF: N/A DEPTH TO WATER: 29.04 GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 45.2

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1645	PDB	4.55	24.5	0.00	0.00	N/A ( )	

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic	1	HNO3	6010B	Total Metals - TK Lou list
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION	
WEATHER:	OVERCAST
SHIPPED VIA:	FedEX
SHIPPED TO:	STL - North Canton, OH
SAMPLER: BAK	OBSERVER: CAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-10 DEPTH TO PRODUCT: / DATE: 10-13-04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1035

DUP./REP. OF: / DEPTH TO WATER: 29.04 Ft GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 45.2 FT

Arrived at: 1030 PURGE VOLUME: 7.90 GALLONS

Initial PID = / [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = /

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1037		6.18	23.8°	0.12	28.5	300 (M.S. M.D.)	
1059	3	6.09	23.6°	0.11	5.36	300	30.30
1128	5	6.23	24.3°	0.12	1.07	300	30.25
1139	6	6.25	24.3	0.13	0.30	300	30.25
1150	7	6.25	24.3	0.12	0.03	300	30.25
1200	8	6.26	24.3	0.13	0.00	300	30.25

COMMENTS: SAMPLED @ 1200 *

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic	1	HNO3	6010B	Total Metals - TK Lou list
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION	
WEATHER:	
SHIPPED VIA:	FedEX
SHIPPED TO:	STL - North Canton, OH
SAMPLER:	OBSERVER:

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-14-A

Sample Time/Date Top of PDB (btoc) = 74.5' 950 5-5-04

Project Name TK Louisville

WELL MEASUREMENTS

Total Depth	88.7	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	64.13	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	—				
pH	—				
Conductivity (mhos)	—				
Turbidity (NTU)	7.35				
Volume (gal)	—				
Time	950				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-14-B

Sample Time/Date Top of PDB (btoc) = 79.5' 955 5-5-04

Project Name TK Louisville

WELL MEASUREMENTS

Total Depth	88.7	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	64.13	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	—				
pH	—				
Conductivity (mhos)	—				
Turbidity (NTU)	0.43				
Volume (gal)	—				
Time	955				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-14-C

Top of PDB (btoc) = 84.5'

Project Name TK Louisville Sample Time/Date 1000 5-5-04

WELL MEASUREMENTS

Total Depth	88.7	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	64.13	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	21.1				
pH	7.40				
Conductivity (mhos)	0.034				
Turbidity (NTU)	0.54				
Volume (gal)	—				
Time	1000				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-14 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1750

DUP./REP. OF: N/A DEPTH TO WATER: GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 86.5

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1750	PDB	4.55	26.2	0.00	0.00	N/A ( )	

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic (AG)	1 (AG)	HNO3 (AG)	6010B (AG)	Total Metals - TK Lou list (AG)
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER:	DAL	OBSERVER:	CAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-17-A

Top of PDB (btoc) = 36.4

Sample Time/Date 1630 5-4-04

Project Name TK Louisville

WELL MEASUREMENTS

Total Depth	50.5	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	11.64	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump see comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	19.7				
pH	4.67				
Conductivity (mhos)	0.046				
Turbidity (NTU)	1.1				
Volume (gal)	—				
Time	1630				

COMMENTS: SAMPLED USING PASSIVE DIFFUSION BAGS. VOCs ONLY.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-17-B

Top of PDB (bare) = 41.4

Sample Time/Date 1640 5-4-04

Project Name TK Louisville

WELL MEASUREMENTS

Total Depth	50.5	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	11.64	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump see Comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	20.3				
pH	4.66				
Conductivity (mhos)	0.25				
Turbidity (NTU)	1.4				
Volume (gal)	—				
Time	1640				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-17-C

Top of PDB(blue) = 46.4

Project Name TK Louisville Sample Time/Date 1645 5-4-04

WELL MEASUREMENTS

Total Depth	50.5 ft	Casing Diameter	— in	2" diam	=	0.163 gal/ft
Depth to Water	11.64 ft	Casing Volume	— gal	4" diam	=	0.653 gal/ft
Water Column	— ft	Purge Volume	— gal	1.25"diam.	=	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	19.2				
pH	4.57				
Conductivity (mhos)	0.08				
Turbidity (NTU)	0.65				
Volume (gal)	—				
Time	1645				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-17 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1710

DUP./REP. OF: N/A DEPTH TO WATER: 11.81 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 48.0 FT

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1710	PDB	4.46	23.4	0.00	0.00	N/A ( )	
COMMENTS:							

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic	1	HNO3	6010B	Total Metals - TK Lou list (DO)
1 L Plastic (DO)	1 (DO)	none (DO)	6010B (DO)	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: BAL		OBSERVER: CAS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050

Sampler SD/BK

Sample Location: MW-18-A

Top of PDB (Hoc) = 31.1

Project Name TK Louisville

Sample Time/Date 1700 5-4-04

WELL MEASUREMENTS

Total Depth	45.1	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	—	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	18.1				
pH	4.65				
Conductivity (mhos)	0.004				
Turbidity (NTU)	1.1				
Volume (gal)	—				
Time	1700				

COMMENTS: (3) VOCs sampled ~~by~~ using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-18-B

Top of PDB (btoc) = 36.1

Project Name TK Louisville Sample Time/Date 1710 5-4-04

WELL MEASUREMENTS

Total Depth	45.1	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	—	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump see comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	19.0				
pH	4.68				
Conductivity (mhos)	0.002				
Turbidity (NTU)	0.60				
Volume (gal)	—				
Time	1710				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-18-C

Top of PVC (btoc) = 41.1

Project Name TK Louisville Sample Time/Date 1720 5-4-04

WELL MEASUREMENTS

Total Depth	45.1	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	—	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	—				
pH	—				
Conductivity (mhos)	—				
Turbidity (NTU)	0.50				
Volume (gal)	—				
Time	1720				

COMMENTS: not enough water to take readings. (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-18 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1720

DUP./REP. OF: N/A DEPTH TO WATER: 5.70 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 42.5 FT

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1720	PDB	4.53	24.1	0.00	0.00	N/A ( )	
COMMENTS:							

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic	1	HNO3	6010B	Total Metals - TK Lou list
1 L Plastic (N)	1 (N)	none (N)	6010B (N)	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: DAL		OBSERVER: CAS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

DUP=V504-A
1200

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-19-A
Top of PPB (btoc)=39.9

Project Name TK Louisville Sample Time/Date 855 5-5-04

WELL MEASUREMENTS

Total Depth	49.0	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	32.15	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	—				
pH	—				
Conductivity (mhos)	—				
Turbidity (NTU)	0.00				
Volume (gal)	—				
Time	855				

COMMENTS: (3) VOCs sampled using passive diffusion bags. Only (2) VOC bottles collected, not enough water to take readings.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

DUP = 4504-B 1200

Project No. 12000-0-2050 Sampler SD|BK Sample Location: MW-19-B

Top of PDB (btoc) = 44.9

Project Name TK Louisville Sample Time/Date 910 5-5-04

WELL MEASUREMENTS

Total Depth	49.0	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	32.15	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump see comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	—				
pH	—				
Conductivity (mhos)	—				
Turbidity (NTU)	6.12				
Volume (gal)	—				
Time	910				

COMMENTS: 3 VOCs (3 DUPS) sampled using passive diffusion bags. Not enough water to take readings.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SP/BK Sample Location: MW-19

Project Name TK Louisville Sample Time/Date 1030 5-5-04

WELL MEASUREMENTS

Total Depth	49.0 ft	Casing Diameter	2" in	2" diam	=	0.163 gal/ft
Depth to Water	32.15 ft	Casing Volume	0.163 gal	4" diam	=	0.653 gal/ft
Water Column	16.85 ft	Purge Volume	8.23 gal	1.25"diam.	=	0.0637 gal/ft

PURGING METHOD

Pump grunfos

Teflon Bailer —

SAMPLING METHOD

Pump —

Teflon Bailer yes

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	19.8	21.6	21.3	21.5	21.4
pH	6.74	7.45	7.08	7.10	7.10
Conductivity (mhos)	0.340	0.251	0.237	0.240	0.240
Turbidity (NTU)	126	20.0	7.46	5.08	3.65
Volume (gal)	1.5	4	7	8	9
Time	940	955	1005	1012	1020
water level	33.3	33.2	34.2	34.5	34.6

COMMENTS: Total and Dissolved Metals samples taken after purge.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-19 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1740

DUP./REP. OF: N/A DEPTH TO WATER: 32.34 Ft GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 46.5 Ft

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1740	PDB	4.43	24.5	0.01	0.00	N/A ( )	
COMMENTS:							

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic (BW)	1 (BW)	HNO3 (BW)	6010B (BW)	Total Metals - TK Lou list (BW)
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	Overcast		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER:	DAL	OBSERVER:	CAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-19 DEPTH TO PRODUCT: N/A DATE: 10/13/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1400

DUP./REP. OF: N/A DEPTH TO WATER: 32.34 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 46.5 FT

Arrived at: 1400 PURGE VOLUME: 6.92 GALLONS

Initial PID = NA [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = NA

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1411		7.49	23.6	0.28	144	300 (min/max)	
1436	3	7.06	27.5	0.27	12.5	300	32.83
1450	5	6.96	27.3	0.25	5.3	300	32.83
1519	6	6.90	26.2	0.24	2.9	300	32.83
1525	7	6.90	26.1	0.24	1.3	300	32.83

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic	1	HNO3	6010B	Total Metals - TK Lou list
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION		
WEATHER:		
SHIPPED VIA:	FedEX	
SHIPPED TO:	STL - North Canton, OH	
SAMPLER:		OBSERVER:

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-20-A

Top of PDB (btoc) = 92.6

Project Name TK Louisville Sample Time/Date 830 5-6-04

WELL MEASUREMENTS

Total Depth	106.8	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	79.53	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	20.5				
pH	4.74				
Conductivity (mhos)	0.063				
Turbidity (NTU)	0.04				
Volume (gal)	—				
Time	830				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD|BK Sample Location: MW-20-B

Top of PDB(btoc) = 97.6

Project Name TK Louisville Sample Time/Date 835 5-6-04

WELL MEASUREMENTS

Total Depth	106.8	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	79.53	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	20.1				
pH	4.60				
Conductivity (mhos)	0.041				
Turbidity (NTU)	0.04				
Volume (gal)	—				
Time	835				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SP|BK Sample Location: MW-20-C

Top of PDB (btoc) = 102.6

Project Name TK Louisville Sample Time/Date 840 5-6-04

WELL MEASUREMENTS

Total Depth	106.8	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	79.53	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump see comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	20.0				
pH	4.82				
Conductivity (mhos)	0.023				
Turbidity (NTU)	0.23				
Volume (gal)	—				
Time	840				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-20 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR (PDB) (circle one method) TIME: N/A

DUP./REP. OF: N/A DEPTH TO WATER: 79.67 ft GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 107.0 ft

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:	PDB					N/A ( )	

COMMENTS: * PDB BAG IS STUCK IN WELL. ALL ATTEMPTS TO RETRIEVE BAG FAILED. NO SAMPLE TAKEN.

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic (SC)	1 (SC)	HNO3 (SC)	6010B (SC)	Total Metals - TK Lou list (SC)
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER:	BAC	OBSERVER:	CAS

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-20 DEPTH TO PRODUCT: N/A DATE: 10/26/04

SAMPLE METHOD: (Low Flow/Low Stress & Bailer ~~OR PDB~~ *(circle one method)* TIME: 1545

DUP./REP. OF: N/A DEPTH TO WATER: 80.11 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 108.90 FT

Arrived at: 1435 PURGE VOLUME: 14 GALLONS

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1445		7.12	21.9	0.32	90	600 (198.2)	
1505	5	7.12	23.7	0.36	14	900 (199.3)	80.53
1525	10	7.12	23.7	0.36	2.4	900 (199.3)	80.55
1530	12	7.11	23.7	0.36	2.0	900 (199.3)	80.56
1535	13	7.12	23.8	0.36	2.1	900 (199.3)	80.56
1540	14	7.12	23.7	0.33	1.8	900 (199.3)	80.57

COMMENTS: SAMPLE TIME: 1545

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
1 L Plastic	1	HNO3	6010B	~~Total Metals - TK Lou list~~
1 L Plastic	~~1~~	~~none~~	6010B	~~Dissolved Metals - TK Lou list~~

GENERAL INFORMATION			
WEATHER:	Cloudy / overcast		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: BAL		OBSERVER: JLS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SDJBK Sample Location: MW-21-A

Top of PDB (btoc) = 90.7

Project Name TK Louisville Sample Time/Date 850 5-7-04

WELL MEASUREMENTS

Total Depth	104.9	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	74.85	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump see comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	20.9				
pH	5.15				
Conductivity (mhos)	0.039				
Turbidity (NTU)	0.00				
Volume (gal)	—				
Time	850				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-6-2050 Sampler SD/BK Sample Location: MW-21-B

Top of PDB(blue) = 95.7

Sample Time/Date 855 5-7-04

Project Name TK Louisville

WELL MEASUREMENTS

Total Depth	104.9 ft	Casing Diameter	— in	2" diam	=	0.163 gal/ft
Depth to Water	74.85 ft	Casing Volume	— gal	4" diam	=	0.653 gal/ft
Water Column	— ft	Purge Volume	— gal	1.25"diam.	=	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	20.7				
pH	4.49				
Conductivity (mhos)	0.034				
Turbidity (NTU)	0.00				
Volume (gal)	—				
Time	855				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-21-C

Top of PDB (btoc) = 100.7

Project Name TK Louisville Sample Time/Date 900 5-7-04

WELL MEASUREMENTS

Total Depth	104.9	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	74.85	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	20.9				
pH	4.65				
Conductivity (mhos)	0.022				
Turbidity (NTU)	0.00				
Volume (gal)	—				
Time	900				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-21 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR (PDB) *(circle one method)* TIME: 1500

DUP./REP. OF: N/A DEPTH TO WATER: 76.19 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 105.2 FT

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1500	PDB	4.30	24.9°C	0.00	0.87	N/A ( )	
COMMENTS:							

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
(40 mL)	(3)	(HCL to pH<2)	(8260B)	(Volatiles - TK Lou list)
1 L Plastic	1	HNO3 (pH)	6010B (B2)	Total Metals - TK Lou list (B2)
1 L Plastic (B2)	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: BAV		OBSERVER: CAS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-6-2050 Sampler SD/BK Sample Location: MW-22-A

Top of PDB (btoc) = 100.0

Project Name TK Louisville Sample Time/Date 1440 5-5-04

WELL MEASUREMENTS

Total Depth	114.2	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	88.9	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	—				
pH	—				
Conductivity (mhos)	—				
Turbidity (NTU)	0.32				
Volume (gal)	—				
Time	1440				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: 1 MW-22-B

Top of PDB (btoc) = 105.0

Project Name TK Louisville Sample Time/Date 1500 5-5-04

WELL MEASUREMENTS

Total Depth	114.2	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	88.9	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	20.9				
pH	7.9				
Conductivity (mhos)	0.012				
Turbidity (NTU)	0.21				
Volume (gal)	—				
Time	1500				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2090 Sampler SD|BK Sample Location: MW-22-C

Top of PDB (btoc) = 110.0

Sample Time/Date 1505 5-5-04

Project Name TK Louisville

WELL MEASUREMENTS

Total Depth	114.2	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	88.9	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See Comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	21.6				
pH	6.32				
Conductivity (mhos)	0.012				
Turbidity (NTU)	0.14				
Volume (gal)	—				
Time	1505				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-22 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR (PDB) *(circle one method)* TIME: 1535

DUP./REP. OF: N/A DEPTH TO WATER: 89.33 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 114.4 FT

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1535	POOL	5.43	23.5	0.01	0.10	N/A ( )	

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
(40 mL)	(3)	(HCL to pH<2)	(8260B)	(Volatiles - TK Lou list)
1 L Plastic (50)	1 (50)	HNO3 (50)	6010B (50)	Total Metals - TK Lou list (50)
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: BAL		OBSERVER: CAS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-23-A

Top of PDB (btoc) = 92.1

Sample Time/Date 5-05-04 ~~MW-23-A~~ 2-14-05

Project Name TK Louisville

WELL MEASUREMENTS

Total Depth	106.2	ft	Casing Diameter	—	in	2" diam =	0.163 gal/ft
Depth to Water	73.35	ft	Casing Volume	—	gal	4" diam =	0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam. =	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	—				
pH	—				
Conductivity (mhos)	—				
Turbidity (NTU)	0.36				
Volume (gal)	—				
Time	1600				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By:

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-0-2050 Sampler SD/BK Sample Location: MW-23-B

Sample Top of PDB (btoc) = 97.1

Project Name TK Louisville Time/Date 1605 5-5-04

WELL MEASUREMENTS

Total Depth	106.2	ft	Casing Diameter	—	in	2" diam	= 0.163 gal/ft
Depth to Water	73.35	ft	Casing Volume	—	gal	4" diam	= 0.653 gal/ft
Water Column	—	ft	Purge Volume	—	gal	1.25"diam.	= 0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	25.0				
pH	6.70				
Conductivity (mhos)	0.042				
Turbidity (NTU)	0.36				
Volume (gal)	—				
Time	1605				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By: _____

MACTEC

WATER SAMPLING DATA FORM

Thermo King, Louisville, GA

Project No. 12000-C-2050 Sampler SD/BK Sample Location: MW-23-C

Top of PDB (btoc) = 102.1

Project Name TK Louisville Sample Time/Date 1610 5-5-04

WELL MEASUREMENTS

Total Depth	106.2 ft	Casing Diameter	— in	2" diam	=	0.163 gal/ft
Depth to Water	73.35 ft	Casing Volume	— gal	4" diam	=	0.653 gal/ft
Water Column	— ft	Purge Volume	— gal	1.25"diam.	=	0.0637 gal/ft

PURGING METHOD

Pump —

Teflon Bailer —

SAMPLING METHOD

Pump See comments

Teflon Bailer —

WATER PARAMETERS

	Initial	Purging	Purging	Purging	Final
Temperature (°C)	—				
pH	—				
Conductivity (mhos)	—				
Turbidity (NTU)	0.00				
Volume (gal)	—				
Time	1610				

COMMENTS: (3) VOCs sampled using passive diffusion bags.

Reviewed By:

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-23 DEPTH TO PRODUCT: N/A DATE: 10/12/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR (PDB) *(circle one method)* TIME: 1600

DUP./REP. OF: N/A DEPTH TO WATER: 78.80 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 106.5 FT

Arrived at: N/A PURGE VOLUME: N/A

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1600	PDB	6.18	23.7	0.01	0.22	N/A ( )	

COMMENTS:

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
(40 mL)	(3)	(HCL to pH<2)	(8260B)	(Volatiles - TK Lou list)
1 L Plastic (NW)	1 (MW)	HNO3 (NP)	6010B (TM)	Total Metals - TK Lou list (NP)
1 L Plastic	1	none	6010B	Dissolved Metals - TK Lou list

GENERAL INFORMATION			
WEATHER:	OVERCAST		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: BAC		OBSERVER: CAS	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050.409

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-24 DEPTH TO PRODUCT: no product DATE: 10-12-04

SAMPLE METHOD: Purged using Low Flow/Low Stress & sampled with Bailer TIME: 10:30-3:30

DUP./REP. OF: DUP/012 DEPTH TO WATER: 86.80 btoc (temp) GRAB (x) COMPOSITE ( )

duplicate of MW-24 TOTAL DEPTH: 149.85 bgs

Arrived at: 8:14 PURGE VOLUME: 115 gals ~~total~~ removed 80.5 purged for Sampling

Initial PID = [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID =

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 11:18		7.27	25.5	0.31	298	225 (Hz)	91.50
11:44	8.8	7.14	23.7	0.35	323		91.50
12:05	15.9	7.15	24.5	0.37	0.22		91.23
12:35	26	7.15	24.3	0.37	0		91.35
13:05	36.3	7.17	24.4	0.37	0		91.15
13:51	52	7.10	24.5	0.37	0		91.57
14:38	68	7.06	24.7	0.37	0		91.33
15:15	80.5	7.14	24.2	0.37	0	↓	91.13

COMMENTS: Water begins as white cloudy and clears after 15 gals Pump position at about 96-95 ft btoc. Water Sample collected w/ disposable teflon bailer from screen interval of well at 137-147 ft.

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Louisville List

GENERAL INFORMATION			
WEATHER:	Morning: Cloudy light fog becoming ptly cloudy hot becoming cloudy + breezy		
SHIPPED VIA:	FedEx overnight		
SHIPPED TO:	STL-North Canton, North Canton, OH		
SAMPLER:	RNQ	OBSERVER:	RNQ

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 12000-0-2050

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-24 DEPTH TO PRODUCT: N/A DATE: 10/28/04

SAMPLE METHOD: Low Flow/Low Stress & Bailer OR PDB *(circle one method)* TIME: 1420

DUP./REP. OF: N/A DEPTH TO WATER: 86.67 FT GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 151.85 FT

Arrived at: 1205 PURGE VOLUME: 32 GALLONS

Initial PID = N/A [0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (ms/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1220		7.07	21.5	0.29	3.7	1800 (217.3)	
1250	10	7.02	22.7	0.27	5.7	750 (208.3)	88.91
1330	20	7.05	22.8	0.30	0.90	900 (208.3)	89.02
1350	25	7.10	22.7	0.30	0.75	900 (208.3)	89.05
1405	30	7.19	22.9	0.29	0.30	900 (208.3)	89.00
1410	31	7.12	22.8	0.30	0.25	900 (208.3)	89.03
1415	32	7.12	22.8	0.30	0.25	900 (208.3)	89.04

COMMENTS: SAMPLE TIME: 1420

(CIRCLE ANALYSES TO BE PERFORMED)

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	Volatiles - TK Lou list
~~1 L Plastic~~	~~1~~	~~HNO3~~	~~6010B~~	~~Total Metals - TK Lou list~~ (BK)
1 L Plastic	1	none	6010B	~~Dissolved Metals - TK Lou list~~
				VOCs ONLY

GENERAL INFORMATION			
WEATHER:	DRIZZLE / FOGGY		
SHIPPED VIA:	FedEX		
SHIPPED TO:	STL - North Canton, OH		
SAMPLER: BAL		OBSERVER: JLS	

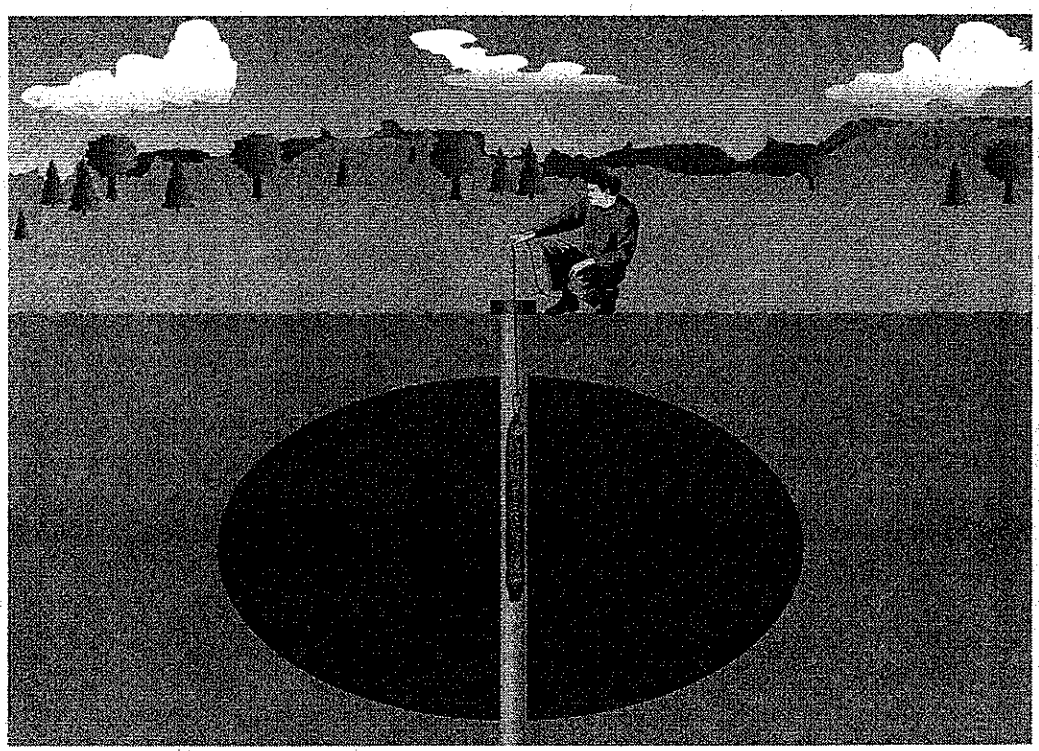
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.367 x water column height (ft) x 3 (well volumes) for 3" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

ATTACHMENT 3

ITRC GUIDANCE DOCUMENT FOR PASSIVE DIFFUSION BAG SAMPLES

Technical/Regulatory Guidelines

Technical and Regulatory Guidance for Using Polyethylene Diffusion Bag Samplers to Monitor Volatile Organic Compounds in Groundwater



February 2004

Prepared by
Interstate Technology & Regulatory Council
Diffusion Sampler Team

ABOUT ITRC

Established in 1995, the Interstate Technology & Regulatory Council (ITRC) is a state-led, national coalition of personnel from the environmental regulatory agencies of some 40 states and the District of Columbia; three federal agencies; tribes; and public and industry stakeholders. The organization is devoted to reducing barriers to, and speeding interstate deployment of, better, more cost-effective, innovative environmental techniques. ITRC operates as a committee of the Environmental Research Institute of the States (ERIS), a Section 501(c)(3) public charity that supports the Environmental Council of the States (ECOS) through its educational and research activities aimed at improving the environment in the United States and providing a forum for state environmental policy makers. More information about ITRC and its available products and services can be found on the Internet at www.itrcweb.org.

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Technical and Regulatory Guidance for Using Polyethylene Diffusion Bag Samplers to Monitor Volatile Organic Compounds in Groundwater

February 2004

Prepared by
The Interstate Technology & Regulatory Council
Diffusion Sampler Team

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Mark Malinowski, California Department of Toxic Substances Control
George Nicholas (Team Leader), New Jersey Department of Environmental Protection
Hugh Rieck, Arizona Department of Environmental Quality
James Taylor, California Regional Water Quality Control Board

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EXECUTIVE SUMMARY

Polyethylene diffusion bag (PDB) samplers are low-density polyethylene bags containing deionized water, used to collect water samples in groundwater wells for laboratory analyses of volatile organic compounds (VOCs). PDB samplers are passive devices, relying on the movement of groundwater from the aquifer or water-bearing zone through the screen or open interval of a well. VOCs in groundwater diffuse across the bag material until concentrations within the bag reach equilibrium with those in the surrounding groundwater. The technical basis for use of PDB samplers is presented in the U.S. Geological Survey Water Resources Investigations Report *User's Guide for Polyethylene-Based Passive Diffusion Bag Samplers to Obtain Volatile Organic Compound Concentrations in Wells* (Vroblesky 2001a, 2001b). The document in hand should be used in conjunction with the technical guidance in that report.

PDB samplers cannot be used to sample for all contaminants; metals and other inorganic compounds will not diffuse across the membrane. However, many VOCs have shown good diffusion characteristics in laboratory tests and are recommended for sampling with PDBs. For these common contaminants (listed in Section 1), PDB sampling is as valid as low-flow and other conventional methodologies and is often substantially less expensive over the life of a long-term monitoring (LTM) program. Cost savings in the range of 40%–70% have been achieved by replacing other sampling methods with PDB sampling. PDB samplers can also be an effective tool to characterize vertical VOC stratification in the screened or open intervals of wells and have been used to identify and delineate groundwater flow into surface waters.

This document provides a guide for regulators, technology users, and stakeholders to facilitate the use of PDB sampling, particularly for LTM. The technical guidelines for implementation in Section 2 are a consensus of the Interstate Technology & Regulatory Council (ITRC) Diffusion Sampler Team, which includes participants from nine different state regulatory agencies, as well as representatives from federal agencies, academia, and the private sector. Section 3 contains a set of sequenced questions to provide a quick preliminary screening of a site's potential for PDB sampling. Section 4 discusses regulatory issues related to PDB use, considers potential regulatory impediments to the implementation of PDB sampling, provides suggestions for expediting the process, and reports on a survey of state regulators' acceptance of the technology. No regulatory issues were identified that would restrict the application of PDBs in technically appropriate situations. The final sections provide a cost model to estimate the potential savings associated with conversion to PDB monitoring and present some case histories of the technology's implementation.

Groundwater sampling is performed to collect a sample that is representative of conditions in the aquifer. Inherent differences between various sampling techniques may produce results that generate different representations of the aquifer, but no single sampling technique is the correct methodology—each has advantages and limitations. It is important to understand the conceptual basis and differences in sampling techniques when interpreting sampling results. PDBs may indicate contaminant concentrations higher or lower than those indicated using other sample collection methods. Therefore, it is essential that all parties involved in the implementation of PDBs for LTM at regulated sites identify and agree on data quality objectives (DQOs), data evaluation techniques, and data end use before actual PDB deployment takes place.

Regulatory guidance documents and permits, consent orders, other agreements, and sampling and analysis plans may specify or state a preference for a specific sampling methodology. Discussions with regulators should be held before deciding to deploy PDB samplers to determine whether alternative technologies will be acceptable. Negotiations may be needed to modify or amend permits, orders, and sampling plans; in some instances, public meetings may be required. Side-by-side comparisons of sampling technologies may be necessary to establish the applicability of PDB sampling to a well; however, for wells where there has historically been little variation in contaminant concentration and groundwater elevation, comparison of PDB sampler results to the historical record may provide enough information to determine whether PDB sampling is appropriate.

Potential vertical variations in VOC concentrations (stratification) should be considered when determining placement of PDBs in a well for LTM. The deployment of a single PDB sampler should include consideration of site-specific DQOs. Deployment of a single PDB may or may not be at the depth with the highest contaminant concentration. Reprofiling wells or changing the vertical location of an established PDB monitoring point is not necessary unless evidence suggests that there have been changes in contaminant transport, hydrodynamics, or well characteristics since the initial profile was obtained. The recommended minimum equilibration period for PDBs is two weeks for water temperatures above 10°C. No maximum deployment period has been identified, but PDBs have been successfully left in wells for three months and longer. Concentrations of VOCs in the PDB reflect the aquifer conditions one to four days prior to the recovery of the PDB.

In general, when PDBs are used to investigate vertical concentration stratification, an 18-inch-long PDB should represent no more than 5 feet of a saturated screened interval or borehole. PDB sampling may be used for compliance purposes, including sentinel well monitoring and site closeout. If PDBs are used in sentinel wells with saturated screen or borehole lengths greater than 5 feet, multiple PDB monitoring points are recommended.

The ITRC Diffusion Sampler Team conducted a survey of state regulators in May 2003, primarily to identify any rules or regulations that would impede the implementation of PDB sampling. None were identified. The survey also sought the regulators' familiarity with PDBs and their views on specific applications for the technology. Based on the 54 responses received from 23 states, there is widespread regulatory support for using PDB sampling technology, particularly for LTM. Acceptance has been gained as more professionals become aware of its advantages. At the same time, awareness of its limitations justifiably results in "conditional" approval by many regulators. The application of PDBs should always be governed by site characteristics and DQOs.

This guidance document will help reduce regulatory barriers to the implementation of PDB sampling by educating regulators on the correct use, applications, and limitations of the technology; discussing issues of common concern to regulators; and providing tools (e.g., the decision tree and cost model) to aid in evaluating the potential for PDB sampling at a site.

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TECHNICAL AND REGULATORY GUIDANCE FOR USING POLYETHYLENE DIFFUSION BAG SAMPLERS TO MONITOR VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

1. INTRODUCTION

This document provides a guide for regulators, technical and field personnel, and stakeholders to facilitate the use and implementation of polyethylene diffusion bag (PDB) sampling, particularly for long-term monitoring (LTM). The technical guidelines presented in Section 2 represent a consensus of the Interstate Technology & Regulatory Council (ITRC) Diffusion Sampler Team, which includes participants from nine different state regulatory agencies, as well as representatives from federal agencies, academia, and the private sector. This document also discusses the regulatory issues related to PDB use, considers potential regulatory impediments to the implementation of PDB sampling, and provides suggestions as to how the process might be expedited. Also included are a "decision tree" to provide a quick preliminary screening of site potential for PDB monitoring, a cost model to estimate the potential savings associated with conversion to PDB monitoring, and some case histories involving implementation of this technology. Although diffusion samplers can have membranes composed of various materials, this discussion is limited to the use of low-density polyethylene (LDPE) bags filled with deionized water and used for specific volatile organic compounds (VOCs).

The technical basis for use of PDB samplers is presented in the two-part U.S. Geological Survey (USGS) Water Resources Investigations Report 01-4060, *User's Guide for Polyethylene-Based Passive Diffusion Bag Samplers to Obtain Volatile Organic Compound Concentrations in Wells* (Vroblesky 2001a, 2001b). The document in hand should be used in conjunction with the technical guidance in the *User's Guide,* which is also available through the ITRC Web site (http://www.itrcweb.org) as a single volume.

1.1 Description

PDB samplers, which are LDPE bags containing deionized water, are used to collect water samples for laboratory analyses of VOCs. In groundwater wells, PDB samplers act as passive devices, relying on the ambient movement of groundwater from the aquifer or water-bearing zone through the well screen (for a detailed example demonstration of ambient flow-through, see Robin and Gillham 1987). VOCs in groundwater diffuse across the bag material until constituent concentrations within the bag reach equilibrium with concentrations in the surrounding groundwater.

PDB samplers are made of LDPE plastic (typically 4 mils thick) in the shape of a tube, filled with deionized water, and sealed at both ends (Figure 1-1). The samplers are typically about 18–20 inches in length and 1.25 inches in diameter; they hold 220–350 mL of water. Vendors can modify the length and diameter of a sampler to meet specific sampling requirements, and bags can be filled in the field or ordered prefilled. The PDB shown in Figure 1-1 has a plastic mesh sock surrounding the PDB to protect it against physical damage during deployment and recovery. A list of vendors for PDB samplers can be found online at ITRC's Diffusion Sampler Information Center (DSIC) Web site (http://ds.itrcweb.org).

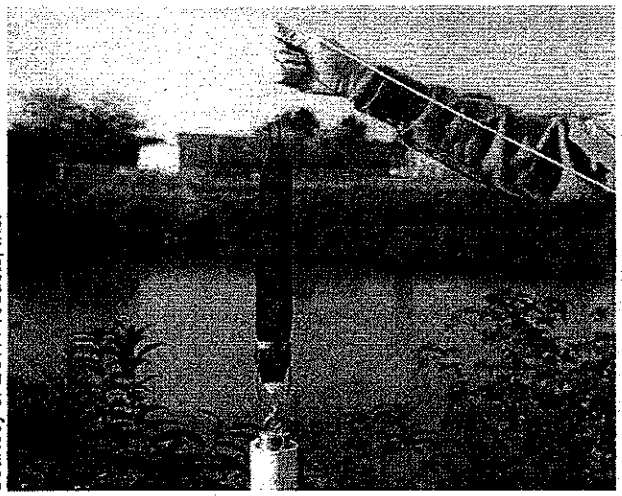

Courtesy of EON Products, Inc.

Figure 1-1. PDB sampler ready for deployment.

1.2 Uses, Limitations, and Application

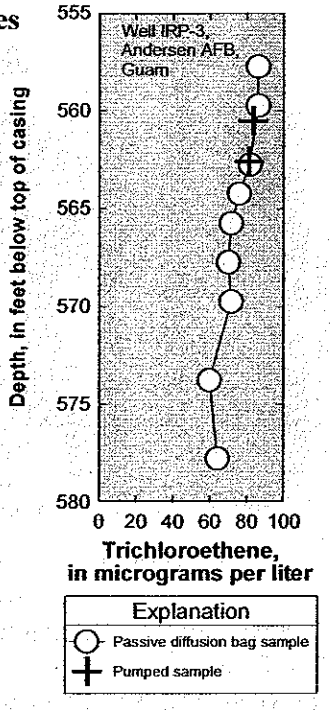
Many VOCs have shown good diffusion characteristics in laboratory tests using PDBs submerged and equilibrated with known concentrations of selected VOCs (Table 1-1). PDB samplers have also been successfully used at a variety of field sites (Vroblesky and Hyde 1997, Parsons 1999, Church 2000, Hare 2000, McClellan 2000, Vroblesky et al. 2000, Vroblesky and Peters 2000, Vroblesky and Petkewich 2000). Other PDB sampler field studies (Parsons 2003) suggest that PDBs can be suitable for analytes beyond those listed in Table 1-1. These laboratory and field studies demonstrate the PDB sampler is an appropriate sampling technology for many VOC contaminants in groundwater. However, PDB samplers cannot be used to sample for all contaminants. For example, metals and other inorganic compounds will not diffuse across the LDPE membrane. PDBs should not be used to sample for contaminants that have not been shown to diffuse across the sampler membrane. It has also been observed that site- or well-specific conditions can adversely affect PDB performance for some analytes that performed well in laboratory testing. Section 2 discusses in detail factors that should be considered when evaluating the applicability of PDB sampling at a site.

Table 1-1. Compounds tested in the laboratory (Vroblesky 2001a)

Favorable laboratory diffusion testing results		
Benzene	1,3-Dichlorobenzene	Naphthalene
Bromodichloromethane	1,4-Dichlorobenzene	1,1,2,2-Tetrachloroethane
Bromoform	Dichlorodifluoromethane	Tetrachloroethene (PCE)
Chlorobenzene	1,2-Dichloroethane	Toluene
Carbon tetrachloride	1,1-Dichloroethene	1,1,1-Trichloroethane
Chloroethane	*cis*-1,2-Dichloroethene	1,1,2-Trichloroethane
Chloroform	*trans*-1,2-Dichloroethene	Trichloroethene (TCE)
Chloromethane	1,2-Dichloropropane	Trichlorofluoromethane
2-Chlorovinylether	*cis*-Dichloropropene	1,2,3-Trichloropropane
Dibromochloromethane	1,2-Dibromoethane	Vinyl chloride
Dibromomethane	*trans*-1,3-Dichloropropene	Xylenes (total)
1,2-Dichlorobenzene	Ethyl benzene	
Unfavorable laboratory diffusion testing results		
Acetone	Methyl *tert*-butyl ether	
Methyl *iso*-butyl ketone	Styrene	

The potential for in-well flow and mixing should be considered when implementing passive sampling techniques. In some wells, vertical uniformity in VOC concentrations is observed in the screened interval of under field conditions. Figure 1-2 shows relatively uniform

Figure 1-2. (right) Comparison of diffusion and pumped samples in groundwater showing relative uniformity in vertical distribution of trichloroethene concentrations in the screened interval of a well (modified from Vroblesky et al. 2003).



concentrations in a well where vertical flow was present in the screen. In addition, observations from a laboratory study using a sand-tank model in approximately two dimensions (Britt and Tunks 2003) imply that diffusive mixing may be an important consideration. In other wells, however, stratification in well screens is observed under natural conditions (Figure 1-3). The source of this stratification may include such factors as vertical differences in contaminant concentrations outside the well screen, vertical flow through a portion of the well screen, density contrasts, and, in wells screened at the water table, volatilization loss at the air/water interface.

Multiple PDBs deployed along the saturated screened interval or open borehole of a well can provide information on the vertical distribution of contaminants within the well (Figure 1-3). When the stratification reflects aquifer stratification or zones of inflowing

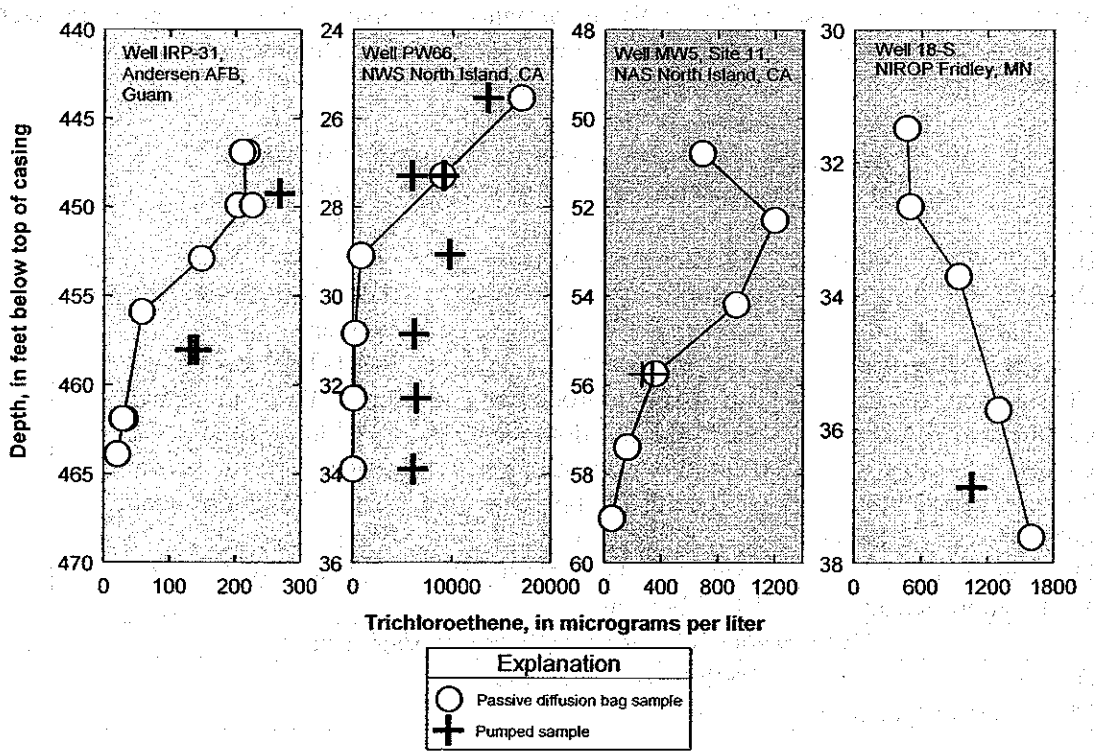


Figure 1-3. Comparison of diffusion and pumped samples in groundwater showing vertical stratification of trichloroethene in the screened interval (modified from Vroblesky and Peters 2000, Vroblesky and Petkewich 2000, Vroblesky et al. 2003).

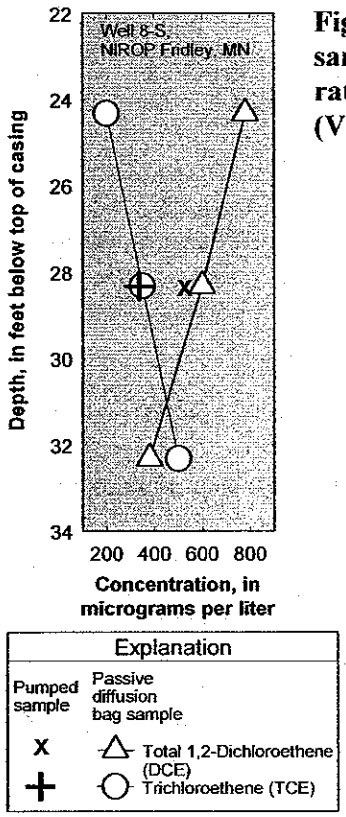


Figure 1-4. (at left) Comparison of diffusion and pumped samples in groundwater showing an apparent shift in TCE/DCE ratio between the top and bottom of the screened interval (Vroblesky and Petkewich 2000).

contamination, the information can assist in locating the zones of highest concentrations. In some cases, the data may provide information on zones of differing biodegradation potential, as implied by the change in the concentrations of the parent compound trichloroethene (TCE) to daughter products, such as 1,2-dichloroethene, across the screened interval shown in Figure 1-4. Determining the vertical distribution of contaminants also is useful when refining a conceptual site model, modeling contaminant fate and transport, defining source areas for treatment, or optimizing remedial system performance. However, this document focuses on the use of PDBs for LTM.

1.3 Differences between PDB Sampling and Other Sampling Methods

The goal of groundwater sampling is to collect a sample from the aquifer that meets data quality objectives (DQOs). Many factors, including hydrogeology and well construction, can affect groundwater sample composition. However, even when monitoring wells are properly constructed and the hydrogeology and flow regimes are understood, inherent differences in sampling techniques may produce results that generate different representations of the aquifer. No single sampling technique is the correct methodology—each has advantages and limitations. It is important to understand the conceptual bases of and differences between sampling techniques when interpreting sampling results.

1.3.1 Well-Purge Sampling

Well-purge sampling removes multiple well volumes of water prior to sample collection. Purge stabilization parameters—including pH, temperature, and electrical conductivity (EC)—are typically, but not always, measured after each well volume to monitor purge water stabilization. If a flow-through cell is used, dissolved oxygen and oxidation-reduction potential (ORP) can also be measured. Well-purge sampling is sometimes referred to as "conventional" sampling because it has been the approach most widely employed over the past decades. In theory, this technique removes stagnant well water and brings fresh water into the well from the adjacent aquifer formation(s), thus providing a flow-weighted sample of the aquifer adjacent to the entire well screen interval or open borehole. In some instances, well-purge sampling produces samples of high turbidity that may affect sample results. The relatively high degree of pumping stress associated with well-purge sampling mixes contaminant concentrations from various contributing zones and can induce movement of contaminants into the well from zones not adjacent to the well screen. Depending on the amount of water in the well, this method can generate a large volume of purge water requiring disposal, sometimes at great expense.

1.3.2 Low-Flow Sampling

Low-flow purge and sample methods were developed to minimize disturbance of the groundwater system and reduce turbidity in samples. For the low-flow method, completion of purging is based on monitoring stabilization parameters rather than on a strict well-volume prescription. Purge stabilization parameters can include temperature, pH, EC, dissolved oxygen, ORP, and turbidity (Puls and Barcelona 1996). Once some or all of these parameters have stabilized within preset criteria, sampling may commence from the pump discharge stream. Because total purge volumes may be one well volume or less in many circumstances, low-flow sampling greatly reduces the volume of water requiring disposal or treatment compared to well-purge sampling.

The dynamics of low-flow sampling is a subject of continuing study. A low-flow sample may represent a localized volume of water near the pump intake, or it may represent a flow-weighted average of the entire screen length, depending on the volume pumped. Varljen et al. (2004) suggest that low-flow purging generates inflow along the entire well screen, regardless of purge rate or pump location—indicating a flow-weighted averaging effect using common purging or low-flow techniques. Martin-Hayden (2000), however, shows that water from distant portions of a well may require relatively long purging periods to reach the pump intake. The Martin-Hayden study concluded the greatest deviation from the flow-weighted average during purging occurs during the first well volume pumped. This study also showed that in a highly stratified aquifer and unfavorable pump placement, achieving concentrations within 5% of the flow-weighted average may not occur until five well volumes are pumped.

Situations such as this do not mean that low-flow purging would not generate a sample that meets DQOs, but stabilization criteria may not be met until a flow-weighted average is achieved. Thus, purge completion criteria stabilization is critical to ensure that the flow-weighted average concentration of the contaminants is truly achieved.

1.3.3 PDB Sampling

PDB samplers rely on the passive movement of groundwater through the well and the diffusive properties of VOCs and the sampler membrane. During deployment, groundwater VOCs equilibrate with water inside the PDB sampler. PDB samples are not turbid because the membrane, having a pore size of 10 angstroms, excludes colloid-size particles. Because it can take several days for the concentrations in the PDB sampler to equilibrate with groundwater contaminant concentrations, the sample represents a time-weighted contaminant concentration, with emphasis on the last few days prior to recovery. In the absence of vertical flow or other significant mixing within the well, a PDB sample probably represents water in close proximity to the sampler deployment position and may not detect contaminants migrating through the aquifer above or below the sampler position. If head-driven vertical flow exists in the well, Church and Granato (1996) show that water in the well is dominated by water from the zone with the highest hydraulic head. PDB samples in this scenario therefore represent groundwater from the zone of highest hydraulic head. If density-driven or diffusive mixing is dominant in the well, a PDB sample represents something close to a flow-weighted average concentration of the well screen (Britt and Tunks 2003).

Table 1-2 provides a brief qualitative summary of the spatial and temporal representation of three sampling methods. PDB results may not be identical to the results from well-purge or low-flow sampling, but this possibility does not necessarily mean that PDBs are inappropriate for the intended application. Poor correlation between sampling methods simply means that additional work needs to be done to determine and understand the causes. Comparing PDB results with those from other sampling methods is discussed in Section 4.2.

Table 1-2. Generalized spatial and time domains represented by three groundwater sampling methods

Sampling method	Spatial representation of sample	Temporal representation of sample
Multiple casing-volume purge	A single sample represents a flow-weighted average concentration of water brought to the well during purging. The sample potentially includes water from above or below the screen interval and artifacts from induced mobilization of contaminants from high-flow-rate pumping.	Instantaneous
Low flow	A low-flow sample represents a portion of the screen interval that can vary depending on several factors, including natural flow-through and mixing conditions in the well prior to purging, pump placement, and duration of purging relative to vertical lithologic heterogeneity and contaminant distributions. As the pumping duration increases and the monitored purge parameters approach stabilization, low-flow samples tend to approach a flow-weighted average that may be independent of pump depth.	Instantaneous
PDB	A PDB sample represents groundwater in contact with the sampler membrane, which depends on several factors, including natural flow-through and mixing conditions in the well, lithologic heterogeneity, and vertical contaminant distributions. A PDB sample can represent a mixing of the entire screen length or a more discrete interval of the well, depending on these factors. If head-driven vertical flow along the well screen is present, then the sample concentration is largely influenced by concentrations from the principal inflow sources (i.e., zones of high head).	Time-weighted average, estimated to encompass 1–4 days prior to recovery

The materials and procedures used in PDB sampling are common to groundwater monitoring and do not entail any unusual health and safety issues. However, as with any monitoring regimen, PDB deployment and recovery should comply with an approved, site-specific health and safety plan.

1.4 Diffusion Sampler Information Center

The DSIC Web site (http://ds.itrcweb.org) is maintained by the ITRC Diffusion Sampler Team to provide a centralized location for posting and exchanging information on the development and

use of diffusion samplers. The Diffusion Sampler Team includes representatives from the U.S. Air Force, U.S. Navy, U.S. Environmental Protection Agency (EPA), USGS, U.S. Army Corps of Engineers, private industry, and multiple state agencies. Although some ITRC teams have public stakeholders as team members, the Diffusion Sampler Team has not attracted this interest. The team works to compile, analyze, and disseminate information on the deployment of PDB samplers on a national basis. Site users can access a current listing of deployments nationwide, news updates, and basic information on PDB sampling. The DSIC also provides technical and information reports on diffusion sampler technology, current information on diffusion sampler training, and links to other useful information sources.

2. TECHNICAL REQUIREMENTS FOR IMPLEMENTATION

When using PDB samplers, it is important to consider DQOs, target analytes, and hydrologic concerns. It is the consensus of the Diffusion Sampler Team that PDB sampler technology has been validated. Nonetheless, the application of the technology, as influenced by the above factors, must be evaluated.

2.1 Data Quality Objectives

The decision to use PDBs must start with a review of DQOs. Each of the groundwater sampling techniques characterizes the aquifer in a different manner. With any sampling method, site-specific DQOs should first be established and then used to determine which sampling method best meets them. A general DQO—such as "collection of a representative sample"—should be refined if more specific sampling is required. An explanation of the DQO process as it is used by the Department of Energy (DOE) may be found online at http://dqo.pnl.gov/why.htm.

2.2 Target Analytes

Because PDBs depend on diffusion through the polyethylene membrane to collect analytes, the ability of a target compound to readily diffuse into the PDB sampler is essential. Because most non-VOCs will not meet this criterion, PDB samplers should be used for sampling only VOCs and a few other chlorinated and aromatic compounds (Section 1.1, Table 1-1 and Section 4.2.2, Table 4-1). PDBs are generally used for LTM only after a site has been fully characterized using other groundwater sampling methods and there are sufficient data to demonstrate that specific VOCs are the only analytes of concern or when there is sufficient site knowledge to determine that VOCs are the only possible target analytes.

While most VOCs diffuse well through polyethylene, some do not or have not been adequately tested; the latter are not recommended for PDB sampling at this time. Table 4-1 lists compounds that have been investigated in field tests. Reports found on the DSIC may provide additional information on the suitability of PDB samplers for other compounds, but further laboratory or field studies are necessary before PDB samplers can be recommended for compounds not listed in Table 1-1 or 4-1.

2.3 Deployment Time Intervals

Many VOCs equilibrate with PDB sampler water within one to four days at temperatures of 10°C and above, but some require longer periods, up to six days (Vroblesky and Campbell 2001). The recommended minimum deployment period for PDBs is two weeks, which allows ample time prior to retrieval for diffusion to occur between the well water and the PDB sampler. It also allows time for the restabilization of well water and formation water following any disturbance caused by sampler deployment. Restabilization typically occurs relatively rapidly in many situations, except in low-yielding wells. If the water temperature is below 10°C, additional equilibration time may also be required.

PDBs have routinely been successfully deployed for three-month periods and longer at some sites. Bag integrity is generally not a problem. Therefore, in most situations, samplers can be retrieved and deployed for the next quarterly monitoring round during the same mobilization. The advisability of longer deployment times is determined by individual well characteristics. A demonstration in a well of interest is recommended to verify the validity of PDB deployments longer than three months.

It is worth mentioning that, although biofouling is often raised as a potential problem in the long-term deployment of PDBs, the team does not know of a specific instance where biofouling has been documented. The potential for biofouling during very long deployments of PDBs (over three months) should be investigated on a well-specific basis.

2.4 Hydrological Considerations

To correctly interpret sampling results, it is important to know whether there is stratification of contaminant concentrations in the well and to what extent vertical and horizontal flows within the well affect the sample collected.

2.4.1 Contaminant Stratification

A number of factors in a screened interval or open borehole can cause mixing and make a uniform concentration within the screened interval despite the presence of stratification in the aquifer. These include dispersion, in-well vertical flow, and thermal convection. However, studies documented in Part 2 of the *User's Guide for Polyethylene-Based Passive Diffusion Bag Samplers to Obtain Volatile Organic Compound Concentrations in Wells* (Vroblesky 2001b) show that a high degree of variability in contaminant concentrations can sometimes occur within a 10-foot interval of well screen. Monitoring wells are commonly screened across heterogeneous material, such as sands, silts, and clays, which can influence groundwater flow and contaminant migration pathways. Therefore, in some cases, contaminant concentrations can vary or be stratified within a well-screen interval.

PDB samplers can be an effective tool for the characterization of vertical VOC stratification in the screened or open intervals of wells. PDB samplers will equilibrate with groundwater surrounding the sampler during deployment, measuring the VOC concentration at the interval where the PDB sampler is deployed. Therefore, it is recommended that, if contaminant stratification is present in a well, the appropriate depth for any planned single sampler

deployment be determined using project-specific DQOs. Initially, any well having more than 5 feet of well screen or open borehole below the groundwater surface should be evaluated for potential contaminant stratification. If multiple PDBs are deployed for this evaluation, there should be no more than 5 feet of separation between the midpoints of adjacent PDBs. Well-purge sampling will provide a composite VOC concentration over an interval that may comprise the entire well-screen length. Generally, the determination of vertical contaminant concentration gradients will be neither practical nor necessary if a well has a screen or open area length of 5 feet or less below the groundwater surface. However, it should be noted that stratification of TCE has been observed over distances of as little as 3 feet (Vroblesky 2001b). A single PDB sampler deployed in such a short interval can practically represent the limited interval of the aquifer that is in direct communication with the well. However, in wells with screens or an open area length of more than 5 feet, it is recommended that the presence or absence of vertical stratification of VOC concentrations be determined because knowledge of these gradients is necessary to optimize the placement of PDB samplers and effectively interpret PDB data.

Well-purge sampling collects a flow-weighted composite sample from some volume of aquifer over an interval that may comprise the entire well-screen length and beyond. Because low-flow and PDB sampling are more depth specific, a somewhat more detailed knowledge about the contaminant distribution and flow regime within the well is needed to interpret these results within the context of a well-defined conceptual site model. The Diffusion Sampler Team recognizes that low-flow sampling inlets have in the past often been placed midscreen without any consideration or investigation of contaminant stratification. However, the team believes such arbitrary placement is inappropriate for either low-flow or PDB sampling.

A variety of techniques can be used to determine the presence of vertical stratification. If depth-specific concentration data are available (e.g., from previous low-flow or PDB sampling, or discrete-depth sampling during the drilling of the well), it may be possible to use such data to identify the optimum location for placement of one or more PDB samplers. At individual wells where substantial historical data indicate that the flow system and plume configuration are relatively stable or predictable over time, it may be possible to profile a well using PDB samplers placed at different depth intervals during successive sampling events to develop a complete vertical profile while keeping initial deployment costs low. In all cases, detailed stratigraphic information, lithologic or grain-size data, geophysical logs, flowmeter data, and other available information should be considered in addition to contaminant concentration data. In this way, the decision regarding where and how many PDB samplers should be deployed is based on an understanding of the hydrogeological context rather than on only contaminant concentrations.

If available data are insufficient to adequately characterize contaminant stratification in a particular well, multiple PDB samplers may be deployed along the saturated screened interval to develop a vertical contaminant profile. For profiling purposes, as a general rule, a single PDB sampler with a nominal length of about 18 inches should not represent more than 5 feet of screened interval. If multiple lithologic units with contrasting hydraulic conductivities or multiple fracture zones are present within a 5-foot interval, more than one PDB sampler may be required to adequately determine the contributions of the various horizons. When possible, the deployment depths of the PDB samplers in the profile should target horizons determined from examination of the existing data. Placing PDB samplers at regular default intervals along the

well screen may result in data that cannot be attributed to any specific unit or zone because they were located at the interface between units, making interpretation of the results more difficult.

After a vertical contaminant concentration profile has been established for a well, the need to repeat the profiling process after a period of time will depend on the dynamics of the groundwater system. Generally, reprofiling wells should not be necessary. A well may need to be profiled again if contaminant concentrations at that particular sampling location vary widely over time or if water-level data indicate that the hydraulic stresses on the system at that location have changed substantially from those present when the well was originally profiled.

2.4.2 Vertical Flow within the Well

Vertical flow within a well is commonly found in bedrock aquifers but can also occur in unconsolidated formations or anywhere a screened interval or open borehole intersects zones of differing hydraulic head (e.g., Church and Granato 1996). If vertical flow is present in a well, the VOC concentration in a PDB will represent the water flowing vertically past it from another portion of the aquifer rather than the water in the adjacent formation. One means of evaluating vertical flow in a well is to use a borehole flowmeter to collect measurements across the entire well screen interval or open borehole. Using flowmeter data in conjunction with vertical profiling can provide a better understanding of contaminant distribution within the aquifer. Caution should be used when evaluating vertical flowmeter data from a screened interval because, while the flowmeter may provide useful data regarding zones of relatively high and low vertical flow, the data cannot be used quantitatively because part of the vertical flow moves through the annular space outside the screen.

For wells that have a 20-foot or longer saturated interval of well screen or open borehole, testing for vertical flow is recommended unless data exist to argue against it. The vertical spacing of flowmeter measurements along the saturated screened interval or open borehole should generally be every 2 feet unless there is sufficient justification for longer intervals. It is recognized that vertical flow can be of concern in wells with screens or open intervals much less than 20 feet (Hutchins and Acree 2000). As a practical matter, the team consensus is to defer the decision on making vertical flow measurements in these wells to professional judgment. Thus, the selection of the 20-foot interval as a point of differentiation is an arbitrary, although collective, decision.

2.4.3 Horizontal Flow

PDB samplers require sufficient groundwater flow to provide equilibration with the aquifer. Robin and Gillham (1987) showed that with sufficient aquifer flow conditions, groundwater will continually flow through a properly constructed well. Under these conditions, groundwater in the screen interval may be replaced in as little as 24 hours. For water in the well to be representative of the aquifer, the rate of solute contribution from the aquifer to the well must equal or exceed the rate of in-well contaminant loss, such as by volatilization or convection. This condition may not occur where groundwater velocities are very low or the well has a low yield, which is commonly the result of a very low gradient or a very low hydraulic conductivity. There are currently no data on the performance of PDB samplers in these situations.

Wells with sustained yields of less than 100 mL/minute have not been tested using PDB samplers, but all existing technologies have shortcomings in such environments. It is difficult to collect a water sample in low-permeability zones using any type of device, and PDB samplers may provide a practical approach if the restrictions are carefully considered. However, PDB sampling is not recommended for wells in which water in the screened interval becomes effectively stagnant. Less suitable wells also include those that are poorly designed, constructed, or developed.

2.5 Determining Deployment Depth

The depth at which a PDB sampler is deployed should not be arbitrary. The decision must be made based on knowledge of the aquifer, contaminant distribution, well construction, flow within the well, and historical sampling results. After the user has an adequate understanding of the hydrogeologic environment and contaminant distribution at a given monitoring well, there remains the question of the depth at which a PDB sampler should be deployed to collect samples. That decision must be made in accordance with site-specific—and even well-specific—DQOs.

It is critical that a PDB be fully submerged during the sampling period—contact with soil gas or air allows an exchange of VOCs between the PDB and the surrounding gases. Consideration must be given to potential fluctuation of the groundwater level in a well being monitored to ensure that the PDB will remain submerged during the sampling period. This care is particularly important where long deployment times are planned or where water levels are affected by tides.

The screened interval of monitoring wells often contains zones with varying rates of groundwater flow and varying levels of contamination. The highest contaminant concentrations may be observed in a highly conductive interval that represents a preferential pathway for migration of contaminants away from a source area. Conversely, some very fine-grained intervals may contain high contaminant concentrations, but they would not be expected to contribute significantly to mass flux in the aquifer or to a pumping well.

To determine which PDB deployment interval best represents the monitoring well, site-specific DQOs should be consulted. It may be beneficial to view each well in terms of mass flux, asking the question "Where is the majority of the contaminant mass moving across the well bore under ambient stress conditions?" Other questions such as "Where is the highest concentration of contaminants?" or "Where is the zone of average contaminant concentration?" could be the guiding principles for selection of a single PDB deployment depth. It is possible the appropriate question could change over time, particularly at sites undergoing active remediation efforts.

If much of the contaminant mass has been removed from the more productive zones within the aquifer, localized fine-grained intervals of the overall aquifer may contain the majority of the remaining contaminant mass and may act as a source of continuing mass loading to the groundwater through desorption of contaminants. If continuing remediation efforts are focused on removing the sorbed contaminants from the fine-grained materials, it would be consistent with the remediation objectives to place PDB samplers adjacent to those strata, at least in those areas where the removal efforts are taking place. Wells located on the perimeter of the plume may need to be monitored in higher conductivity zones that represent migration pathways away

from the treatment area. As with all groundwater sampling methods, site-specific DQO should guide decision making.

These particular scenarios are presented only to illustrate that the placement of PDB samplers (or any sampler) has to be consistent with the specific monitoring objective for a particular monitoring well, noting that the objectives for different wells in the monitoring system may be different and that the monitoring objectives for a particular well may change during the life of the project.

2.6 Diffusion Sampler Bag Size

A variety of PDB lengths and diameters can be employed, and manufacturers are generally able to accommodate a variety of well diameters and bag lengths. Factors to consider include the volume of sample needed for analysis (shorter or narrower bags provide less water) and the need for sample homogeneity (a very long bag is difficult to handle and may exhibit concentration variations along its length; some manufacturers insert a mixing ball into long PDBs to encourage efficient mixing upon retrieval). A bag length of 2 feet or slightly less is commonly used, with bag diameters that can accommodate a 2-inch-diameter well. The maximum interval sampled by a single PDB should not exceed 5 feet, so several PDBs in series may be required to sample a large well interval.

2.7 Sample Volume

The length and diameter of the PDB affect the sample volume available for analysis. The standard 18- to 20-inch-long and 1.25-inch-diameter PDB typically holds 220–350 mL of water. This is more than enough sample volume to run the typical analysis for organic volatiles by EPA Method 8260C, including all associated quality assurance/quality control (QA/QC) and any reruns that may be required. However, as the diameter and/or length of the PDB decreases, so does the available sample volume. The minimum volume of sample necessary to run EPA Method 8260C is 20 mL, assuming no method modifications and using currently accepted standard instrumentation. However, this minimum volume will not be sufficient to analyze matrix-spiked and duplicate matrix-spiked samples. Duplicate laboratory control samples may be run to provide precision data, but accuracy data would have to come from batch QC samples. Also, if sample volume is limited to 20 mL, reruns are not possible. If the sample volume will be limited, these considerations and limitations should be discussed with the regulatory agency involved with the project.

2.8 Deployment of PDBs in Wells with Dedicated Pumps

Under some circumstances, such as conducting side-by-side comparative sampling, the presence of a down-well pump is an issue. The successful deployment of PDB samplers in a 4-inch-diameter well with a dedicated pump is unlikely if the PDB needs to be placed below the pump. The best chance for successful deployment below the pump is in wells that are straight and plumb with diameters of at least 4 inches. Further, the wire and tubing in the well should be tightly bundled, under tension, and have no protruding ties or wires. It is unlikely that the PDB sampler can be placed *below* the pump unless the well diameter is much larger than the pump diameter and the well is plumb. Because dedicated pumps are generally sized to the well, it is

unlikely that there will be sufficient space between the pump and the wall of the well to allow for passage of the PDB sampler. Thus, for deployment of PDBs, it is essential that the pump is located within the screened interval and that sufficient saturated screen is available above the pump to expose the PDB sampler to moving groundwater. The pump should not be operated during the time interval a PDB is deployed because it would disturb the natural flow regime.

PDB samplers have been successfully deployed above dedicated pumps in 4-inch-diameter wells. Whether placement of a PDB sampler at the top of the pump proves adequate for monitoring depends upon the length of the pump, the pump intake, and the position of the pump relative to the screened interval. For wells with pumps near the middle or lower portion of the screened interval, it is likely that a PDB sampler can be placed within the screened interval.

Note that, although dedicated pumps currently in use are those that fit 2-inch-diameter wells, smaller diameter pumps (as small as 3/8-inch diameter) are now being manufactured. Such smaller pumps would be less of an obstacle in conducting PDB testing.

3. TECHNICAL DECISION ANALYSIS FOR USING PDB SAMPLERS FOR LONG-TERM MONITORING OF VOCS

The following series of questions is intended to enable someone to quickly screen sites and decide whether PDB samplers might be suitable as stand-alone monitoring devices. It is not meant to be a guide for how to implement PDB sampling. However, before deploying PDB samplers, it would be useful to answer these questions, discuss the use of PDB samplers with the regulators, and complete a cost comparison. A cost analysis model is discussed in Section 5.

1. **Is sampling being done for long-term groundwater monitoring?**
   - ➢ *Yes—Go to #2.*
   - ➢ *No—Stop. Consider use carefully.*

> To date, the recommended use of PDB samplers has been for LTM of groundwater plumes where specific VOCs are the sole target analytes. PDB samplers also have been shown to be an effective tool for characterization of vertical VOC stratification in the screened or open intervals of wells when (1) coupled with borehole flowmeter data and (2) the VOCs are known to be quantifiable using PDB samplers.

2. **Have the groundwater contaminants at the site been fully characterized?**
   - ➢ *Yes—Go to #3.*
   - ➢ *No—Stop. Consider use carefully.*

> PDB samplers should be used for sampling only VOCs and a few other chlorinated and aromatic compounds because of the diffusive properties of these compounds. Their use should be restricted until the site has been characterized using conventional or low-flow groundwater sampling methods and there are sufficient data to demonstrate that VOCs are the only analytes of concern or there is sufficient and conclusive site knowledge that VOCs are the only possible target analytes.

3. **Is groundwater sampling at the site focused on VOCs?**
   - *Yes—Go to #4.*
   - *No—Stop. Do not deploy without alternative plans.*

> The ability of a compound to diffuse into the PDB is essential, and most non-VOCs will not meet this criterion. PDB samplers are not suitable for collecting metals or semi-VOCs. Therefore it is inappropriate to use this technology for such analytes.

4. **Can all target analytes at the site be expected to be taken up by PDB samplers (see Section 1.1, Table 1-1 and Section 4.2.2, Table 4-1)?**
   - *Yes—Go to #5.*
   - *No—Stop. Consider use carefully.*

> Although most VOCs diffuse well through polyethylene, some do not or have not been properly tested and are therefore not currently recommended for PDB sampling.
>
> Tables 1-1 and 4-1 list compounds that have been the subject of laboratory and field tests. Reports found on the ITRC database at http://ds.itrcweb.org may provide further information on the suitability of PDB samplers for specific compounds. Further laboratory or field studies may be necessary before using PDB samplers for compounds not listed in the tables.

5. **Is groundwater temperature anticipated to be above 10°C (50°F) during all sampling events?**
   - *Yes—Go to #6.*
   - *No—Further study may be necessary.*

> The equilibration time for PDBs is temperature dependent. Although 14 days is a sufficient period in most instances, there are no equilibrium data for water temperatures below 10°C (50°F). Equilibration of the PDB samplers will be slower in cold water, and longer equilibration times may be necessary. A field test should be conducted to demonstrate that temperature is not a significant factor. Figure 3.1 maps groundwater temperatures. As an additional point of reference, groundwater temperatures are generally about 1–2°C above mean annual air temperatures.

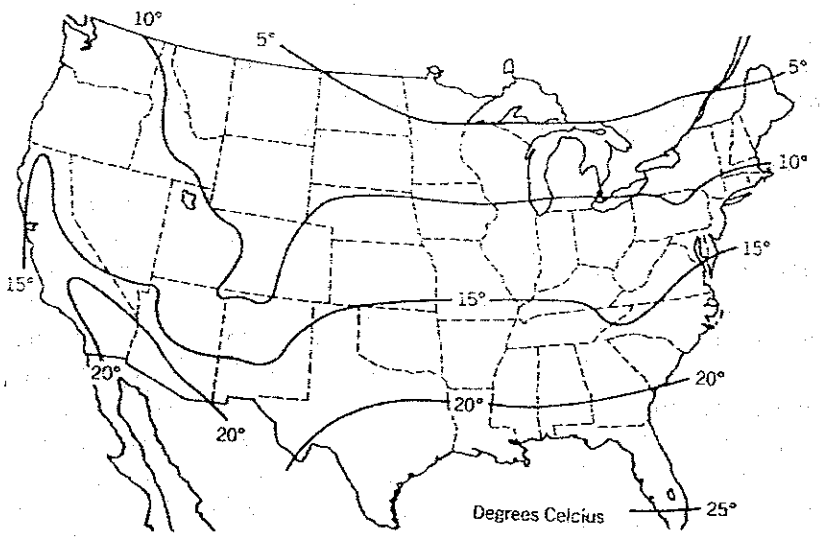


Figure 3-1. Temperature of groundwater in the conterminous United States at depths of 10–20 m (Collins 1925).

6. **Have you discussed the potential use of PDB samplers with regulators?**
   - ➢ *Yes—Go to #7.*
   - ➢ *No—Stop. Discuss use of PDB samplers with regulators before deployment.*

Existing regulatory permits, consent orders, and other agreements may contain language and/or sampling and analysis plans that stipulate a specific methodology for the collection of groundwater samples. In addition, agency guidance documents may also state a preference for a specific sampling methodology. Discussions with regulators should be held prior to the decision to deploy PDB samplers to determine whether alternative technologies will be acceptable. Significant negotiations may be needed to modify or amend permits, orders, and sampling plans, and in some instances public meetings may be required. The overhead costs of these negotiations should be considered in the decision process.

7. **Are site regulators familiar with PDB sampling technology, and will they allow the data to be used for the same purposes as those obtained by conventional sampling?**
   - ➢ *Yes—Go to #8.*
   - ➢ *No—Stop. Weigh cost and time factors before proceeding.*

Regulators may require some comparative sampling to provide evidence that the use of PDB samplers is valid at a particular site. If these requirements are extensive, costly, and burdensome, there may be no advantage to using PDB samplers. There may be reasons to employ PDB samplers in such an instance, but more information would be needed to evaluate specific situations. ITRC state points of contact (POCs) can serve as a technical resource for regulatory personnel within their own states and may be able to assist in evaluating requests to apply PDB samplers to specific sites. Section 4 of this document discusses regulatory concerns for the use of PDBs.

8. **Are the monitoring wells to be sampled in an area where there is sufficient groundwater velocity? Low groundwater velocity can result from either a low hydraulic conductivity or a low hydraulic gradient.**
   - ➢ *Yes—Go to #9.*
   - ➢ *No—Stop. Wells will need to be evaluated individually for PDB samplers.*

PDB samplers require groundwater flow sufficient to provide equilibration with the aquifer. This may not occur where groundwater is stagnant or the well has a low yield. Volatilization of VOCs in such wells may exceed the rate of replacement from groundwater flow. Wells with sustained yields of <100 mL/minute have not been tested using PDB samplers, but all existing technologies have shortcomings in such environments. It is difficult to collect a water sample in low-permeability zones using any type of device, and PDB samplers may provide a practical approach if the restrictions are carefully considered. Although definitive numbers cannot be provided, a groundwater velocity less than 0.5 feet/day, a hydraulic conductivity $<10^{-5}$ cm/sec, or a hydraulic gradient <0.001 is cause to take extra care in interpreting PDB results.

9. **Are monitoring wells currently free of dedicated pumps or other sampling equipment?**
   - ➢ *Yes—Go to #10.*
   - ➢ *No—Stop. Consider cost of removal.*

Dedicated pump systems (low flow or others) are employed at some sites to reduce costs at frequently sampled wells. They eliminate the need to decontaminate sample equipment and the collection of many types of sample blanks. Although dedicated pumps have a high initial cost, they may last up to 20 years and save money over that extended period. However, PDB samplers might be more cost-effective than dedicated pump systems if the pumps can be used elsewhere, if the pumps are near the end of their life cycle, or where the groundwater conditions significantly reduce the expected pump life. Replacement with PDB samplers might be considered on a graduated basis as old pumps need to be replaced. Deployment of PDBs in wells with dedicated pumps is discussed in Section 2.8.

10. **Has a cost analysis shown PDB samplers to offer a cost savings compared to current sampling techniques?**
    - ➢ *Yes—PDB sampling appears to be a viable alternative.*
    - ➢ *No—Stop. Retain existing sample collection program.*

A primary driving force in the use of PDB samplers is that it can be much less expensive than pump-and-sample technologies. A cost analysis is necessary to estimate whether the deployment of PDB samplers in a specific situation would result in savings. Remember to include in the cost analysis all laboratory or field tests that are likely to be required in a comparison study. Additional costs may incurred by a need to determine contaminant stratification or vertical flow. A cost model suitable for this purpose is presented in Section 5.

The largest cost savings related to the use of PDB samplers are in (1) personnel time on site and (2) the collection and disposal of purge water and the handling and disposal of decontamination fluids used on portable sampling systems. The size of the groundwater sampling operation will affect the cost savings. The cost for disposing of contaminated water and other liquids is site specific because some sites have their own resident treatment facilities. Sites that incur large costs because of off-site disposal are excellent candidates for PDB samplers even when only a modest number of wells are involved.

The above questions have been incorporated into a worksheet to be used as a preliminary screening tool. The worksheet is in Appendix C.

4. REGULATORY ISSUES

A number of technical and regulatory issues must be addressed if PDB sampling is substituted for other sampling methods. These issues must be examined within the context of the particular project objectives, data needs, and site conditions of each potential application.

4.1 Acceptability of PDB Sampling

PDB samplers must be appropriate to meet the data requirements at a site or a particular well. In addition, the sampling results must be correctly interpreted. Appropriateness is determined by the DQOs of the monitoring and by the ability of the samplers to reliably meet them. Correct interpretation of sampling results requires the evaluation of factors that affect the ability of a PDB sampler to obtain a suitable sample, including target contaminants, well construction, vertical and horizontal flows within the well, and contaminant stratification. Any proposal to use PDB samplers should consider an evaluation of these factors, as discussed in Section 2.

When considering a change in sampling methods, the question naturally arises how the results of the existing and new methods compare. It is important to remember that existing sampling methods are not necessarily "correct" simply because they have been in place for a time. Comparison of results obtained using different sampling methods is problematic because the different methods seldom produce the same results, although each may be representative of the aquifer in its own way. Therefore, PDB sampling results should not be expected to duplicate results from other sampling techniques.

It must be kept in mind that there are inherent limitations with every groundwater sampling method. When pumping a well, contaminants could be drawn into the well with groundwater that would not naturally flow into the well. Thus, results from purging and passive sampling techniques could be significantly different. The fact that results from PDB samplers do not agree with results from purge methods does not necessarily mean the bags are inappropriate for the intended application. Poor correlation between sampling methods means that additional work needs to be done to determine why the discrepancy exists.

4.2 Comparing PDB Sampling Results with Results from Other Sampling Methods

Different sampling methods collect water that differs in source—vertically and horizontally, as well as temporally. Therefore, differences in analytical results between PDB sampling and other methods should be expected. Similar results are not required for PDB data to be acceptable. The sampling method should be capable of producing data that meet the site-specific DQOs. The results must be consistent, coherent, and interpretable in context with all available information. There is no specific definition of "comparable" at present. It is essential that all parties involved in the deployment of PDBs at regulated sites identify and agree on DQOs, data evaluation criteria, and data end use before the PDBs are deployed.

The need and extent of sampling method comparisons are well specific. A common supposition may be that it is necessary to compare PDB sampling conduct side by side with the current sampling method. This approach may, in fact, be prudent for wells that have demonstrated considerable variability in contaminant concentrations and groundwater elevations over time. But comparison of PDB sampler results to historical sampling results may be sufficient for wells that have historically shown little variation in contaminant concentrations and groundwater elevations. LTM programs generally emphasize evaluating long-term trends, and reports should clearly identify where a change in sampling method occurred.

4.2.1 Statistical Approaches

Statistical approaches that have been used for comparisons include an evaluation of the relative percent deviation between the results of two different sampling methods and calculated correlation coefficients between results obtained by two different sampling methods. The results are seldom clear across the board but vary by well and contaminant. A particular contaminant may compare differently in two different wells at the same site (e.g., McClellan 2000). Although statistical evaluations may provide additional insight of the sampling process, they will generally not provide a clear path to the acceptance or rejection of PDB sampling. However, this information may help to refine the conceptual site model and focus future monitoring and/or remediation on specific zones within the aquifer or well. It is likely that long-term trend analysis will provide the most useful information.

Statistical regressions of PDB sampling data versus data from other sampling methods can often be misleading. Outlying data can produce a high correlation coefficient that is virtually meaningless. Therefore, statistical regressions should not be required for the comparison of PDB sampling with other sampling methods. A simple plot of PDB sampling data and other sampling data in relation to a 1:1 concentration line may provide a meaningful visual interpretation. Wells exhibiting outlying data on a scatter plot should be examined further by comparing results from

the conventional sample to a vertical concentration profile to determine whether the observed concentration differences are due to stratification within the well and mixing during the sampling events. If relative percent difference (RPD) is used to evaluate the comparability of sampling results, it is important to remember that variations in results for duplicate samples using conventional sampling techniques can be high. RPD is influenced by the analyte concentration, the target compound, matrix effects, and site-specific characteristics. It is also important to remember that different concentrations indicated using PDB samplers, compared to conventional sampling results, do not necessarily mean that environmental conditions are different than originally thought. The data must be interpreted within the context of the sampling method.

4.2.2 Examples of Acceptance Criteria

The implementation of PDB sampling at a site should be made in concert with the appropriate regulators. It is wise to decide upon the site DQOs and acceptance criteria beforehand. The decision to proceed may be based on comparison of results with historical data or a more comprehensive comparison study of PDB sampling and the current sampling methodology. The following are approaches that have been used in the past. These are not intended as recommended practices because there is at present no single set of criteria governing the acceptability of PDB sampling. It remains a site-specific exercise.

A demonstration using PDBs was conducted at McClellan Air Force Base in 1999 (McClellan 2000). One hundred thirty-eight PDBs were deployed in 30 wells. Each well was also sampled using conventional purge techniques at the time the PDBs were recovered. All samples were sent to the same analytical laboratory for analysis.

The McClellan report states that an acceptable variability in analytical results between an environmental sample and its paired duplicate is typically less than 30% RPD. Based on an analysis of the study's particular data, an RPD value of ≤15% was adopted as the standard of acceptable variability between PDB and conventional sampling results.

A test of means was used to determine whether the analytical results from PDB sampling and the conventional sampling could be said to represent the same statistical population. Normality tests were performed on the data using the Ryan-Joiner test to ensure the data were appropriate for use in a parametric test. Then a test of means was performed on each well-analyte pair between the two data sets, using a one-sided t-test at a 95% confidence level. Details can be found in McClellan 2000.

Another study by Parsons (2003) of 14 U.S. Department of Defense (DoD) installations developed a set of correlation criteria by which to compare PDB and conventional sampling results. Analytical results from each sampling technology were used to compute an RPD according to the equation:

$$RPD = 100 \times [abs(D - C)/(D + C)/2] \ ,$$

where

abs = absolute value,
D = PDB sample result,
C = conventional sample result.

Based on a review of standard conventions and literature RPD criteria, an RPD value of 30% was selected as a criterion to determine the acceptability of PDB sampling.

Three acceptance criteria were used to determine the suitability of PDB sampling for particular sites:

- *PDB sample results ≥ conventional sample results*—If at least one PDB sampling result for a given well is equal to or greater than the conventional sampling result, PDB sampling is deemed appropriate for use in that well.

- *RPD criterion*—If either the PDB or the conventional sample result is greater than three times the laboratory reporting limit (RL) and the PDB sampling result is less than the conventional sampling result, an RPD of 30 is used as the acceptance criterion.

- *RL criterion*—If both the PDB and conventional sampling results are less than or equal to three times the laboratory RL, a value of ± the RL is used as the range of acceptance between the two values. If the RLs for the conventional and PDB samples are different, the lower RL is used to determine the acceptance range.

The Parsons study included 332 wells and 1199 PDB samplers. Compounds were considered to have shown "acceptable" analytical results if they met the above correlation criteria in at least 70% of the comparison samples (Table 4-1). The Parsons study suggests that PDBs can be suitable for analytes beyond those that have been investigated in the laboratory (cf. Table 4-1 and Table 1-1). This study also suggests that site- or well-specific conditions may adversely affect PDB performance for some analytes that performed well in laboratory testing. Laboratory studies indicate the ability of an analyte to diffuse through the PDB, which is a requirement for effective PDB sampling, but field conditions introduce other variables that are not accounted for in the laboratory.

4.2.3 Reasons for Low Correlations

Sometimes there is not good agreement between PDB and conventional sampling results. PDB sampling should not be summarily dismissed in such cases. Rather, an attempt should be made to discover the reason for the discrepancy. Parsons (2003) compiled the following list of potential reasons that PDB samples and conventional samples might not agree:

- Low-magnitude concentrations where a small difference of a few micrograms per liter could result in a large percentage difference and failure of the RPD criterion.
- Inappropriate (too short or too long) deployment period.
- Excessive time lag between PDB and conventional sampling events.
- Laboratory- or field-induced contamination that may be present at varying levels in different samples but are not representative of site-related contamination.

Table 4-1. Field experience sampling VOCs with PDBs (Parsons 2003)

Data suggest that PDB sampling may be useful for these target compounds (see text)		
Benzene	1,2-Dichlorobenzene	1,1,2,2-Tetrachloroethane*
Bromobenzene*	1,3-Dichlorobenzene	Tetrachloroethene
Bromochloromethane*	1,4-Dichlorobenzene	Toluene
n-Butylbenzene	Dichlorodifluoromethane	1,2,3-Trichlorobenzene*
sec-Butylbenzene	1,1-Dichloroethane	1,2,4-Trichlorobenzene*
tert-Butylbenzene	1,2-Dichloroethane	1,1,1-Trichloroethane
Carbon disulfide	1,1-Dichloroethene	1,1,2-Trichloroethane
Carbon tetrachloride	*cis*-1,2-Dichloroethene	Trichloroethene
Chlorobenzene	*trans*-1,2-Dichloroethene	Trichlorofluoromethane
Chloroethane	1,2-Dichloropropane	1,1,2-Trichloro-1,2,2-trifluoroethane
Chloromethane	Ethylbenzene	Vinyl chloride
Dibromochloromethane	Hexachlorobutadiene*	*m,p*-Xylene
1,2-Dibromoethane*	*p*-Isopropyltoluene	*o*-Xylene
Dibromomethane*	1-Methylethylbenzene	Xylenes, total
Data suggest that PDB sampling may be problematic for these target compounds (see text)		
tert-Amyl methyl ether*	Naphthalene	1,2,4-Trimethylbenzene
Bromoform*	*n*-Propylbenzene	1,3,5-Trimethylbenzene

* The data set for this compound was relatively small (fewer than five instances of comparison), so the power of the classification (i.e., acceptable or unacceptable) is fairly low.

- Inherent differences between PDB and conventional sampling methods (i.e., the fact that some conventional samples are drawn from a much larger volume of the aquifer than are PDB samples).
- Water table above the top of the well screen. This cause is related to the preceding one and may be particularly significant at fuel-contaminated sites, where fuel concentrations may be highest near the water table. These higher concentrations might be drawn into the well during a conventional purge but would not be detected by PDBs deployed in the screen interval.
- Significant contaminant stratification in which dissolved contaminants are localized in discrete layers that may not be sampled by PDBs. Also, nonuniform distribution of dissolved contaminants in the aquifer (e.g., among the benzene, toluene, ethylbenzene, and xylenes [BTEX] compounds) due to differences in solubility, density, sorptive, and degradation properties.
- Aeration of PDBs during the deployment period due to a declining water table or deployment above the water table.
- Deployment of the PDBs above or below the screened interval of the well, where natural groundwater flow through the well does not occur.
- Vertical flow in the well resulting from the presence of vertical hydraulic gradients.
- Aquifer characteristics such as hydraulic conductivity, groundwater velocity, and lithology that might limit natural flow of groundwater through the well screen.
- Well-specific conditions that would limit groundwater flow through the well, such as where the filter-pack permeability is lower than that of the aquifer, causing groundwater flow lines to diverge around the well.

- Compound incompatibility with PDBs. Some compounds (e.g., methyl *tert*-butyl ether [MTBE], acetone, 4-methyl-2-pentanone, and styrene) have been shown to have poor diffusivity across the PDB membrane (Vroblesky 2001a).
- Physicochemical properties of the compound. This cause is related to the preceding one and includes compounds that are not listed in Vroblesky 2001a) but have had less favorable field results (see Section 4.2.2, Table 4-1).
- Laboratory-induced variability resulting from the PDB and conventional samples' being analyzed in different sample delivery groups and therefore being potentially analyzed on different days, by different operators, on different equipment.

4.3 Changes in Regulatory Agreements and Documents

Existing regulatory permits, consent orders, and other agreements may contain model language and/or sampling and analysis plans that stipulate a specific methodology for the collection of groundwater samples. In addition, agency guidance documents may also state a preference for a specific sampling methodology. Discussions with regulators should be held prior to the decision to deploy PDB samplers to determine whether alternative technologies will be acceptable. Negotiations may be needed to modify or amend permits, orders, and sampling plans; in some instances, public meetings may be required.

4.4 Compliance Sampling

Although the major use of LTM results is to track temporal changes in the extent and degree of aquifer contamination, there are other monitoring applications for PDB samplers. Monitoring for site closeout entails evaluating groundwater quality against specific water-quality goals. Given that PDB sampling is a valid and defensible technique that produces representative samples, it is the Diffusion Sampler Team's judgment that PDBs are an acceptable means for collecting site closeout data. There is no reason to expect that other sampling techniques produce results that are either superior to or more protective than PDB sampling. DQOs and knowledge of the site should guide the decision on the most appropriate sampling technology to employ.

Sentinel wells are another potential application for PDBs. These wells are uncontaminated wells located beyond areas of contamination and used to monitor the advance of contaminated groundwater, or to provide warning of contaminant migration toward production wells and potential receptors. The leading edge of an advancing contaminant front would most likely be within a zone of higher hydraulic conductivity, which would contribute substantially to a pumped sample. PDB samplers might be advantageous in that they could potentially detect VOC contamination that would be diluted below detection limits using well-purge sampling techniques. However, if the screened interval of the well is greater than about 5 feet, a single PDB might not detect contamination that would appear above or below the placement depth of the bag. In such cases, multiple PDBs would be needed in each sentinel well for each sampling event to ensure timely detection of advancing contaminants at all depths across the entire screened interval. This requirement could make PDBs less cost-effective if adequate coverage of a long screened interval is to be ensured. Again, DQOs and knowledge of site characteristics, special requirements, or overriding considerations at a site should determine whether PDBs are appropriate for sentinel wells.

4.5 Survey of State Regulators

The ITRC Diffusion Sampler Team conducted a survey of state regulators in May 2003. In total 54 responses were received from 23 different states. The primary purpose of the survey was to identify any rules or regulations that would impede the implementation of PDB sampling. None were identified. The survey also sought the views of regulators on specific applications for PDBs and their familiarity with the technology. PDB sampling is being implemented across the country: all but two of the 23 states reporting had sites using the technology. Appendix D contains a compilation of the survey results.

Contact with regulators was initiated by the ITRC state POCs. The survey was Internet-based; responses were entered and recorded online. Multiple responses were allowed within any state, without regard to specific agencies. A complete analysis of the survey results will be published and be made available on the DSIC Web site. The focus of this discussion is on the potential impact of state and federal rules and regulations on the use of PDBs, as well as the existing regulatory climate and attitudes that could affect applications of this new technology.

One question on the survey asked respondents to identify any state rules or regulations that could hinder the use of PDBs for groundwater monitoring. Three responses suggested potential problems; however, further investigation revealed that the situations cited did not represent a roadblock. One comment was in reality a technical comment related to appropriate use, and a second comment indicated a variance would be required because the methodology is not currently in the state's sampling manual. Notably, this particular state will soon publish a new manual that does include PDB sampling. The third comment concerned sites monitoring for a broader list of contaminants that were not all amenable to PDB sampling. Again, this is more of a technical issue than a regulatory problem. In summary, the survey did not identify any barriers to the use of PDBs for groundwater sampling based in state rules and regulations. A similar question concerning federal rules and regulations likewise identified no hindrances.

Regulators from nine of the 23 states surveyed stated they had guidance on PDB technology. However, such guidance was generally not a state-specific document but an external publication such as the *User's Guide* (Vroblesky 2001a, 2001b). At this writing only a single state (New Jersey) has drafted specific guidance related to PDB sampling. The New Jersey guidance will be published in March 2004 and will be included in a revised version of the state's *Field Sampling Procedures Manual*, to be published later in 2004.

One series of questions in the survey sought to identify what regulators considered to be acceptable uses for PDB sampling. Respondents were asked to identify in which of the following scenarios they felt PDBs could be implemented, assuming all contaminants of concern would be adequately monitored with PDBs: LTM, compliance monitoring, sentinel well plume detection, site closeout, and site characterization (Figure 4-1).

Use of PDB sampling for LTM had widespread support among the regulators. There were no objections, although some specified support was conditional on site-specific characteristics. There were few objections to using the PDB technology for either compliance monitoring or sentinel well plume detection. Again, some regulators cautioned that site-specific characteristics had to be considered.

The use of PDB sampling for site closeout was more controversial. Twenty-six percent of the respondents said they would support this use, and an additional 54% said they would support it with conditions. Twenty percent of the regulators stated they would not use PDBs for site closeout. Of the five PDB uses queried, this one had the least support. The use of PDBs for site characterization was supported by 41% of the regulators, as well as an additional 44% who would do so conditionally. Thirteen percent did not favor the use of PDBs for site characterization.

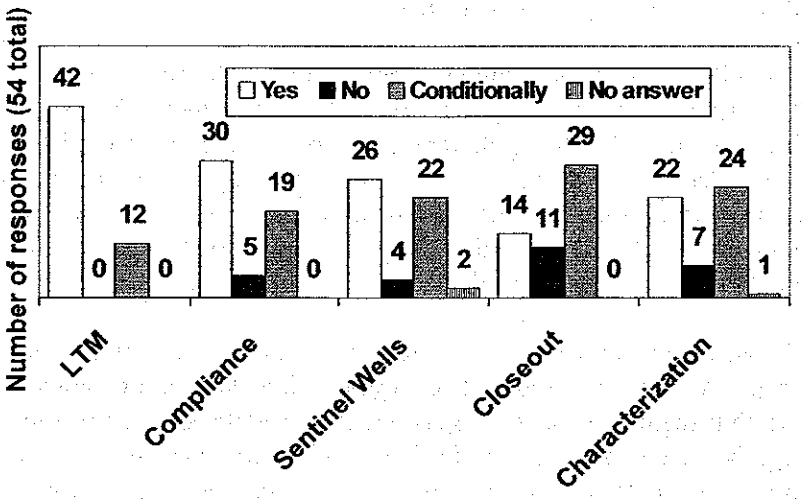


Figure 4-1. Regulator responses regarding the use of PDBs for various purposes.
(The 54 responses came from 23 different states.)

Analysis of these data by state is complicated by the fact that ten states had multiple responses, sometimes from separate agencies. It is not surprising that there was some disagreement within a single state. Figure 4-2 is an attempt to summarize the results on a state basis. To achieve this end, the most liberal use of PDB technology has been reflected. For example, if one regulator in the state would permit the use of PDBs for site closeout, then that opinion is the one entered, even though others from that state may not favor that use. It is recognized this treatment skews the results, and Appendix D contains a complete compilation of the results for anyone who wishes to perform a different analysis.

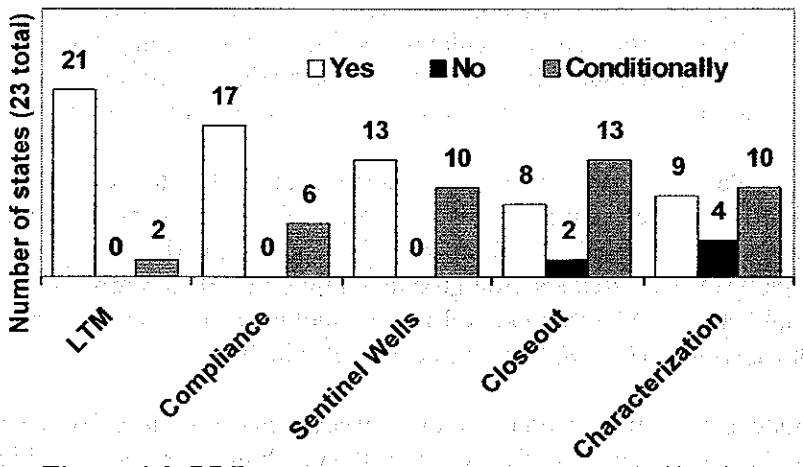


Figure 4-2. PDB survey results from 23 states indicating regulator support for specific uses of PDBs.
(Note that the responses reflect not an official state policy but only the proclivity of individual regulators.)

This survey of state regulators identified widespread support for the use of PDB sampling technology, particularly for LTM. Acceptance has been gained over time as more professionals

become aware of the advantages of the technology. At the same time, awareness of its limitations justifiably results in "conditional" approval by regulators. The application of PDBs should always be governed by site-specific characteristics and DQOs.

5. COST ESTIMATES

PDBs offer many advantages, including significant cost reductions over purge sample-collection techniques. This section provides information, tools, and case studies to help compare the cost of using PDBs to collect monitoring well samples with other common sample-collection techniques, such as low-flow and whole-well-purge methods. An interactive spreadsheet that compares costs associated with PDBs with other sample collection techniques can be downloaded from the DSIC at http://ds.itrcweb.org.

This section also discusses the cost to convert to PDB sampling from another sample-collection technique. The degree of testing required and the anticipated costs vary widely. Implementation costs are discussed to make the reader aware of potential costs that may be incurred in converting to PDB sampling. Some alternative approaches are presented that might reduce implementation costs. The type of testing required to demonstrate PDBs at a specific site depends on the quality and quantity of site historical data, site groundwater and contaminant dynamics, regulatory requirements, and the willingness of responsible parties to work at risk without explicit regulatory approval.

The case studies provided here are an attempt to communicate practical experience obtained from the field. A cross section of examples from private, DOE, and Air Force sites is provided. More examples are available at the DSIC.

5.1 Estimating PDB Implementation Costs

It is generally desirable to perform an evaluation of the implementability of PDB sampling in a well prior to conversion to PDB sampling. The scope and cost of this evaluation can vary significantly depending on site-specific conditions and regulatory requirements. In some instances, the implementation cost may exceed the return on investment, such that further consideration of PDB sampling is not warranted. Conversely, the cost savings realized through conversion to PDB sampling may validate the investment in the implementability evaluation.

Several considerations applicable to PDB implementation are discussed below. Although not all of these considerations may be applicable for each application, they provide useful guidance for estimating implementation costs.

The complexity of an implementation evaluation may vary depending on the application. For example, a simple pilot evaluation may involve placing a zip-lock bag filled with distilled water in a well for two weeks, retrieving it, analyzing the contents for VOCs, and comparing those results to historical VOC data from the same well. Alternatively, a more rigorous evaluation may involve development of a work plan, extensive field and laboratory investigations (e.g., vertical contaminant profiling and vertical-flow measurement), data analysis and evaluation, development of recommendations, reporting, regulatory interaction, document revision (e.g.,

sampling program guidance documents), and consecutive follow-up evaluations. As a conservative approach to determining the implementation cost, a moderately rigorous implementation evaluation is described in detail below.

A common approach for determining the implementability of PDB sampling is to perform a side-by-side comparison of PDB and conventional sampling results. Additionally, vertical contaminant profiling of each well is recommended to identify the optimal deployment depth of the PDB sampler. This type of investigation might involve the following activities:

- *Work Plan Development*—A document detailing the objectives and scope of a PDB sampling evaluation should be developed. This document can be used to initiate regulatory interaction and potential later acceptance of the PDB method and also to provide direction to the field scientists performing the implementation evaluation. Depending on the type of work plan developed, this cost can vary from a few hundred to several thousand dollars. As a guide, it would not be unreasonable to assume labor costs of approximately 1–2 hours per well to develop a work plan.

- *Field Equipment Procurement*— Table 5-1 is a list of equipment, supplies, and laboratory analytical services typically required to perform a PDB evaluation, along with their typical costs. Costs for field equipment, including laboratory analysis, can vary from a few hundred to a few thousand dollars per well and are heavily dependent on the number of samples needed to obtain the vertical profile. Note that laboratory VOC analytical costs will be the same regardless of sampling method.

Table 5-1. Nonlabor direct costs associated with implementation of PDB sampling

Item	Cost
Stainless steel weight (extra heavy)	$15.00
1000-foot spool of 0.125-inch poly rope	$19.75
Diffusion sampler	$14.00
Plastic sheeting (per roll)	$6.00
Purified water (per gallon)	$1.00
Nitrile gloves (box)	$11.50
Water-level meter rental (per day)	$20.00
Vehicle rental and gas (per day)	$65.00
Photoionization detector (per day)	$60.00
Photoionization detector calibration gas	$35.00
Zip ties (each)	$0.03
Sample labels (per well)	$0.20
Laboratory analyses (SW8260B, per sample)	$135.00
Shipping field equipment and supplies	$50.00
Sample shipment (per cooler)	$50.00

- *Field Sampling*—If coordinated with a scheduled conventional sampling event, an initial PDB sample collection involves two mobilizations to the site/well: one to deploy the PDB samplers and a second to retrieve them during the coincidental conventional sampling event. The field labor required to complete the PDB sampling portion of this phase varies depending on site and well characteristics. During a large-scale PDB sampling demonstration performed for the Air Force (Parsons 2003), the labor required to perform field sampling ranged 1.8–9.5 hours per well and averaged approximately 3 hours per well (see Table 5-2). For subsequent samplings, consideration can be given to deploying the

samplers following recovery of the previously deployed samplers, thereby eliminating a separate deployment trip. In addition, subsequent samplings typically involve a single PDB sampler deployed at a depth determined from initial vertical profiling. Recovery of a single PDB sampler should require a substantially shorter time than the average of 3 labor hours per well previously cited.

- *Data Analysis/Evaluation and Reporting*—This task involves sample tracking, database development and management, data validation, data analysis/evaluation, and reporting. The cost of this task can vary significantly depending on the scope of the implementation evaluation.

- *Recommendations*—This task involves reviewing the results of the PDB sampling evaluation and developing well-specific recommendations for optimal PDB placement depths for those wells approved for PDB deployment. Additionally, anomalous situations may require further evaluation and study. If additional field evaluations are necessary, this cost will be increased.

- *Regulatory Interaction*—Some regulatory interaction costs would likely be incurred to gain approval for switching from the current sampling technique to PDB sampling. Before going through all the permit modifications and revising the sampling and analysis plan and the quality assurance project plan, discuss with your regulator the possibility of a variance to evaluate the use of PDBs at the site. If the evaluation indicates that PDBs are appropriate for monitoring the contaminants at the site, then proceed to modify the appropriate permits and documents.

- *Document Revision*—If the groundwater sampling method is changed to PDB sampling, some revision of sampling-related documents will be required as indicated above.

Table 5-2 provides a summary of implementation costs at 14 Air Force installations, including minimum, maximum, average, and median values. While these data indicate a significant variability in cost from one installation to the next, the reduction in costs using PDB technology as opposed to conventional sampling techniques is consistently in the range of 60%–80%.

In summary, there are many items and tasks to consider prior to implementation of a PDB sampling program. These costs can vary significantly depending on the scope of the sampling program. Although some examples of typical costs have been presented above, each item should be considered individually on a site- or well-specific basis to estimate an implementation cost specific to the application.

5.2 Offsets to Implementation Costs

Implementation costs can sometimes be offset or reduced by careful planning and coordination. The following sections discuss some aspects to consider.

Table 5-2. Cost of implementing PDB sampling at 14 DoD facilities (adapted from Parsons 2003)

Installation	Number of wells evaluated	Implementation labor hours—total / per well[a] (hours)	Other direct implementation costs—total / per well ($)	Total estimated implementation costs per well[b] ($)	Long-term cost of conventional sampling per well, per event ($)	Long-term cost of PDBs per well, per event ($)	Cost advantage of PDB sampling over conventional sampling per well, per event ($)	Percentage cost savings of switching to PDB sampling	Return on investment (%)
Andrews AFB	26	90 / 3.5	16,276 / 626	2,381	332	78	254	77	213
Bolling AFB	10	25 / 2.5	3,705 / 370	4,256	186	68	118	63	1
Buckley AFB	16	48 / 3	6,149 / 384	2,619	336	74	262	78	200
Columbus AFB	20	60 / 3	1,240 / 602	2,417	343	70	273	80	407
Dover AFB	20	47 / 2.3	10,399 / 520	2,267	323	68	255	79	459
Edwards AFB	38	108 / 2.8	20,783 / 547	1,808	218	72	146	67	324
Keesler AFB	17	50 / 2.9	8,562 / 504	2,809	474	106	368	78	260
Shaw AFB	24	43 / 1.8	9,339 / 389	1,597	304	67	237	78	613
Vandenberg AFB	56	150 / 2.7	32,198 / 575	1,653	296	75	221	75	583
George AFB	34	71 / 2.1	21,954 / 646	1,812	414	95	319	77	704
March AFB	20	51 / 2.6	17,284 / 864	2,100	209	62	147	70	472
Norton AFB	17	64 / 3.8	17,776 / 1,046	2,900	297	71	226	76	500
Williams AFB	10	95 / 9.5	22,975 / 2,298	5,315	813	182	631	78	258
DDJC-Sharpe	25	85 / 3.4	16,233 / 649	2,308	227	62	167	74	232
Minimum	10	25 / 1.8	3,705 / 370	1,597	186	62	118	63	1
Maximum	56	150 / 9.5	32,198 / 2,298	5,315	813	182	631	80	704
Average	24	70 / 3.3	15,405 / 716	2,589	341	82	259	75	373
Median	20	62 / 2.9	16,255 / 588	2,345	314	72	246	77	366

[a] Using a two-person field team.

[b] Implementation cost includes work plan development, vertical profiling (one PDB per 3 feet of saturated screen) of each well, field equipment and laboratory analyses, field sampling labor, data analysis/evaluation and reporting, recommendation development, regulatory interaction, and revision of existing sampling program documents (e.g., sampling and analysis plan, quality assurance project plan).

5.2.1 Purge Water

Most sampling situations require purged well water to be contained and disposed of, requiring labor (to purge the well, transport the water, and transfer it to either a treatment facility or a contractor for transport to its disposal destination), transportation, storage (e.g., Baker tank rental), and disposal costs. Since virtually no wastewater is generated with PDB sampling, these costs would likely be greatly reduced or entirely avoided.

5.2.2 Reduced Sampling Time

In cases where the number of sampling days is expected to decrease, there should be a reduction in the number of QA/QC samples. Labor costs can be reduced approximately 15 minutes per QA/QC sample eliminated. In addition, lower analytical and shipping costs should be expected. QA/QC samples include the following:

- trip blanks—typically one per cooler shipped, usually one per sampling day;
- duplicate samples—typically 10% of the total primary samples collected;
- matrix spike and matrix spike duplicate—typically 5% each of the total number of primary samples collected; and
- equipment blank (e.g., equipment rinsate)—typically 5% of the total number of primary samples collected, or a minimum of one per day.

Rather than making a special unscheduled trip to the site to install/remove PDBs, attempt to coordinate placement or removal of the PDBs at the same time the sampling crew normally is at the well locations (e.g., during times of water level measurement or other sampling).

5.2.3 Coordination of Sampling

When discussing implementation of the PDBs with your regulator, discuss ways to implement PDBs without significantly increasing your implementation costs. For example, at a site that has been well characterized, has been conducting routine groundwater monitoring for several years, and is currently using low-flow sampling techniques, you may want to discuss placing one diffusion bag sampler in each monitoring well during the next scheduled sampling event at the same depth interval from which low-flow samples have been previously collected to see how well they correlate to historical VOC concentration ranges at those wells. This approach would enable PDBs to be evaluated without a side-by-side comparison of PDB to contemporary conventional sample results and would effectively cut the implementation cost in half. For those wells where PDB results are outside the historical concentration range for a particular well, additional vertical profiling may need to be conducted. It should be noted, though, that if the site is not well characterized and PDB results differ from those obtained using conventional sampling techniques, it may be more difficult to convince a regulator that PDBs are adequate for monitoring VOCs at those wells.

5.2.4 Phased Sampling

If vertical profiling is necessary because the saturated well screen length is greater than 5 feet or the existing site characterization (e.g., historical record) is inadequate, it may be attractive to

phase in the vertical profile or implementation evaluation. For example, for a site with 20 wells sampled quarterly, the PDB evaluation and vertical profiling could be performed in five wells each quarter. Then the evaluation for the entire site would be completed within one year, but the PDB implementation costs would be distributed evenly through four different sampling events.

5.3 Cost Model

The potential cost savings of implementing PDB sampling in place of other sampling methods is a driving force in the deployment of PDBs. A cost model has been developed that enables cost implications to be evaluated in the assessment of PDB deployment on a site-specific basis. It may be downloaded from the DSIC at http://ds.itrcweb.org. The cost comparison technique used by the spreadsheet is a standard "present value" calculation to represent the total, present-day cost of future sample collection expenses. The spreadsheet model sometimes uses default values based on data collected during previous field demonstrations of PDBs, but the user is encouraged to use site-specific cost data so that the cost comparison is more accurate. Certain site-specific conditions, such as whether well purge water is treated on site without cost or is transported off site and treated at an additional cost, can have a substantial impact on the cost analysis.

The intent of the cost model is to enable the comparison of sampling costs for the current sampling method, PDBs, and another alternative sampling method. The alternative scenario can be used to compare costs with a third sampling technique or with the modification of certain parameters previously defined in one of the other two scenarios (akin to a sensitivity analysis for selected parameters). An example would be to evaluate the impact of reducing the sampling frequency.

The cost model is an Excel spreadsheet with defined formulas to calculate net present value (NPV) of up to three sampling scenarios. The cells in the spreadsheet are color-coded: a blue font indicates user input is required; a red font indicates a calculated value. When an override value is entered by the user, the cell background changes to blue. The "economic evaluation" spreadsheet requires the user to enter costs by category (discussed further below), which are used to calculate a "cost per event." This value is multiplied by the number of events per year for up to 30 years to calculate a total annual cost. Using a provided discount rate, the NPV for up to three sampling alternatives is calculated, providing a comparison over a time interval of up to 30 years. These results are presented in the spreadsheet titled "Year by Year NPV."

The user input fields are described in Table 5-3. Each cost category has extra fields to enable costs not included in the defined cost fields to be included on a site-specific basis.

Table 5-3. Input fields for the PDB implementation cost model

Category	Description
Number of field personnel	Field personnel required for sampling.
Sampling days (per event)	The number of days required to sample all wells included in the sampling event. As guidance, it would be reasonable to expect sampling at least 20 wells per day when each well has a single PDB and is less than 50 feet deep. This estimate would be influenced by an event in which vertical profiling is conducted or situations where PDBs are not used for all sampling events because occasionally analyses for analytes may be required that PDB samplers cannot collect.
Length of sampling day (hours)	Hours of sampling activity per day; an integer 1–16.
Labor cost (hourly per person)	Hourly labor rate for field personnel. This may be an average blended rate if sampling personnel change throughout a project, as they frequently do.
Per diem (daily per person)	The daily cost per person for food and lodging.
Travel and transportation costs (per event)	Travel for field personnel and transportation of equipment, per event.
Equipment rental/disposables	Costs associated with equipment rental and disposable items. Specify all sampling equipment costs here (whether rented or owned). If equipment or pumps can be redeployed to another location, you may enter a negative dollar amount. The cost of all PDB equipment needs to be included here. Detailed site-specific costs are preferred, but for estimation guidance, see Section 5.1, Table 5-1.
Miscellaneous sampling cost 1	User-identified supplemental cost. Credits may be entered as negative values.
Miscellaneous sampling cost 2	Same as above.
One-time cost for PDB sampling (first year only)	Additional costs experienced during the initial year of PDB sampling. Refer to estimates of implementation costs in Section 5.1.
VOC analysis cost	The cost of laboratory VOC analyses.
Number of wells	The number of wells sampled.
Number of samples per well	The number of samples collected per well. This is generally one unless vertical profiling is being done.
Shipping	The cost of shipping samples to the analytical laboratory. A default value is $50 per day (assuming one cooler per day).
Number of duplicate samples	The default value is 10% of the total number of samples taken, but value may be user defined.
Number of equipment/field blanks	The default value is one per day of sampling, but the value may be user defined.
Number of matrix spike and matrix spike duplicate samples	The default value is 10% of the total number of samples taken, but the value may be user defined.

Category	Description
Number of trip blanks	The default value is one per sampling day, but the value may be user defined.
Miscellaneous analytical cost 1	User-identified supplemental cost. Credits may be entered as negative values.
Miscellaneous analytical cost 2	Same as above.
Waste treatment cost (per event)	Cost to treat waste produced by sampling.
Waste disposal cost (per event)	Cost to dispose of waste produced by sampling.
Waste transportation cost (per event)	Cost to transport waste produced by sampling.
Miscellaneous waste disposal cost 1	User-identified supplemental cost. Credits may be entered as negative values.
Miscellaneous waste disposal cost 2	Same as above.
Number of events (annually)	Number of sampling events scheduled per year.
Inflation rate (percentage)	Assumed rate of inflation. Default value is 3%.
Discount rate (percentage)	Assumed discount rate. Default value is 7%.
Number of years to run model	User defined for up to 30 years. Default value is 30.
Tax rate (percentage)	Assumed tax rate. Default value is 0%.

5.4 Examples/Case Studies

The following specific examples provide data on the cost savings realized when the sites changed groundwater monitoring protocols to incorporate PDBs.

5.4.1 A Private Facility

A private facility conducting LTM of groundwater exclusively for VOCs using either low-flow or bailer sampling methods had over eight years of groundwater monitoring data. PDB sampling was evaluated, and all contaminants of concern (COCs) were measurable by the PDB method. There were 20 wells (all generally less than 40 feet in depth) in the LTM program that historically required five days to sample (including mobilization and demobilization). Since converting to PDB sampling, these 20 wells are now sampled in one day, saving four days of labor and per diem costs for a two-person sampling crew per sampling event. The annual cost of this quarterly monitoring program was reduced 52%, from $18,800 to $9,860 based on labor and per diem savings only.

5.4.2 Kansas City Plant

This DOE facility previously conducted semiannual LTM for VOCs using micropurge and traditional bailing (Baker et al. 2000). By converting mostly to the PDB sampling method (221 of 316 total samples), annual LTM costs were reduced 54%, from $32,415 to $14,835. Concurrently, sampling labor was reduced 35%, from 133 to 87 hours, and annual wastewater generation was reduced 98%, from 783 to 19 gallons. Solid waste (disposable materials and equipment) associated with groundwater sampling was reduced 85%, from about 886 to 129 pounds.

5.4.3 McClellan AFB

McClellan AFB is a nearly 3,000-acre facility near Sacramento, California. More than 400 wells are presently being used to monitor the migration of multiple VOC-contaminated groundwater plumes. A 1999 demonstration study (McClellan 2000) deployed multiple PDB samplers in 30 monitoring wells and compared their performance to conventional purge and sampling. The consequent report also compared costs of sampling using PDBs, conventional purge and sampling, and low-flow sampling. Based upon sampling 125 wells, the annual recurring costs were estimated to be $98,098 for PDB sampling, $236,572 for conventional purge and sampling, and $289,172 for low-flow sampling. These estimates represent about a 60% reduction in recurring costs when PDB sampling is used. A one-time cost of $32,500 was added for PDB and low-flow sampling to determine optimal sampler position. Capital costs were approximately the same for all methodologies. The majority of the savings related to decreased labor costs associated with purging during the sampling events.

6. CASE STUDIES

The following examples demonstrate the value of PDBs at a variety of sites. Additional case studies have been documented in the *User's Guide for Polyethylene-Based Passive Diffusion Bag Samplers to Obtain Volatile Organic Compound Concentrations in Wells, Part II: Field Tests* (Vroblesky 2001b). Other references are Ballestero, Silva, and Newman (2002); Gefell, Hamilton, and Stout (1999); Harte (2002); and Parker and Clark (2002). A case study database maintained on the DSIC (http://ds/itrcweb.org) provides a search function as well as the opportunity to remotely submit contributions.

6.1 PDBs Approved for Long-Term Monitoring

Site name: Cape Canaveral Air Force Station (CCAFS), Pilot Study Sites Space Launch Complex 11 (SLC-11) and SLC-12

Site location: Cape Canaveral, Florida

Date of study: October 2000

Hydrogeological setting: Shallow (within 5 feet of the ground surface) water table conditions, medium- to fine-grained sands

Well construction: Wells screened across the water table, screened intervals of 10 feet, no dedicated pumps

Contaminants of concern: Chlorinated solvent VOC compounds including TCE, 1,1-dichloroethene (DCE), *cis*-1,2-DCE, *trans*-1,2-DCE, and vinyl chloride. Source—historical on-site handling/disposal of solvents.

Remedial operations: Under the Resource Conservation and Recovery Act (RCRA) process, the two pilot study sites have progressed through the RCRA facility investigation (RFI) and the corrective measures study (CMS). LTM of chlorinated solvent compounds was selected as the remedial action for the two sites. LTM has been ongoing since 1998.

Point of contact: John R. McGann, PG, BEM Systems, Inc., SE Regional Operations, 930 Woodcock Road, Suite 101, Orlando FL 32803

Costs: Field collection costs using PDB samplers—One-time setup costs of $30/well, and field sampling costs of approximately $125/sample.

Regulatory status/approval: Florida Department of Environmental Protection and EPA approval for use of PDB samplers at six CCAFS VOC sites was granted. Subsequently, no further action (NFA) was granted at two of the LTM VOC sites where PDB samplers were used for sampling/monitoring.

Narrative: A pilot study was performed in October 2000 on 11 monitoring wells located at the two inactive launch complexes. A comparison of the analytical results obtained through side-by-side collection of samples using low-flow procedures and PDB samplers indicated that the PDB and low-flow results were comparable. Since regulatory approval was granted for the use of PDB samplers at the CCAFS VOC LTM sites, two of the sites were granted NFA and closed. PDB samplers are currently used at four CCAFS VOC LTM sites: SLC-11, SLC-12, FT-17, and Facility 84920.

Site-specific references: *Cost-Efficient Long-Term Monitoring (LTM) of Chlorinated VOC Plumes through the Utilization of Passive Diffusion Bag (PDB) Samplers* (June 2001); annual reports for LTM at SLC-11, SLC-12, SLC-18 (closed), SLC-19 (closed), FT-17, and Fac. 84920.

6.2 PDBs Used to Investigate Contamination in Fracture Zones

Site name: City of Pittsville Municipal Well PMW-6 Investigation

Site location: Pittsville, Wisconsin

Date of study: 2002

Hydrogeological setting: PMW-6 is a municipal water supply well constructed on 8/30/99. The soil consists of sand and gravel to 42 feet below ground surface, underlain by granite to 300 feet. PMW-6 can produce approximately 105 gallons per minute.

Well construction: The well is constructed with 61 feet of grouted 8-inch steel casing followed by an open borehole. The well has a dedicated pump that was removed prior to the PDB sampling.

Contaminants of concern: A raw water sample taken from PMW-6 in early March 2001 contained benzene at concentrations exceeding state standards and maximum contaminant levels. The well site investigation report and wellhead protection plan showed no indication of a VOC source within a reasonable distance from the site.

Remedial operations: The well was temporarily taken off line. The well was put back on line after sampling confirmed remedial measures were adequately addressing the elevated benzene. The remediation system consists of two air-stripping towers (initially installed to address elevated iron concentrations) and carbon polishing.

Points of contact: Jennifer J. Ronk, Applied Environmental Solutions, Inc. N62 W37644 Parkview Drive, Oconomowoc, WI 53066, jennifer@AppliedEnvironmentalSolutions.net, 414-331-5570; Tom Hvizdak, Wisconsin Department of Natural Resources, 473 Griffith St., Wisconsin Rapids, WI 54494, hvizdt@dnr.state.wi.us, 715-421-7850

Costs: PDB samplers were chosen for sampling at this site because they provide a reliable method of collecting samples from the identified fracture zones. The samplers are easy to install, samples are easy to collect, and only limited investigative-derived waste is generated. While a cost/benefit analysis was not completed, this method is less expensive than a more traditional approach of installing packers in the borehole and pumping from the selected zones.

Regulatory status/approval: PDB samplers have not been formally approved in Wisconsin for LTM. However, this method was approved by the Wisconsin Department of Natural Resources at this site as meeting the screening-level DQOs.

Narrative: PMW-6 is completed in fractured bedrock. Samples collected from the municipal well had reported benzene concentrations above state and federal drinking water standards. The source of the benzene is unknown. To evaluate the source of the benzene contamination, the borehole was taped with a video camera to locate fracture zones in the borehole. A colloidal borescope was then used to evaluate the groundwater flow velocity in the fracture zones. Based on the results of this investigation, several primary fracture zones were identified. PDB samplers were then deployed at the levels of the fracture zones in an attempt to identify the zones that were contributing the highest contaminant loads.

The resulting groundwater samples did not have reportable concentrations of benzene. However, they did have reportable concentrations of chloromethane in a distinct concentration gradient, and concentrations increased with depth. Chloromethane can be a by-product of chlorinating a well and has a specific gravity greater than 1.

Based on the results of the PDB sampling, Applied Environmental Solutions concluded that the benzene previously reported in the well is present only when the well is being actively pumped. Subsequent sampling confirmed this result. Based on the chloromethane gradient, it was hypothesized that the majority of the water produced in the well was from a shallow fracture zone. Therefore, when the well was chlorinated, the dense chloromethane sank to the bottom of the well and stagnate while fresh water was being contributed from above.

Based on these results, there are two fracture zones that are suspected to be contributing to the reported benzene contamination in PMW-6. Using the information collected to determine the depth and orientation of these fracture zones, locations are currently being chosen for piezometers. These piezometers will be used to aid in the ultimate identification of the source of the benzene.

Site-specific references: The project is still in the investigative stage, and final documents have not yet been produced.

6.3 Performance Monitoring Using PDB Sampling

Site name: Somersworth Municipal Landfill Superfund Site
Site location: Somersworth, New Hampshire
Date of study: 2001
Hydrogeological setting: About 15–75 feet of sand and gravel overlie fractured bedrock. Groundwater flows NW through the overburden and WNW through bedrock.
Well construction: There are 30 wells at the site, most of which have 2-inch diameters.
Contaminants of concern: PCE, TCE, *cis/trans*-1,2-DCE, 1,1-DCE, and benzene
Remedial operations: A zero-valent iron permeable reactive barrier is in place at the downgradient edge of the landfill. LTM for VOCs is conducted three times a year and will continue for decades.
Point of contact: Karen Berry-Spark, GeoSyntec Consultants, Inc., 130 Research Lane, Suite 2, Guelph, Ontario N1G 5G3, Canada, kberryspark@geosyntec.com, 519-822-2230

Costs: Savings are estimated at $8,000 per sampling event even without considering waste disposal cost savings. Implementation costs of about $18,000 were recovered in less than three sampling events.

Regulatory status/approval: The New Hampshire Department of Environmental Services and EPA have approved use of PDBs for LTM at the site. Twenty-eight wells have been regularly sampled using this technology since the winter of 2001.

Narrative: A comparison study of PDB and conventional purge sampling was conducted at the 26-acre Somersworth Landfill site to demonstrate the appropriateness of PDBs for LTM at the site. Comparability was confirmed for 20 of the wells. Poor comparability of the data at the remaining three wells was attributed to the nonuniform distribution of VOCs in bedrock fractures at the depths and does not appear to be related to the geochemical environment of the permeable reactive barrier or the landfill. PDBs are currently being used to monitor the performance of the zero-valent iron permeable reactive barrier at this site.

Site-specific references: *Performance Monitoring Using PDB Samplers at the Somersworth Superfund Site*, RDTF Permeable Reactive Barriers Action Team Meeting, November 6–7, 2002, Washington, D.C.

7. SUMMARY AND RECOMMENDATIONS

PDB sampling technology has been validated by both laboratory and field tests. Although it is not capable of meeting all types of monitoring needs at remedial sites, specific applications of this technology can be effective both technically and economically. No regulatory issues have been identified that would restrict the application of PDBs in technically appropriate situations.

The ITRC Diffusion Sampler Team makes the following recommendations regarding the application of PDB sampling to LTM. It is worth noting that many of these recommendations have broad application to all groundwater sampling techniques and are not restricted to PDB sampling.

1. PDB sampling is as valid as low-flow and other conventional methodologies for sampling certain VOCs, and regulators should actively consider the use of this technology where appropriate. Results obtained from each of these sampling methods may differ. As with other sampling technologies, PDB sample collection must be matched to site-specific DQOs.

2. PDBs may indicate contaminant concentrations higher or lower than those indicated by other sample collection methods. Therefore, it is essential that all parties involved in the implementation of PDBs at regulated sites identify and agree on DQOs, data evaluation techniques, and data end uses before actual PDB deployment takes place.

3. Potential vertical variations in VOC concentrations (stratification) should be considered when determining placement of PDBs in a well. For saturated well screens 5 feet or less in length, a single 18-inch-long PDB should suffice to characterize the saturated screened interval. In general, if PDBs are used to investigate vertical concentration stratification, an 18-inch-long PDB should represent no more than 5 feet of a saturated screened interval or borehole.

4. If a well has a saturated screened interval or open borehole of 20 or more feet, it is recommended that a flowmeter or other comparable means be used to assess vertical flow, unless data exist to argue against it. For screened well intervals less than 20 feet, an assessment should be considered if other site data suggest that significant vertical flow may exist.

5. Side-by-side comparisons of sampling technologies may be necessary to establish the applicability of PDB sampling. In wells where there has historically been little variation in contaminant concentration and groundwater elevation, comparison of PDB sampler results to the historical record may provide enough information to determine whether PDB sampling is appropriate for the well.

6. The deployment of a single PDB sampler should be made with site-specific DQOs in mind. Deployment may be at a depth corresponding to the zone of highest contaminant mass flux or highest concentration or at a depth of average concentration within the well.

7. Reprofiling wells or changing the vertical location of an established PDB monitoring point is not necessary unless there is evidence to suggest that there have been changes in contaminant transport, hydrodynamics, or well characteristics since the initial profile was obtained.

8. The recommended minimum equilibration period for PDBs is two weeks for water temperatures above 10°C. No maximum deployment period has been identified, but PDBs have been successfully left in wells for three months and longer.

9. PDB sampling may be used for compliance purposes, including sentinel well monitoring and site closeout. If PDBs are used in sentinel wells with saturated screen or borehole lengths greater than 5 feet, multiple PDB monitoring points are recommended.

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APPENDIX A

Acronyms

ACRONYMS

CCAFS	Cape Canaveral Air Force Station
CMS	(RCRA) corrective measures study
COC	contaminant of concern
DCE	dicholoroethene
DNAPL	dense, nonaqueous-phase liquid
DoD	U.S. Department of Defense
DOE	U.S. Department of Energy
DQO	data quality objective
DSIC	Diffusion Sampler Information Center (ITRC Diffusion Sampler Team Web site)
EC	electrical conductivity
EPA	U.S. Environmental Protection Agency
ITRC	Interstate Technology & Regulatory Council
LDPE	low-density polyethylene
LTM	long-term monitoring
MTBE	methyl *tert*-butyl ether
NFA	no further action (required)
NPV	net present value
ORP	oxidation-reduction potential
PCE	perchloroethene (tetrachloroethene)
PDB	polyethylene diffusion bag
POC	point of contact
RCRA	Resource Conservation and Recovery Act
RFI	RCRA facility investigation
RL	reporting limit
RPD	relative percent difference
QA/QC	quality assurance/quality control
TCE	trichloroethene
USGS	U.S. Geological Survey
VOC	volatile organic compound

APPENDIX B

Recommendations Keyed to Document Sections

Matrix of Recommendations and Applicable Sections

Recommendation	Applicable sections														
	1.1	1.2	1.3	2.1	2.2	2.3	2.4.1	2.4.2	2.4.3	2.5	3	4.1	4.2	4.4	4.5
1. PDB sampling is as valid as low-flow and other conventional methodologies for sampling certain VOCs, and regulators should actively consider the use of this technology where appropriate. Results obtained from each of these sampling methods may differ. As with other sampling technologies, PDB sample collection must be matched to site-specific DQOs.	X	X	X	X	X		X	X	X			X	X		X
2. PDBs may indicate contaminant concentrations that are higher or lower than those indicated by other sample collection methods. Therefore, it is essential that all parties involved in the implementation of PDBs for LTM at regulated sites identify and agree on DQOs, data evaluation techniques, and data end use before actual PDB deployment takes place.		X	X	X			X			X			X		
3. Potential vertical variations in VOC concentrations (stratification) should be considered when determining placement of PDBs in a well for LTM. For saturated well screens 5 feet or less, a single 18-inch-long PDB should suffice to characterize the saturated screened interval. In general, if PDBs are used to investigate vertical concentration stratification, an 18-inch-long PDB should represent no more than 5 feet of a saturated screened interval or borehole.							X			X					
4. If a well has a saturated screened interval or open borehole of 20 or more feet, it is recommended that a flowmeter or other comparable means be used to assess vertical flow, unless data exist to argue against it. For screened well intervals less than 20 feet, an assessment should be considered if other site data suggest that significant vertical flow may exist.								X							

Recommendation	Applicable sections														
	1.1	1.2	1.3	2.1	2.2	2.3	2.4.1	2.4.2	2.4.3	2.5	3	4.1	4.2	4.4	4.5
5. Side-by-side comparisons of sampling technologies may be necessary to establish the applicability of PDB sampling to a well. In wells where there has historically been little variation in contaminant concentration and groundwater elevation, comparison of PDB sampler results to the historical record may provide enough information to determine whether PDB sampling is appropriate for the well.		X										X	X		
6. The deployment of a single PDB sampler should be made with site-specific DQOs in mind. Deployment may be at a depth corresponding to the zone of highest contaminant mass flux or highest concentration or a depth of average concentration within the well.							X			X					
7. Reprofiling wells or changing the vertical location of an established PDB monitoring point is not necessary unless there is evidence to suggest that there have been changes in contaminant transport, hydrodynamics, or well characteristics since the initial profile was obtained.							X								
8. The recommended minimum equilibration period for PDBs is two weeks for water temperatures above 10°C. No maximum deployment period has been identified, but PDBs have been successfully left in wells for three months and longer.						X					X				
9. PDB sampling may be used for compliance purposes, including sentinel well monitoring and site closeout. If PDBs are used in sentinel wells with saturated screen or borehole lengths greater than 5 feet, multiple PDB monitoring points are recommended.														X	

APPENDIX C

Screening Worksheet for PDB Implementation

Screening Worksheet for PDB Implementation

A negative answer to any of the following questions will require further action or investigation before PDB samplers can be deployed. If all answers are affirmative PDB, sampling is likely to be a viable option for the site.

Question	YES	NO
1. Is sampling being done for long-term groundwater monitoring?		
2. Have the groundwater contaminants at the site been fully characterized?		
3. Is groundwater sampling at the site focused on VOCs?		
4. Can all target analytes at the site be expected to be taken up by PDB samplers? (Section 1.1, Table 1-1 and Section 4.2.2, Table 4-1)		
5. Is groundwater temperature anticipated to be above 10°C (50°F) during all sampling events?		
6. Have you discussed the potential use of PDB samplers with regulators?		
7. Are site regulators familiar with PDB sampling technology, and will they allow the data to be used for the same purposes as those obtained by conventional sampling?		
8. Are the monitoring wells to be sampled in an area where there is sufficient groundwater velocity? Low groundwater velocity can result from either a low hydraulic conductivity or a low hydraulic gradient.		
9. Are the monitoring wells currently free of dedicated pumps or other sampling equipment?		
10. Has a cost analysis shown PDB samplers to offer a cost savings compared to current sampling techniques?		

APPENDIX D

Survey of State Regulators

Diffusion Sampler State Regulator Survey, May 2003

√ = yes; N = no; C= conditional; D= don't know; na= no answer

States (23)	AL	AZ	CA	CO	FL	IN	KS	KY	MA	ME	MO	NE	NJ	NM	NV	NY	OR	PA	RI	SC	TN	TX	VT
Responses (54)	1	1	11	2	2	1	1	2	1	1	1	1	13	1	1	2	1	2	2	2	3	1	1
In your state is there currently guidance with respect to PDB technology?	N	N	2√ 7N 1D	1N 1D	1√ 1D	N	√	2N	N	D	N	D	8√ 2N 1D	N	N	2N	N	2N	1√	1√ 1N	1√ 1N 1D	N	√
From your own perspective, as well as your perception of your department or agency, do you feel that any rules or regulations could hinder the implementation of PDBs for groundwater monitoring?																							
• State rules or regulations	N	N	1√ 4N 6D	1N 1D	1N 1D	D	D	2N	N	N	N	N	2√ 8N 2D	N	N	2N	N	1√ 1N	2N	1N 1D	3N	D	N
• Federal rules or regulations	N	N	6N 5D	1N 1D	2D	D	D	2N	N	N	N	N	5N 8D	N	N	2N	N	1N 1D	1N 1D	1N 1D	2N 1D	N	N
Are there sites in your state that are currently using PDB technology?	√	N	11√	2√	2√	√	√	2√	√	√	√	√	13√	√	√	2√	√	2D	2√	2√	3√	√	√
Are there sites in your state that are currently considering the use of PDB technology?	√	√	11√	2√	1N 1D	√	D	2√	√	√	√	√	13√	√	√	2√	√	2D	2√	2√	3√	√	√
Assuming all contaminants of concern would be adequately monitored with PDBs, do you feel they could be implemented for …																							
• Long-term monitoring?	√	√	8√ 3C	1√ 1C	1√ 1C	√	√	1√ 1C	√	√	√	√	12√ 1C	√	√	1√ 1C	√	1√ 1C	1√ 1C	2C	3√	√	√
• Compliance sampling?	√	C	6√ 3N 2C	√ 1C	1√ 1C	√	√	1√ 1C	√	√	C	√	9√ 1N 3C	C	√	1√ 1C	√	2C	1√ 1C	2C	1√ 1N 1C	C	√
• Sentinel well plume detection?	√	C	5√ 5C 1na	2C	2C	C	√	1√ 1C	√	√	C	√	6√ 4N 3C	√	C	2√	C	2√	1√ 1C	2C	3√	C	√
• Site closeout?	C	C	5√ 6C	2C	2N	C	C	1√ 1N	√	C	C	C	4√ 5N 4C	√	C	1√ 1C	√	2C	2C	1N 1C	1√ 1N 1C	N	C
• Site characterization?	C	√	6√ 4C 1na	1N 1C	2N	C	C	2C	N	C	N	√	8√ 5C	√	√	1√ 1C	√	2C	2C	2C	2√ 1C	N	C

APPENDIX E

Response to Technical Comments

NOTE: Specific pages and line numbers mentioned in the comments refer to a review draft of this document. In many instances those references do not correspond to the published version.

EPA Groundwater Forum PDB Workgroup

1. Table 1-2: Clarification is needed regarding how this table is to be used, perhaps more importantly whether analytes that appear here but are not on Table 1-1 should undergo laboratory testing to determine just how good (favorable) PDBs are for monitoring these analytes. See also comment # 14.

   Table 1-2 was included to indicate that PDBs can be successfully used to sample compounds beyond those in Table 1-1 that were subjected to laboratory tests. The "favorable" compounds in Table 1-2 have shown good correlation with other sampling methods, which suggests that they are good candidates for PDB sampling. Laboratory testing of these compounds would, of course, provide more direct evidence of their suitability. For clarity the word "favorable" has been replaced, and the latter table has been moved to Section 4.2.2 as Table 4-1.

2. Section 2.8: It is unclear whether the discussion of PDB deployment with dedicated pumps is related just to the testing of PDBs suitability in individual wells, the long-term use of both devices in a well for different types of analytes, or both. Note that the dedicated pumps that are commonly used are those that fit in 2-inch wells. However, smaller diameter bladder pumps are now being manufactured (down to 3/8-inch diameter), so the apparent use of both in a well may no longer be an issue.

   The use of PDBs in wells with dedicated pumps is primarily of interest where side-by-side comparison sampling is desired. This might be required by regulators at some sites or for particular wells. We will note the availability of smaller pumps. However, many existing configurations employ larger pumps.

3. P.4, L.24: Clarify what time period the sample concentration is supposed (thought) to represent (see Table 1-3).

   Table 1-3 has been revised to indicate the sample represents a time-weighted average concentration of the 1-4 day period prior to sample recovery.

4. P.4, L.35. Please provide the basis for the recommendation that wells with 20 feet or longer well screens or open hole are tested for vertical flow.

   The literature confirms that vertical flow in wells is not uncommon, and it is recognized that vertical flow can be of concern in wells with screens or open intervals much less than 20 feet. Wording has been added in Section 2.4.2 to indicate that the selection of the 20-foot interval as a point of differentiation was an arbitrary, although collective, decision. Professional judgment should prevail whenever there is reason to believe vertical flow may be present in a well regardless of the well screen length.

5. P.5, L.18: If the guidance is primarily about using PDBs as stand-alone samplers for VOCs, clarify what the function of the pump is.

   Please refer to the response to Comment #2.

6. P.6, L.4: Clarify why sentinel wells should be monitored by multiple PDBs (for all sampling events?).

   Multiple PDB samplers are recommended in a sentinel well when the well screen or saturated portion of the borehole is greater than 5 feet, following the general recommendation that a single PDB should not represent more than 5 feet of water column. In an uncontaminated sentinel well, contaminants might enter the well in a stratified manner that could elude a single PDB. Therefore the conservative approach for a sentinel well would be to deploy multiple bags as appropriate. Section 4.4 has been revised to clarify this point.

7. P.10, L.26: Change "with which there was favorable field experience" to " for which there were sufficient field data." Existing text suggests unfavorable data were not used.

   The designation of a compound as having "favorable" or "unfavorable" results was not driven by a sufficiency of data. The criteria used in the referenced study are discussed in Section 4.2.2. The text has been reworded.

8. P.11, Table 1-2: The table indicates that bromoform and napthalene had "less favorable results in field sampling comparison study," yet these analytes are shown as having "favorable laboratory diffusion testing results" in Table 1-1. This is likely to be confusing to the reader. Some discussion is needed with regard to which table should "carry more weight" in guiding the reader. This reviewer believes that while the data in Table 1-2 are instructive, they should be viewed as "preliminary." These data should not be used as a substitute for laboratory testing to evaluate PDB performance for specific VOCs, as shown in Table 1-1.

   The intent of the table of field sampling results was to indicate that the list of analytes to which PDB sampling is applicable is larger than those tested in the laboratory (Table 1-1). The field data also show that site- or well-specific conditions may adversely affect PDB performance for some analytes that performed well in laboratory testing. Laboratory studies indicate the ability of an analyte to diffuse through the PDB, which is a requirement for effective PDB sampling, but field conditions introduce other confounding factors that are not accounted for in the laboratory. To lessen any confusion between these two tables, the field data has been moved to Section 4.2.2 as Table 4-1.

9. P.11, L.8: Change first part of sentence to "Sand-tank experiments by Britt (2003) seem to show significant dispersion of solutes along a well bore under conditions of uniform lateral flow."

   This sentence was removed during document revision.

10. P.11, L.11-16: The intent of the discussion regarding Figure 1-2 is not apparent. Either the last sentence should be omitted or the thought process behind the last statement should be clearly presented. As it stands, the discussion provides two possibilities to explain the data in Figure 1-2, then dismisses the second possibility without explanation.

    The last sentence has been removed.

11. P.20, L.14: It is stated here that well with screen lengths or open boreholes of 20 feet or longer should be tested for vertical flow. Yet, on page 18, it is recommended that any well with greater than 5 feet of well screen or open borehole be evaluated for contaminant stratification. The results of stratification can only be appropriately evaluated within the context of knowing whether or not vertical flow is occurring. These two recommendations should apply to the same well screen/open borehole length.

    It is true that the presence of vertical flow would affect interpretation of PDB sampling results. Explanation of the 20-foot criterion for conducting vertical flow testing is addressed in the response to Comment #4. The criterion of investigating for stratification when the well screen or borehole is greater than 5 feet in length relates to the length of the typical PDB in relation to the open interval. Professional judgment should prevail at any well where there is data to support another approach.

12. P.20, Sec.2.5: In this or some other appropriate section, discuss procedures to be used to suitability of PDBs and determination of PDB deployment depths in new wells where there are no sampling information.

    If there are indeed no sampling data, then the site investigation is probably at a preliminary level, and PDBs would not be appropriate. If the wells are part of a new LTM program, then the decision analysis presented in Section 3 would be a good starting point. The technical requirements are already covered in Section 2. The determination of deployment depths is specifically addressed in Section 2.5.

13. P.24 and Appendix C: This decision analysis is intended to provide the basis to determine whether or not PDB samplers might be suitable for a site. Although there is a statement that recommends that before deploying the samplers the use of the samplers is discussed with the regulators and a cost comparison is made, nowhere is it stated that there may be a need to determine contaminant stratification and vertical flow prior to determining how many and where the samplers are deployed. The document does discuss this issue, but it is strongly recommended that it is reiterated here so that a person unfamiliar with the various issues associated with the use of the samplers does not proceed strictly on the basis of "yes" from this list of questions.

    The decision analysis is a preliminary screening tool to quickly screen sites that warrant further consideration for using PDB sampling. It is not meant to be a guide for how to implement PDB sampling. The potential necessity for additional work to evaluate stratification and/or vertical flow is something to be considered before actual

implementation. The cost analysis model in Section 5 can incorporate these costs. A note to this effect has been added to the text box associated with question #10 in the decision analysis.

EPA National Risk Management Research Laboratory

14. Pages 3, Lines 30-31 and Page 10, Lines 12-14: It would be informative to users to offer more detail of the mechanism of the PDB and why "Metals and other inorganic compounds will not diffuse across the membrane." In the literature available on PDBs, this is only stated, but not explained—just simple diffusion. Parsons study states that PDBs can't be used for sulfate. However, current research I am conducting showed sulfate in some samples collected with PDBs although they were not as high as those obtained with conventional samplers. Also, there was no consistent trend among the data.

    This document is focused on the implementation of PDB sampling rather than the specific mechanism(s) by which they work. More technical information may be found in the *User's Guide* (Vroblesky 2001a) and related articles.

15. Page 4, Line 21 and Page 17, Line 36: Please define "colder water" (i.e., <10°C).

    The text has been clarified.

16. Page 4, Lines 23-24 and Page 18, Lines 1-4: Some discussion should be included regarding consistency of time deployed for data comparison purposes. Also, a statement here that PDB samples are "time averaged."

    There is no need for strict consistency in PDB deployment times for comparative purposes or to obtain comparable results. The essential requirement is that the deployment time allow for contaminant equilibration and well stabilization. The recommended minimum deployment time is two weeks. Beyond that, at least up to intervals of three months, there is no effect. The contaminant concentrations in the PDB will generally be a time average of the one to four days prior to collection. A PDB deployed for two weeks should produce the same results as one deployed for two months if they are retrieved the same time.

17. Page 5, Lines 5-10 and Page 21, Lines 6-10: While I understand this section, the wording is initially confusing. Some rewording or clarification of ". . . a PDB remain submerged during the sampling period." The PDB should be deployed in a location to allow for fluctuations in the water table and still be submerged.

    This passage has been reworded for clarity.

18. Page 5, Line 18 and Page 22 Section 2.8: Why would a PDB be used if a dedicated pump is in place? If it can be justified, please explain. Use of a PDB in conjunction with a pump would only increase sampling costs.

Please refer to the response to Comment #2.

19. Page 6, Line 8: Should this read ". . .was to identify **any** (rather than **and**) rules or regulations . . . "?

This typographical error has been corrected.

20. Pages 12, 13, 14, Figures 1-2, 1-3, and 1-4: Fonts on all three graphics should be the same (i.e., axes, etc.).

New figures have been substituted.

21. Figure 1-2: Statement "The pump produces a mixture of contaminated and uncontaminated water." This statement also be included in Figure 1-3. While it is true that more of an averaged value is obtained with pumps, this effect is less with PDBs although they don't seal off a specific zone within a screened interval, particularly in a 4-inch well (PDB diameter is 1.25 inches).

New figures have been substituted.

22. Page 14, Line 20: ". . . over the past decade" should read ". . . over the past several years or decades" (either works). It has been much longer than the past decade.

The passage has been changed.

23. Page 15, Lines 2-7: Provide references.

NOTE: Comment refers to Section 1.2.1.

24. Lines 24-29: ". . .a PDB sample represents a vertically restricted source. . ." is not a completely true statement, nor are lines 28 and 29 completely true (see above comment on Figure 1-2). If justification is available for these statements, please provide references.

This description has been revised.

25. Page 16, Table 1-3: Why is the section "Low Flow" column 2 indented with a "•" in front (with no explanation)? Also the last sentence ("In a screened. . .") should also be included in the section on PDBs as this is true for both methods.

The formatting of the table (now Table 1-2) has been corrected and the text revised.

26. PDB section, column 3: "Time-integrated average of 1-4 days prior to recovery"—the statement has been made that minimum deployment time is 2 weeks for most constituents. How is the "1-4 days" determined? Please reference.

Laboratory experiments (Vroblesky and Campbell 2001) have shown that the contaminant concentrations in the PDB will equilibrate with the exterior solution within 48 hours for many compounds that are amenable to PDB sampling. However, the equilibration time is compound dependent, and the diffusion times for compounds such as vinyl chloride and 1,1-dichloroethene are much longer. Depending on the analyte, the PDB sample represents a time average of the one to six days prior to collection. The recommended minimum deployment of two weeks provides adequate time for both contaminant equilibration and well stabilization. The estimate of a one to four day average of contaminant concentrations (probably better stated as one to six days) is merely an estimate and indication of the dynamic nature of the sampling.

27. Page 18, Lines 32-33:Please provide references for this section.

    The specific sentence referenced (in Section 2.4.1) concerns the sample obtained by purge sampling. There is no specific reference cited, but the statement represents a consensus opinion of the team.

28. Page 20, Sec. 2.4.2: Please provide references for this section.

    The section referenced concerns the potential for vertical flow within a well. This section has been revised and references added.

29. Page 21, Lines 13-18: Please provide references for this section.

    Section 2.5 concerns determining the appropriate deployment depth for PDB samplers. Although there is no specific reference cited, the guidance provided is based upon the field experience of team members and represents a consensus opinion.

30. Page 22, Line 5: Can it be verified that longer bags may exhibit concentration variability along its length? Some mixing will occur simply in retrieving the PDB and then during sampling.

    Anecdotal evidence indicates that stratification within a long PDB can occur. Retrieval could induce mixing, depending on the particular circumstances. Some manufacturers insert a mixing ball into long PDBs to encourage efficient mixing upon retrieval.

31. Page 30, Line 22: ". . . similarly representative samples." What is a representative sample? Any references would be helpful.

    The term "representative" is often ill-defined; it has been removed. After all, every sample is representative of something. It is the job of the investigator to select a sampling method that will provide meaningful data in light of specific DQOs.

32. Page 31, Lines 22-26: Please provide references.

That a target analyte can behave differently in two different wells at the same site has been documented in field reports. See McClellan (2000) and Parsons (2003).

33. Page 31, Lines 35-38: [provide] references to verify the 50 percent difference in duplicate samples.

The specific reference to 50% has been deleted. However, the precision associated with analysis of field samples is variable. Selection of a low RPD criterion may result in an unfair test of the comparability of sampling techniques.

34. Page 31, Lines 38-41: Please explain what is meant by ". . . environmental conditions are worse than originally thought" and offer more explanation regarding impact on PRPs and decision making.

This sentence has been reworded. The salient point is that sampling results can differ and must be interpreted within the context of the sampling method.

35. Page 34, Line 10,12: Proper reference for Vroblesky and Pravecek, 2002.

The correction has been made.

36. Page 36, Line 6: The question asked to be paraphrased and not quoted. Where is the reference to Figure 4-1? Figure 4-1 on page 37 should follow this section on page 36.

This paragraph has been modified and reference to the figures clarified.

37. Page 38, Lines 5-7 and Figure 4-2: It is misrepresenting the states' responses to include only one positive response to closeout while a majority may have rejected it.

There is no best way to condense multiple responses from a given state. The approach taken—to display the response most favorable to PDB sampling—is not a misrepresentation but one alternative that was clearly presented as such. The reader is free to consult the data in Appendix D to conduct his own analysis. The caption for Figure 4-2 has been modified to call attention to the assumptions stated in the text.

38. Figure 4-2 Caption: Too many prepositions. Reword "PDB survey results from 23 states indicting regulators acceptability to specific uses. . . ."

The caption has been reworded.

39. Page 43, Table 5-2: First column width need adjusted. What are the two notes at the bottom of the table referring to? There is no matching symbol in the table itself.

Formatting changes have been made and the symbols entered.

40. Page 45, Lines 2-3: Please clarify ". . . reduce the implementation cost by a factor of 50 percent."

The sentence has been modified to clarify that PDB costs would be approximately half that of conventional sampling.

41. Page 56, Lines 10-12: This reference is not used in the text - delete.

The Vroblesky and Campbell (2001) study is now referenced in Section 2.3.

42. Page 59: Appendix B and Table B-1 are not referenced in the text. This should be done with some discussion on the table. Also, why are the sections listed as ".1, .2, etc.? Shouldn't it be 1.1, 1.2, etc.? The last column of the entire table should have a border.

Formatting on the draft copy did not display the full margins. The integer number refers to the recommendation number, consistent with the summary in Section 7. Section referrals do include subsections. The table formatting has been changed for clarity.

43. Page 67: First section, the "✓" should moved down under IN. KS is left blank - please fill in.

These changes have been made.

State of California

44. The title of the document is misleading. The Interstate Technology & Regulatory Council (ITRC) should stay only with the technical guidance (and not the regulatory guidance). Without legal advice the ITRC cannot prepare the regulatory guidance. The title of document should be revised to read, "Technical Guidance for Polyethylene Diffusion Bag Samplers to Monitor Volatile Organic Compounds in Groundwater."

The principal objective of ITRC technical work teams is to develop guidance documents to meet the information needs of regulatory staff, technology vendors, and environmental consultants. These products help state environmental agencies gain valuable technical knowledge and develop consistent regulatory approaches for reviewing and approving specific technologies. State regulators lead ITRC technical teams, which rely on broad-based participation from federal agencies, industry, academia, and other stakeholders in building collective knowledge and collaborative products. It is the responsibility and purview of the individual states to develop official policy and regulatory guidance on all matters within their political jurisdiction.

The title of this document correctly reflects its contents and purpose. It not only provides technical guidance but also identifies regulatory issues and suggests possible approaches or solutions.

45. The document emphasizes the long-term monitoring (LTM) with the polyethylene diffusion bag samplers (PDB). The document should be presented in such a way that the PDB can be used for groundwater monitoring (both short and long term). All the references to LTM should be replaced with "monitoring."

PDBs have a number of applications under various sampling scenarios. The emphasis of this document is indeed upon the use of PDB sampling for long-term monitoring, as stated in the introduction. Interest in PDB sampling is often related to LTM because of the potentially large cost savings in that application.

46. Executive Summary, page iii, 3rd para: "No regulatory or policy issues were identified that would restrict the application of PDBs in technically appropriate situations." This sentence is misleading and should be deleted from the document.

A primary purpose of the survey of regulators was to identify regulatory hindrances to the appropriate use of PDBs for groundwater monitoring. Obviously there are technical limitations in using PDBs; for example, some target contaminants are simply not amenable to PDB sampling. However, responses to the survey did not, in fact, identify any regulatory obstacles that would preclude the use of PDB sampling under appropriate conditions.

47. Section 1.1, Description, Table 1-1: The table refers to "xylenes." However, the referenced publication uses "total xylenes."

The correction has been made.

48. Section 1.1, Description, page 2, 3rd para: "Sand-tank experiments by Britt (2003) seem to show widespread dispersion of solutes through a well bore under conditions of uniform flow." This statement should be deleted from the document for the following reasons: The so-called in-well mixing of groundwater contamination has not been proved by any analytical model studies. The Lab Model (Sand-tank) study consists of 4-inch-wide screen for the height of the tank (both upstream and downstream side) is a rectangular screen. A no-flow boundary exists on the other two sides of the so-called well bore. Such a setup cannot remotely represent well bore. In fact, the setup represents a rectangular gate with a screen. The conventional definition of pore volume for a well bore does not apply to the Lab Model study. The Lab Model study cannot represent any field conditions.

Although we are retaining a reference to the work as a professional presentation, we have deemphasized it and clarified some of the potential uncertainties. Section 1.2 now notes that "...observations from a laboratory study using a sand-tank model in approximately two dimensions (Britt and Tunks 2003) imply that diffusive mixing may be an important consideration."

49. Section 2.4.1, page 9, 3rd para: "For profiling purposes, as a general rule, a single 1.5- to 2-foot-long PDB. . . ." Delete the reference to 2-foot PDB. The Executive Summary indicates 1.5-foot PDB. The PDB length should be maintained consistently through out the document.

    PDBs are available in many sizes and can be custom made. Lengths of 5 feet and more have been deployed successfully. The point being made here is that a single PDB in the range of 18–24 inches length should not represent more than 5 feet of vertical well space. The text has been changed.

50. Section 2.4.2: Please include reference to "flowmeter."

    Please see the response to Comment #28.

51. Section 2.4.3, Horizontal Flow: "PDB samplers require sufficient groundwater flow . . . ." Diffusion plays important role with the PDB and not the groundwater flow. Moreover, the phrase "sufficient groundwater flow" is more confusing. Can any one define what is sufficient (or insufficient) groundwater flow? This section needs revision.

    Some groundwater flow is necessary for the PDB sample to represent groundwater conditions rather than stagnant well conditions. This is why conventional purge sampling methods were originally developed. There is no precise definition of what constitutes sufficient flow. Some guidelines, however, are provided in the discussion of item #8 in Section 3.

52. Section 7, Summary and Recommendation Item 1: "PDB sampling is as valid as . . . and regulators should support the use of this technology where appropriate." It is not the regulator's responsibility to support any technology. The role of regulators is to review the technology that can satisfy the requirements of the regulations. The phrase "regulators should support" can be replaced with "regulators should give considerations for . . . ."

    The workgroup was, in fact, using the term "support" in the sense of seriously evaluating PDB sampling at a site on its merits. Certainly there is no suggestion that this technology, or any other, be blindly implemented. The wording has been changed to recommend "active consideration" of PDB sampling.

53. The ITRC Diffusion Sampler Team (DST) should consist of members from various disciplines such as hydrogeologists, hydrologists, geotechnical engineers, and chemical engineers. Various disciplines can bring the best from their profession for the technical guidance.

    Agreed. As Appendix F shows, members of the Diffusion Sampler Team represent a broad spectrum of professional areas and occupational realms. The development of this guidance document, as well as a myriad of other workgroup activities, has benefited immensely from the diversity of backgrounds and views brought to bear on the subject by our membership.

54. [On] page 2 the reference to sand tank experiments should be deleted. The experiment with sand tanks conducted by Britt were two-dimensional and did not account for boundary conditions. If the reference is included the sentence should read: "Two-dimensional experiments by Britt (2003) seem to show widespread dispersion of solutes in sand tanks under conditions of uniform flow."

The text has been modified. Please see the response to Comment #48.

55. The guidance document should mention the net "sock" that is used to hold the bag's shape in the well.

Actually, the "sock" is not used to maintain the shape of the bag but serves as a protective shield against mechanical damage during deployment and recovery. This information has been added to the description in Section 1.1.

56. Section 1.1. The sand tank work by Sandy Britt has not been extensively peer-reviewed and should not be cited within the ITRC document. The observation by Britt of widespread distribution of solutes within a well bore may be an artifact of the experiment design rather than due to dispersion.

The text has been modified. Please see the response to Comment #48.

57. Section 1.2. The work by Parker and Clark (2002) should be mentioned in the ITRC document. Their work supports the conclusion that a PDB sample is a time-weighted average and that analytical differences between PDBs and conventional sampling is due to natural solute variation.

This reference has been added.

58. Section 2.3. This section contains the only reference to biofouling within the entire document. The issue of biofouling should be further explained. If PDBs are biofouled, how should be situation be addressed? Can PDBs still be used for LTM if biofouling occurs? Should the deployment time be decreased to reduce the possibility of biofouling? What degree of biofouling causes a concern? Is the PDB sample still usable if upon retrieval it is coated with slime?

Despite actively seeking such information, the team has found no record of biofouling of PDBs. If biofouling were encountered in a specific situation, it would be cause for concern but would have to be evaluated at that time and in context.

59. Section 4.2.1. A literature reference should be provided for the "50%" number given as an acceptable percent relative difference for duplicate samples.

Please see the response to Comment #33.

60. Section 4.4. For compliance monitoring, the ability of PDBs to yield long-term representative samples should be periodically checked by conducting side-by-side evaluations with conventional or low-flow purging techniques. Likewise, for site closeouts, the PDBs should be checked with conventional techniques before final decisions are made about the achievement of water quality objectives. Hence, for RCRA and CERCLA corrective action, potentially 85% of the groundwater monitoring could be done with PDBs. The first 10% of the groundwater monitoring would be done with conventional techniques to establish a baseline. The next 85% of the samples would be PDBs if the results agreed with the initial baseline. Then, upon the completion of the project, the last 5% of the sampling would be conventional sampling to demonstrate compliance to the water quality goals.

    This is a valid approach. As discussed in Sections 4.1 and 4.2, there are several alternatives. The issues should be explored and decided upon in advance of deployment.

61. Section 4.5. For RCRA interim status facilities subject to groundwater monitoring, 40 CFR Section 265.92 requires semiannual sampling for pH, specific conductance, total organic carbon, and total organic halogen. Likewise, CCR Title 22 Section 66265.97 has a similar requirement for temperature, electrical conductivity, turbidity, and pH at interim status facilities. Hence, this is a federal and state impediment for the use of PDBs at RCRA interim status facilities. However, there is no comparable requirement for RCRA-permitted facilities in both the federal and state regulations.

    The Diffusion Sampler Team does not regard RCRA status as a regulatory impediment, as the related regulations do not preclude the use of PDB sampling. Obviously, as at all sites, specific concerns and requirements will determine whether or not PDB sampling is a useful or economic approach. PDBs can be used in conjunction with other technologies, e.g., as outlined in Section 5.2.3.

62. Section 6. There are other published studies beside Vroblesky (2001) which can be cited as case studies, such as Harte (2002), Parker and Clark (2002), Ballestero et al. (2002), and Gefell et al. (1999).

    The references provided have been added.

63. Section 7, Bullet 9. PDBs should be used for compliance and sentinel monitoring only if the PDBs are periodically checked by conventional methods. Likewise, for site closeout, the PDBs should be checked by conventional methods.

    The team has stated its opinion that PDB sampling is technically valid for compliance and sentinel sampling. The exact requirements need to be negotiated with the cognizant regulatory authority.

64. Comment #61 should be modified to include CCR Title 22, Sections 66265.97(e)13 and 66264.97(e)13 that require temperature, electrical conductivity, turbidity, and pH be sampled each time groundwater is sampled. So, this regulation exists for both interim status and permitted hazardous waste landfills, surface impoundments, waste piles, land farms, and

other facilities to which Article 6 groundwater monitoring requirements apply. 40 CFR section 265.92 also requires annual sampling for chloride, iron, manganese, phenols, sodium, and sulfate.

San Diego County does allow for diffusion bags, but with conditions. See page 5-43 for definition of discrete point-interval sampling that includes PDBs and page 5-52 and 5-53 for the conditions in the attached section of the county's SAM manual. Note: SAM allows closeout sampling with PDBs but requires vertical profiling to be repeated at that time. Also requires sampling depth at highest concentrations for routine monitoring. Must also establish that wells have demonstrated net flow or measured flow through the well.

If I'm not mistaken, I believe that I indicated that San Diego County had included sections on alternative sampling devices that placed restrictions on the use of devices such as PDBs. The manual states that there are better alternatives but that, if used/approved, would require demonstration of a net positive flow through the well screen before being implemented. It recognized that these "passive" devices rely on the positive flow from the aquifer through the screened interval to bring the contaminants to the sampler device (unlike active sampling devices that purge the sampling point).

Please see the response to Comment #61. The suitability of PDB sampling must be decided on a site specific basis. There are technical reasons that PDB sampling is not appropriate for some sampling needs, such as for metals. At the same time, PDBs can be used in conjunction with other technologies, as outlined in Section 5.2.3.

State of New Hampshire

65. Oxygenates such as MtBE, TAME do not diffuse well through the PDB membrane. As a result, this technology is not appropriate for most LUST sites. I think more research needs to be done on alternative membranes if the technology is to be viable for most petroleum sites. The other membrane issue is the inability to get accurate results for naphthalene. The petroleum sites where oxygenates are not a concern typically have naphthalene as a COC. As a result, it is hard to see a petroleum site application for the technology.

    As discussed in Sections 1.1, 2.2, and 4.2.2 of the document (with special reference to Tables 1-1 and 4-1), an acknowledged limitation of PDB sampling is that the polyethylene membrane does not allow rapid diffusion of all compounds. Target analytes are primarily VOCs. Research is currently under way on membranes that can encompass non-VOCs.

66. The report does not have a lot of data in it on how long the PDB samplers can be left in wells. The technology would be desirable as a low-cost replacement for traditional sampling. I would envision the PDB samplers being collected and then a new PDB being put in the well for the next round of sampling. This would avoid the two-trip scenario and is how the technology is likely to be used by budget-conscious consultants. If this becomes a common practice, we would need to know whether the PDB can be left in for up to six months

(semiannual sampling is common) without compromising the sample via biologic growth, etc.

Deployment intervals are discussed in Section 2.3. Current practice often deploys new PDBs at the same time existing ones are retrieved. To our knowledge there are no documented instances of biological fouling or other deterioration of polyethylene membranes during deployments of the length mentioned.

State of Nevada

67. Page 2, paragraph 2: Correlation criteria of 70% were considered favorable. This seems low to me. Additional brief discussion in this section or in an appendix would give greater reassurance to the skeptical regulatory who may be accustomed to 95% levels of statistical significance.

    The results from PDB sampling and other sampling techniques should not be expected to be identical. Comparison of sampling results is discussed in Section 4.2. Details of the specific study in question are available in the full report (Parsons 2003).

68. Page 3, Figure 1-2: The conclusion(s) that should be drawn from this figure is/are not clear to me. I suggest redrawing it, omitting one of the two curves included, or omitting the entire figure. Simply including a reference to the statement that "contamination stratification has been observed" may suffice.

    The figures have been changed to better demonstrate the stratification concepts being discussed.

69. Page 7, Paragraph 1, Last sentence: Change the word "above" to "below" or "following."

    Editorial changes have rendered this comment moot.

70. Page 21: Length of deployment is not included as an issue in this bulleted list; however, it was discussed previously. Was it intentionally omitted?

    The discussion of low correlations has been shifted to Section 4.2.3. The length of the PDB deployment is generally not an issue as long as the minimum equilibration time is provided. Limited data are available on very long deployments (greater than six months). The time lag between PDB and conventional sampling events is mentioned as a potential factor in low correlations, as is water table fluctuation over the deployment period.

71. Page 28, Table 5-2: (a) Is this table labeled correctly? In all cases, the long-term cost of PDBs are HIGHER than conventional costs; however, the cost advantages are of PDB are listed as greater than conventional sampling. (b) How was the last column, "Return on

investment," calculated? It is not clear to me why ID #2 had only a 1% cost advantage. Perhaps including the formulas used as footnotes or in an appendix would suffice.

The column headings for Table 5-2 have been corrected.

The return on investment is calculated by dividing the anticipated cost savings from PDB sampling by the implementation costs. This is calculated for the entire long-term monitoring period and includes the variables associated with each site, such as the number of wells and frequency of sampling. When the number of wells being converted is small, or the remaining monitoring period is short, the return on investment can be low. More detail is available in the original report (Parsons 2003).

72. Page 29, Paragraph 4, Last sentence: Rephrase. The notion that an "overall" reduction in costs was "consistent" despite "significant variability" is confusing to me.

The wording has been changed to clarify the statement.

73. What studies have been done on degradation of the PDB in the environment, and how that may or may not affect the analyses.

No mechanical degradation of the PDB has been found over long deployments or even in contact with pure product. Chemical contamination is not really an issue because the sample equilibrates with groundwater over the deployment interval.

74. [An] item that does not appear to be addressed is seasonal water level variations. It would seem to me that the user of PDBs would need to sample for at least a year with PDBs to understand where the "hot spot" is for each season. Perhaps historical data could be used to estimate the theoretical location of this "hot spot"; however, the document does not seem to address this issue.

It is prudent to analyze data for seasonal trends regardless of the sampling method employed. At some sites the seasonal water levels can vary markedly. Under such circumstances it might take longer to establish clear trends.

75. The document included some discussion about long-term deployment of the samplers; however, there was no discussion about the long-term quality of the wells in which the bags are used. Without purging of the wells, does sediment accumulation become a problem, i.e., does the usability of the wells decrease faster than in wells that are purged as a part of sampling?

Unless the well screen is at the bottom of the well casing, normal purging will not clear sediment from the bottom of a well. Moreover, PDBs will not permit the transfer of particulates into the sample bag. Long-term well quality issues exist independently of the sampling technique.

State of Texas

76. Two compounds on Table 1-1 (bromoform and napthalene), shown under "Favorable laboratory diffusion testing results" are also listed on Table 1-2 under the heading "Less favorable results in field sampling comparison study." Since both of these tables are recommended for use in determining appropriate compounds for use of PDB samplers, this apparent contradiction needs to be addressed in some manner.

    Table 1-1 reflects the results of a laboratory study indicating that both bromoform and naphthalene diffuse readily through the PDB membrane. Table 4-1 (formerly Table 1-2, but now in Section 4.2.2) reflect the specific experience with sampling VOCs in the field, as evaluated according to specific criteria. Less than satisfactory performance was judged against certain criteria, and possible reasons for such performance are detailed in Section 4.2.3.

77. While the discussion under Section 4.5 Survey of State Regulators is useful in describing the different views of state regulators on the acceptability of PDB sampling for certain activities, it does not address why the state regulators held those views, especially where a significant number indicated they would not use PDB sampling for a specific purpose, e.g., closeout and site characterization. A better fleshed-out understanding of regulator concerns could lead to further research needs, etc.

    The survey did allow for comments by those completing it, but such comments were not always provided. A more thorough discussion of the survey results is being prepared separately.

78. On Table 5-2, it appears that the data under the column of "Long-term cost of conventional sampling per well, per event" should actually be under the next column "Long-term cost of PDBs per well, per event" and vice versa. Otherwise, it appears the cost of PDB sampling exceeds conventional sampling costs in every case which is not true.

    These changes have been made.

Commonwealth of Virginia

79. If a "proof of method" demonstration were required, then it seems reasonable to simply deploy both sampling methods in all the wells at a site during the initial sampling. If the analytical results indicated that the paired sampling was within the 30% relative percent difference (RPD) that ITRC notes on page 20, then it is likely that diffusion sampling is viable for the site.

    This is a valid approach. As discussed in Sections 4.1 and 4.2, there are several alternatives. The issues should be explored and decided upon in advance of deployment.

State of West Virginia

80. Page 16: "8. Are the monitor wells to be sampled in an area where there is sufficient groundwater velocity? Low groundwater velocity can result from either a low hydraulic conductivity or a low hydraulic gradient." This should be "monitoring wells," and low velocity can also result from a small quantity of groundwater.

Editorial changes have been made.

APPENDIX F

ITRC Contacts, Fact Sheet, and Product List

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APPENDIX F

HYDRAULIC CONDUCTIVITY CALCULATIONS

Data Set: C:\AQTW\THERMO~1\MW1IN.AQT
Title: MW-1 SLUG IN
Date: 10/05/00
Time: 14:29:21

PROJECT INFORMATION

Company: LAW
Client: Ingersoll-Rand
Project: 12000-0-2050
Location: Louisville, Georgia
Test Date: 10/04/00
Test Well: MW-1

AQUIFER DATA

Saturated Thickness: 27.61 ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

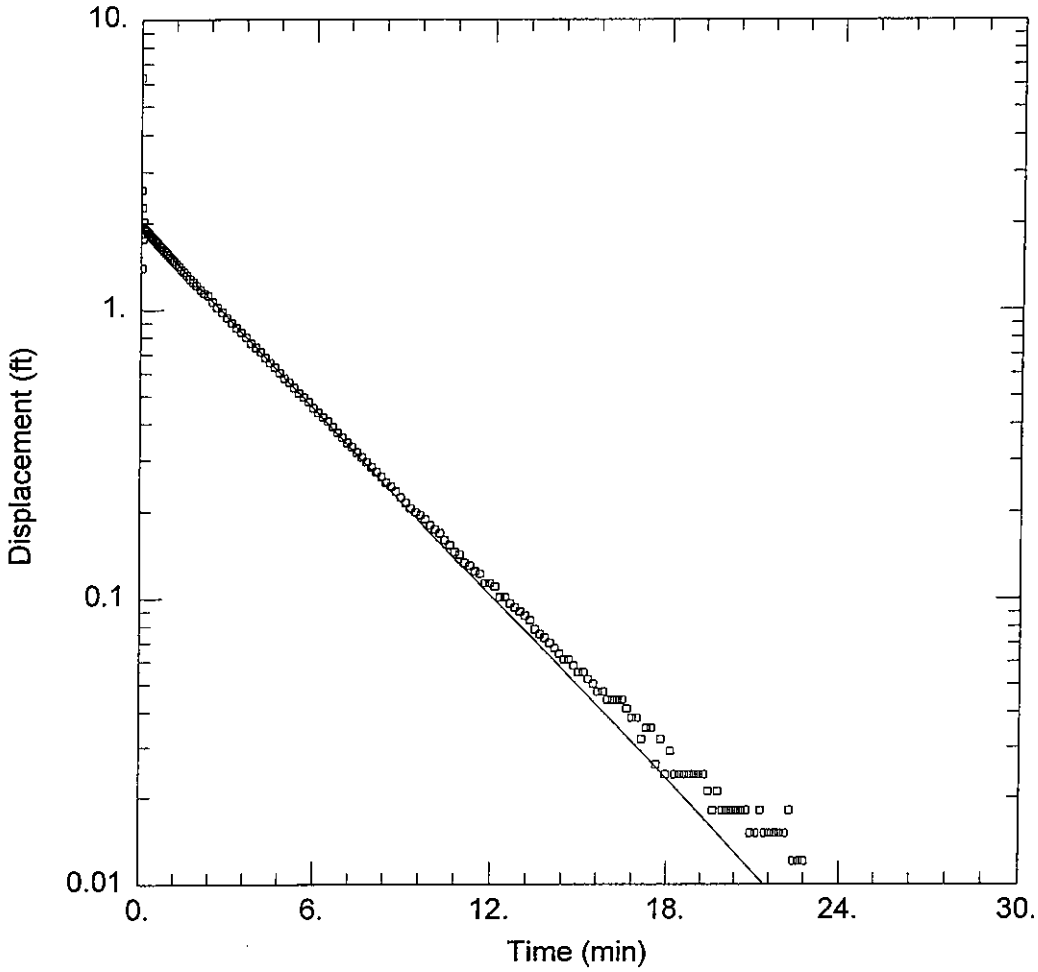
Observation Well No. 1: MW-1

X Location: 0. ft
Y Location: 0. ft

No. of observations: 167

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0117	2.594	4.448	0.652	13.78	0.073
0.0242	1.396	4.615	0.629	13.95	0.07
0.0373	2.265	4.782	0.6	14.12	0.067
0.0513	1.838	4.948	0.574	14.28	0.064
0.0662	1.76	5.115	0.557	14.45	0.061
0.0818	2.017	5.282	0.534	14.62	0.061
0.0985	1.924	5.448	0.511	14.78	0.058
0.1162	1.904	5.615	0.494	14.95	0.055
0.1348	1.895	5.782	0.476	15.12	0.055
0.1547	1.887	5.948	0.453	15.28	0.052
0.1757	1.878	6.115	0.436	15.45	0.05
0.1978	1.867	6.282	0.421	15.62	0.047
0.2213	1.852	6.448	0.407	15.78	0.047
0.2462	1.843	6.615	0.39	15.95	0.044
0.2725	1.832	6.782	0.372	16.12	0.044
0.3005	1.815	6.948	0.358	16.28	0.044
0.3302	1.803	7.115	0.344	16.45	0.044
0.3615	1.786	7.282	0.332	16.62	0.041
0.3947	1.768	7.448	0.318	16.78	0.038



MW-1 SLUG IN

Data Set: C:\AQTW\THERMO~1\MW1IN.AQT
Date: 12/07/00 Time: 16:01:19

PROJECT INFORMATION

Company: LAW
Client: Ingersoll-Rand
Project: 12000-0-2050
Test Location: Louisville, Georgia
Test Well: MW-1
Test Date: 10/04/00

AQUIFER DATA

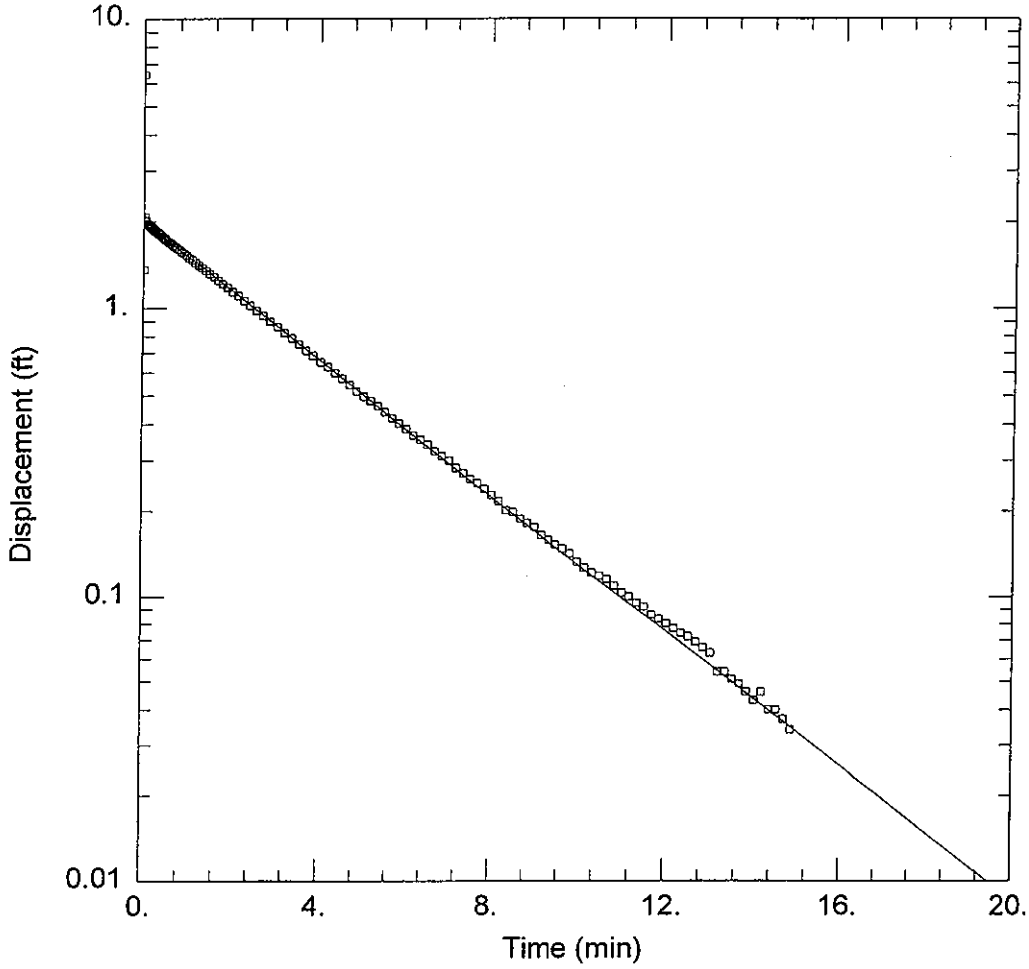
Saturated Thickness: 27.61 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 6.295 ft Water Column Height: 27.61 ft
Casing Radius: 0.0833 ft Wellbore Radius: 0.1667 ft
Screen Length: 5. ft Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Confined K = 0.001066 ft/min
Solution Method: Bouwer-Rice y0 = 1.96 ft



MW-1 SLUG OUT

Data Set: C:\AQTW\THERMO~1\MW1OUT.AQT
Date: 12/07/00 Time: 16:01:30

PROJECT INFORMATION

Company: LAW
Client: Ingersoll-Rand
Project: 12000-0-2050
Test Location: Louisville, Georgia
Test Well: MW-1
Test Date: 10/04/00

AQUIFER DATA

Saturated Thickness: 27.61 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 6.435 ft
Casing Radius: 0.0833 ft
Screen Length: 5. ft
Water Column Height: 27.61 ft
Wellbore Radius: 0.1667 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 0.001174 ft/min
y0 = 1.977 ft

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.4298	1.754	7.615	0.306	16.95	0.038
0.4672	1.74	7.782	0.295	17.12	0.032
0.5067	1.722	7.948	0.283	17.28	0.035
0.5485	1.705	8.115	0.272	17.45	0.035
0.5928	1.682	8.282	0.263	17.62	0.026
0.6398	1.662	8.448	0.251	17.78	0.032
0.6897	1.644	8.615	0.243	17.95	0.024
0.7423	1.621	8.782	0.234	18.12	0.029
0.7982	1.598	8.948	0.223	18.28	0.024
0.8573	1.575	9.115	0.214	18.45	0.024
0.92	1.552	9.282	0.205	18.62	0.024
0.9863	1.523	9.448	0.199	18.78	0.024
1.057	1.497	9.615	0.194	18.95	0.024
1.131	1.471	9.782	0.188	19.12	0.024
1.21	1.44	9.948	0.179	19.28	0.024
1.294	1.411	10.12	0.173	19.45	0.021
1.382	1.376	10.28	0.168	19.62	0.018
1.476	1.35	10.45	0.159	19.78	0.021
1.576	1.318	10.62	0.153	19.95	0.018
1.681	1.278	10.78	0.145	20.12	0.018
1.792	1.246	10.95	0.142	20.28	0.018
1.911	1.212	11.12	0.133	20.45	0.018
2.036	1.174	11.28	0.13	20.62	0.018
2.168	1.137	11.45	0.124	20.78	0.018
2.309	1.119	11.62	0.122	20.95	0.015
2.458	1.062	11.78	0.113	21.12	0.015
2.615	1.018	11.95	0.113	21.28	0.018
2.782	0.978	12.12	0.11	21.45	0.015
2.948	0.938	12.28	0.101	21.62	0.015
3.115	0.9	12.45	0.101	21.78	0.015
3.282	0.863	12.62	0.096	21.95	0.015
3.448	0.831	12.78	0.093	22.12	0.015
3.615	0.799	12.95	0.09	22.28	0.018
3.782	0.762	13.12	0.087	22.45	0.012
3.948	0.736	13.28	0.084	22.62	0.012
4.115	0.71	13.45	0.078	22.78	0.012
4.282	0.678	13.62	0.075		

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0009923	ft/min
y0	1.841	ft

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.2747	1.847	4.047	0.651	11.21	0.1
0.2968	1.836	4.214	0.628	11.38	0.095
0.3203	1.821	4.381	0.599	11.55	0.092
0.3452	1.807	4.547	0.573	11.71	0.086
0.3715	1.804	4.714	0.544	11.88	0.083
0.3995	1.781	4.881	0.518	12.05	0.08
0.4292	1.764	5.047	0.498	12.21	0.077
0.4605	1.749	5.214	0.481	12.38	0.074
0.4937	1.732	5.381	0.461	12.55	0.072
0.5288	1.715	5.547	0.441	12.71	0.069
0.5662	1.695	5.714	0.42	12.88	0.066
0.6057	1.68	5.881	0.403	13.05	0.063
0.6475	1.657	6.047	0.386	13.21	0.054
0.6918	1.637	6.214	0.366	13.38	0.054
0.7388	1.617	6.381	0.354	13.55	0.051
0.7887	1.594	6.547	0.34	13.71	0.049
0.8413	1.568	6.714	0.322	13.88	0.046
0.8972	1.545	6.881	0.311	14.05	0.043
0.9563	1.522	7.047	0.299	14.21	0.046
1.019	1.493	7.214	0.282	14.38	0.04
1.085	1.47	7.381	0.271	14.55	0.04
1.156	1.438	7.547	0.259	14.71	0.037
1.23	1.406	7.714	0.25	14.88	0.034
1.309	1.378	7.881	0.239		

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.001158	ft/min
y0	1.962	ft

Data Set: C:\AQTW\THERMO~1\MW1OUT.AQT
Title: MW-1 SLUG OUT
Date: 10/05/00
Time: 14:30:13

PROJECT INFORMATION

Company: LAW
Client: Ingersoll-Rand
Project: 12000-0-2050
Location: Louisville, Georgia
Test Date: 10/04/00
Test Well: MW-1

AQUIFER DATA

Saturated Thickness: 27.61 ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-1

X Location: 0. ft
Y Location: 0. ft

No. of observations: 128

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.011	2.032	1.393	1.346	8.047	0.227
0.022	1.36	1.481	1.314	8.214	0.216
0.033	2.078	1.575	1.282	8.381	0.201
0.044	2.003	1.675	1.245	8.547	0.198
0.055	2.012	1.78	1.21	8.714	0.187
0.066	1.971	1.891	1.176	8.881	0.181
0.077	1.974	2.01	1.138	9.047	0.175
0.088	1.963	2.135	1.104	9.214	0.164
0.099	1.957	2.267	1.06	9.381	0.158
0.1107	1.945	2.408	1.023	9.547	0.152
0.1232	1.942	2.557	0.98	9.714	0.147
0.1363	1.928	2.714	0.942	9.881	0.141
0.1503	1.922	2.881	0.899	10.05	0.132
0.1652	1.911	3.047	0.862	10.21	0.126
0.1808	1.902	3.214	0.821	10.38	0.121
0.1975	1.891	3.381	0.787	10.55	0.118
0.2152	1.882	3.547	0.749	10.71	0.115
0.2338	1.867	3.714	0.715	10.88	0.109
0.2537	1.856	3.881	0.686	11.05	0.103

Data Set: C:\AQTW\THERMO~1\MW4IN.AQT
Title: MW-4 SLUG IN
Date: 10/05/00
Time: 14:32:10

PROJECT INFORMATION

Company: LAW
Client: Ingersoll-Rand
Project: 12000-0-2050
Location: Louisville, Georgia
Test Date: 10/04/00
Test Well: MW-4

AQUIFER DATA

Saturated Thickness: 16.67 ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

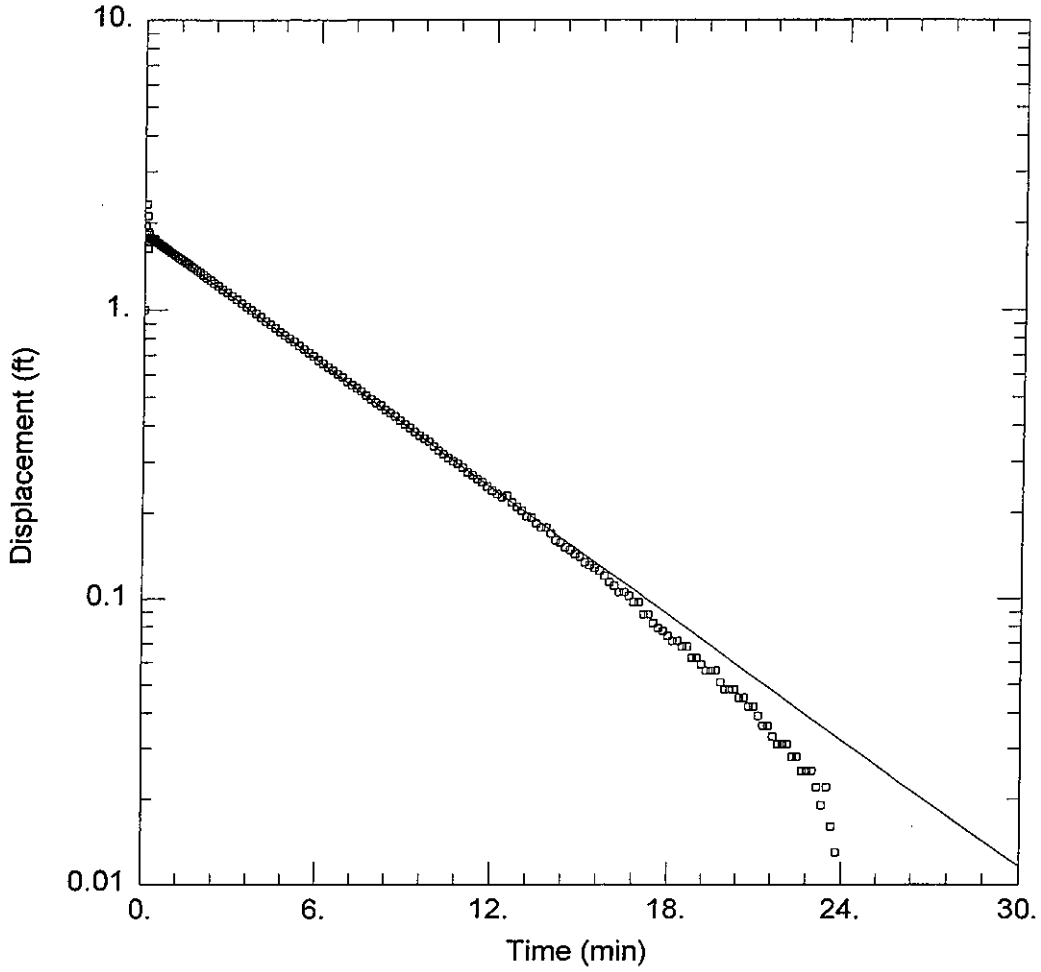
Observation Well No. 1: MW-4

X Location: 0. ft
Y Location: 0. ft

No. of observations: 190

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.011	1.	2.98	1.115	13.65	0.177
0.022	1.739	3.146	1.083	13.81	0.177
0.033	1.937	3.313	1.051	13.98	0.169
0.044	1.957	3.48	1.023	14.15	0.16
0.055	1.814	3.646	0.997	14.31	0.157
0.066	1.71	3.813	0.971	14.48	0.151
0.077	2.317	3.98	0.945	14.65	0.148
0.088	1.862	4.146	0.913	14.81	0.143
0.099	2.11	4.313	0.893	14.98	0.14
0.11	1.638	4.48	0.867	15.15	0.134
0.121	1.624	4.646	0.841	15.31	0.131
0.132	1.862	4.813	0.818	15.48	0.128
0.143	1.837	4.98	0.798	15.65	0.125
0.154	1.759	5.146	0.778	15.81	0.12
0.165	1.756	5.313	0.752	15.98	0.114
0.176	1.773	5.48	0.732	16.15	0.111
0.187	1.785	5.646	0.712	16.31	0.105
0.198	1.765	5.813	0.695	16.48	0.105
0.2097	1.762	5.98	0.672	16.65	0.102



MW-4 SLUG IN

Data Set: C:\AQTW\THERMO~1\MW4IN.AQT
Date: 12/07/00 Time: 16:01:37

PROJECT INFORMATION

Company: LAW
Client: Ingersoll-Rand
Project: 12000-0-2050
Test Location: Louisville, Georgia
Test Well: MW-4
Test Date: 10/04/00

AQUIFER DATA

Saturated Thickness: 16.67 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 11.09 ft
Casing Radius: 0.0833 ft
Screen Length: 5. ft
Water Column Height: 16.67 ft
Wellbore Radius: 0.1667 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
K = 0.0006733 ft/min
y0 = 1.83 ft

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0007295	ft/min
y0	1.936	ft

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.2222	1.759	6.146	0.654	16.81	0.097
0.2353	1.753	6.313	0.637	16.98	0.097
0.2493	1.747	6.48	0.62	17.15	0.088
0.2642	1.747	6.646	0.603	17.31	0.088
0.2798	1.742	6.813	0.588	17.48	0.082
0.2965	1.739	6.98	0.568	17.65	0.079
0.3142	1.733	7.146	0.551	17.81	0.077
0.3328	1.759	7.313	0.539	17.98	0.074
0.3527	1.747	7.48	0.525	18.15	0.071
0.3737	1.724	7.646	0.508	18.31	0.071
0.3958	1.71	7.813	0.493	18.48	0.068
0.4193	1.704	7.98	0.479	18.65	0.068
0.4442	1.698	8.146	0.468	18.81	0.062
0.4705	1.693	8.313	0.453	18.98	0.062
0.4985	1.687	8.48	0.442	19.15	0.059
0.5282	1.67	8.646	0.43	19.31	0.056
0.5595	1.667	8.813	0.416	19.48	0.056
0.5927	1.652	8.98	0.404	19.65	0.056
0.6278	1.647	9.146	0.393	19.81	0.051
0.6652	1.638	9.313	0.381	19.98	0.048
0.7047	1.624	9.48	0.37	20.15	0.048
0.7465	1.615	9.646	0.361	20.31	0.048
0.7908	1.604	9.813	0.353	20.48	0.045
0.8378	1.589	9.98	0.338	20.65	0.045
0.8877	1.575	10.15	0.327	20.81	0.042
0.9403	1.563	10.31	0.318	20.98	0.042
0.9962	1.549	10.48	0.309	21.15	0.039
1.055	1.535	10.65	0.301	21.31	0.036
1.118	1.52	10.81	0.295	21.48	0.036
1.184	1.5	10.98	0.286	21.65	0.033
1.255	1.486	11.15	0.275	21.81	0.031
1.329	1.468	11.31	0.269	21.98	0.031
1.408	1.448	11.48	0.261	22.15	0.031
1.492	1.428	11.65	0.255	22.31	0.028
1.58	1.405	11.81	0.246	22.48	0.028
1.674	1.385	11.98	0.238	22.65	0.025
1.774	1.362	12.15	0.232	22.81	0.025
1.879	1.339	12.31	0.226	22.98	0.025
1.99	1.313	12.48	0.229	23.15	0.022
2.109	1.287	12.65	0.217	23.31	0.019
2.234	1.261	12.81	0.209	23.48	0.022
2.366	1.233	12.98	0.203	23.65	0.016
2.507	1.207	13.15	0.194	23.81	0.013
2.656	1.172	13.31	0.192		
2.813	1.146	13.48	0.183		

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

Data Set: C:\AQTW\THERMO~1\MW4OUT.AQT
Title: MW-4 SLUG OUT
Date: 10/05/00
Time: 14:32:25

PROJECT INFORMATION

Company: LAW
Client: Ingersoll-Rand
Project: 12000-0-2050
Location: Louisville, Georgia
Test Date: 10/04/00
Test Well: MW-4

AQUIFER DATA

Saturated Thickness: 16.67 ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

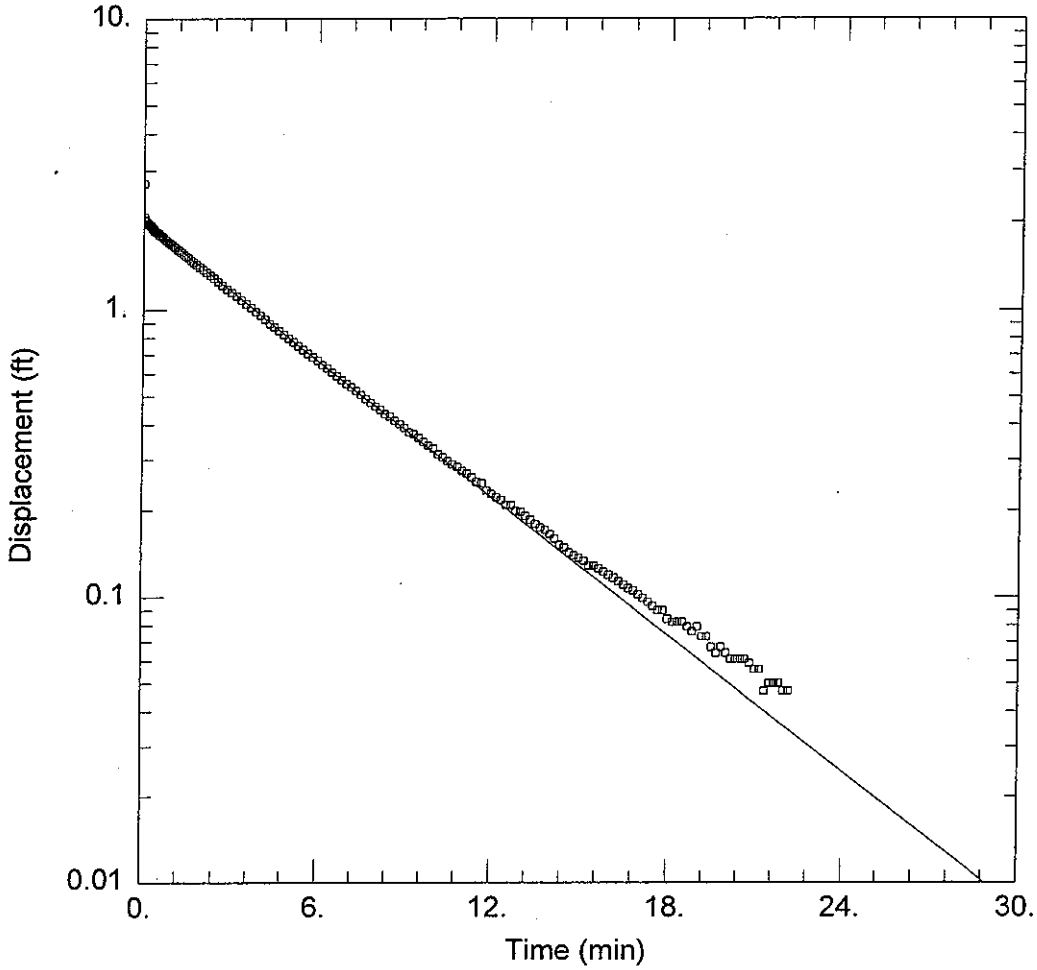
Observation Well No. 1: MW-4

X Location: 0. ft
Y Location: 0. ft

No. of observations: 182

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.011	1.979	2.256	1.312	12.34	0.217
0.022	2.073	2.388	1.283	12.5	0.208
0.033	2.042	2.529	1.249	12.67	0.208
0.044	2.033	2.678	1.214	12.84	0.199
0.055	2.022	2.835	1.177	13.	0.197
0.066	2.013	3.002	1.145	13.17	0.191
0.077	2.007	3.168	1.111	13.34	0.185
0.088	1.987	3.335	1.079	13.5	0.179
0.099	1.996	3.502	1.045	13.67	0.174
0.11	1.964	3.668	1.016	13.84	0.171
0.121	1.979	3.835	0.984	14.	0.165
0.132	1.976	4.002	0.955	14.17	0.159
0.143	1.97	4.168	0.927	14.34	0.151
0.154	1.961	4.335	0.895	14.5	0.148
0.165	1.958	4.502	0.872	14.67	0.142
0.176	1.956	4.668	0.846	14.84	0.139
0.187	1.956	4.835	0.82	15.	0.136
0.198	1.953	5.002	0.795	15.17	0.133
0.209	1.938	5.168	0.774	15.34	0.128



MW-4 SLUG OUT

Data Set: C:\AQTW\THERMO~1\MW4OUT.AQT
Date: 12/07/00 Time: 16:01:45

PROJECT INFORMATION

Company: LAW
Client: Ingersoll-Rand
Project: 12000-0-2050
Test Location: Louisville, Georgia
Test Well: MW-4
Test Date: 10/04/00

AQUIFER DATA

Saturated Thickness: 16.67 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 2.703 ft Water Column Height: 16.67 ft
Casing Radius: 0.0833 ft Wellbore Radius: 0.1667 ft
Screen Length: 5. ft Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Confined K = 0.0007317 ft/min
Solution Method: Bouwer-Rice y0 = 2.005 ft

Estimated Parameters

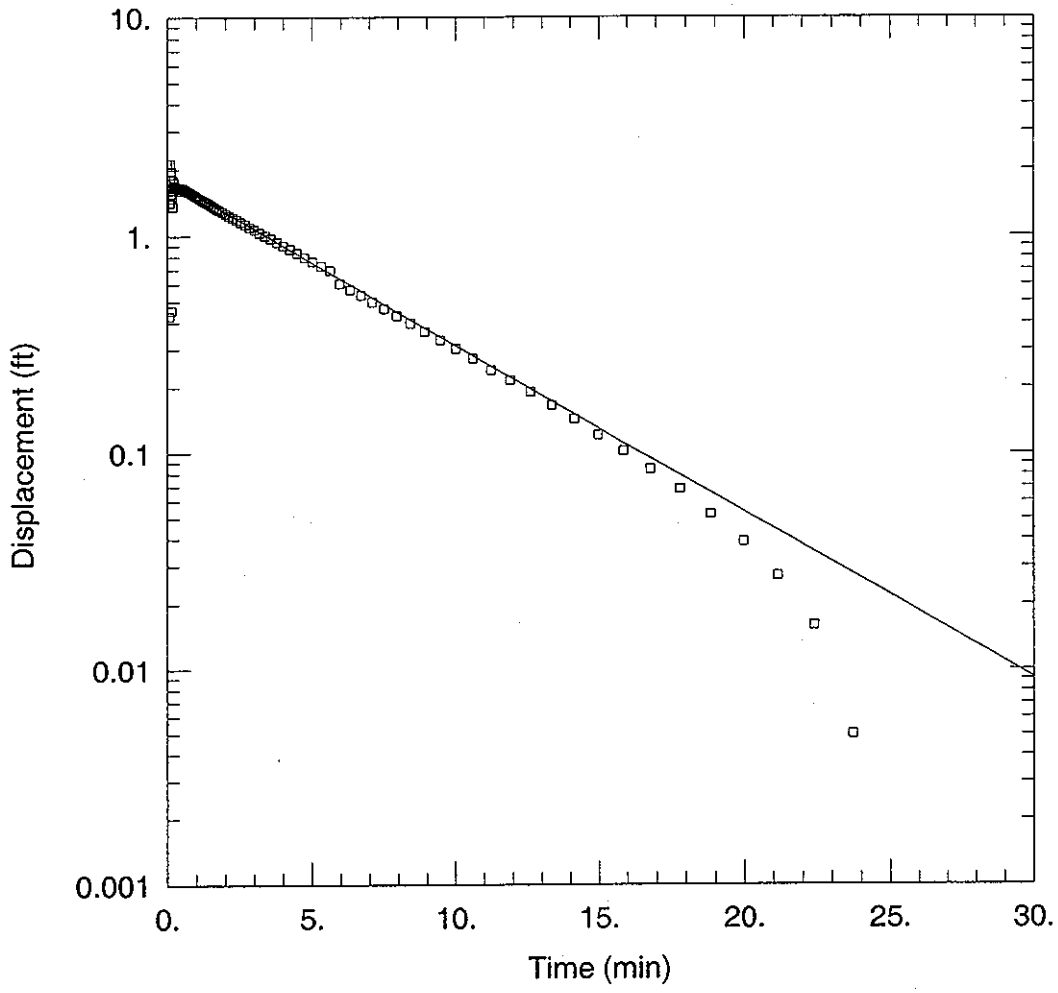
Parameter	Estimate	
K	0.0006917	ft/min
y0	1.94	ft

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.22	1.935	5.335	0.749	15.5	0.128
0.2317	1.935	5.502	0.728	15.67	0.125
0.2442	1.921	5.668	0.705	15.84	0.122
0.2573	1.924	5.835	0.685	16.	0.119
0.2713	1.912	6.002	0.668	16.17	0.116
0.2862	1.904	6.168	0.645	16.34	0.113
0.3018	1.895	6.335	0.628	16.5	0.11
0.3185	1.892	6.502	0.608	16.67	0.107
0.3362	1.884	6.668	0.59	16.84	0.105
0.3548	1.861	6.835	0.57	17.	0.102
0.3747	1.864	7.002	0.553	17.17	0.099
0.3957	1.855	7.168	0.539	17.34	0.096
0.4178	1.846	7.335	0.524	17.5	0.093
0.4413	1.841	7.502	0.507	17.67	0.09
0.4662	1.832	7.668	0.49	17.84	0.09
0.4925	1.832	7.835	0.475	18.	0.084
0.5205	1.809	8.002	0.461	18.17	0.082
0.5502	1.8	8.168	0.45	18.34	0.082
0.5815	1.789	8.335	0.435	18.5	0.082
0.6147	1.78	8.502	0.427	18.67	0.079
0.6498	1.766	8.668	0.412	18.84	0.076
0.6872	1.754	8.835	0.401	19.	0.079
0.7267	1.737	9.002	0.389	19.17	0.073
0.7685	1.726	9.168	0.375	19.34	0.073
0.8128	1.708	9.335	0.369	19.5	0.067
0.8598	1.697	9.502	0.358	19.67	0.064
0.9097	1.68	9.668	0.346	19.84	0.067
0.9623	1.665	9.835	0.337	20.	0.064
1.018	1.645	10.	0.329	20.17	0.061
1.077	1.628	10.17	0.314	20.34	0.061
1.14	1.608	10.34	0.306	20.5	0.061
1.206	1.591	10.5	0.297	20.67	0.061
1.277	1.571	10.67	0.289	20.84	0.059
1.351	1.545	10.84	0.283	21.	0.056
1.43	1.525	11.	0.274	21.17	0.056
1.514	1.502	11.17	0.268	21.34	0.047
1.602	1.479	11.34	0.26	21.5	0.05
1.696	1.453	11.5	0.251	21.67	0.05
1.796	1.43	11.67	0.248	21.84	0.05
1.901	1.401	11.84	0.234	22.	0.047
2.012	1.372	12.	0.228	22.17	0.047
2.131	1.343	12.17	0.222		

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS



MW-10:IN

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW-10IN.AQT
Date: 04/03/03 Time: 14:16:02

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-10
Test Date: APRIL 1, 2003

AQUIFER DATA

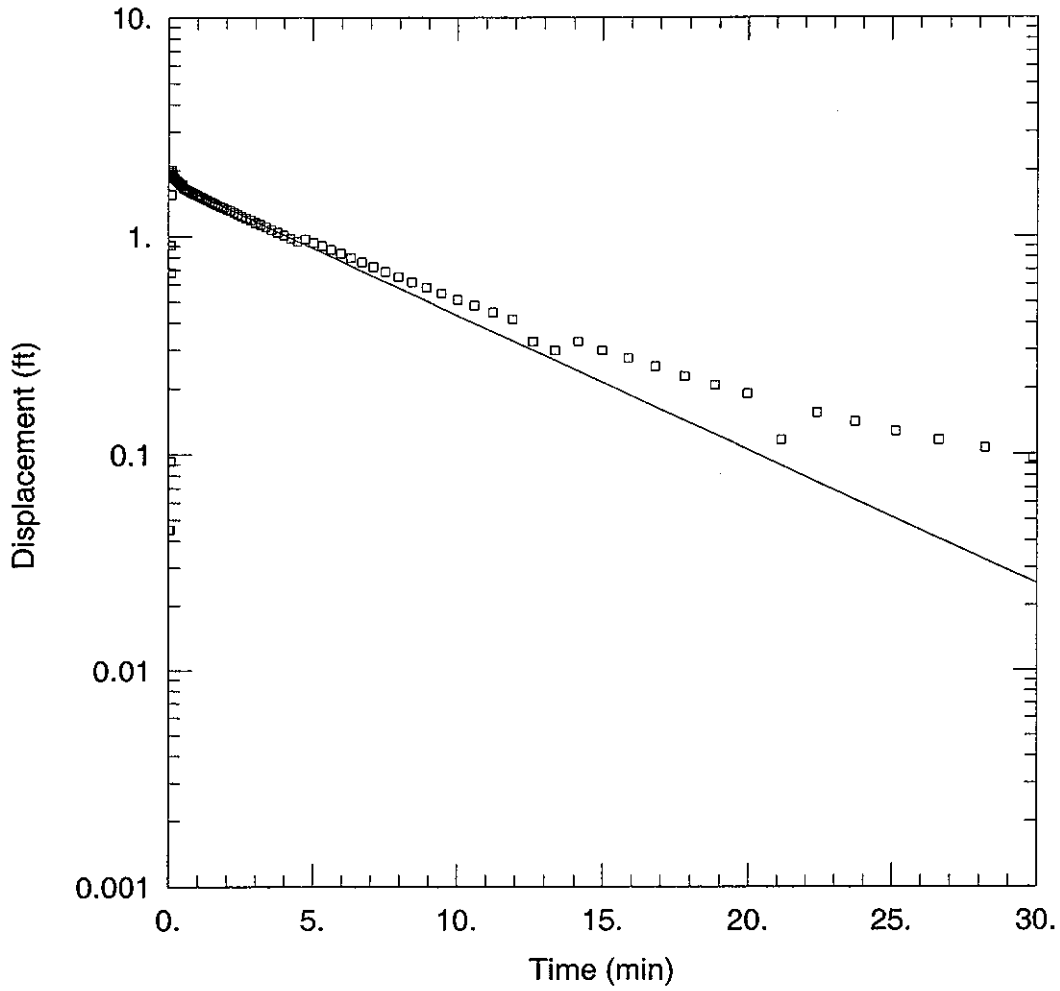
Saturated Thickness: 15.33 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 2.136 ft
Casing Radius: 0.0833 ft
Screen Length: 10. ft
Water Column Height: 15.33 ft
Wellbore Radius: 0.25 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0002876 cm/sec
y0 = 1.826 ft



MW-10:OUT

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW-10OUT.AQT
Date: 04/03/03 Time: 14:16:14

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-10
Test Date: APRIL 1, 2003

AQUIFER DATA

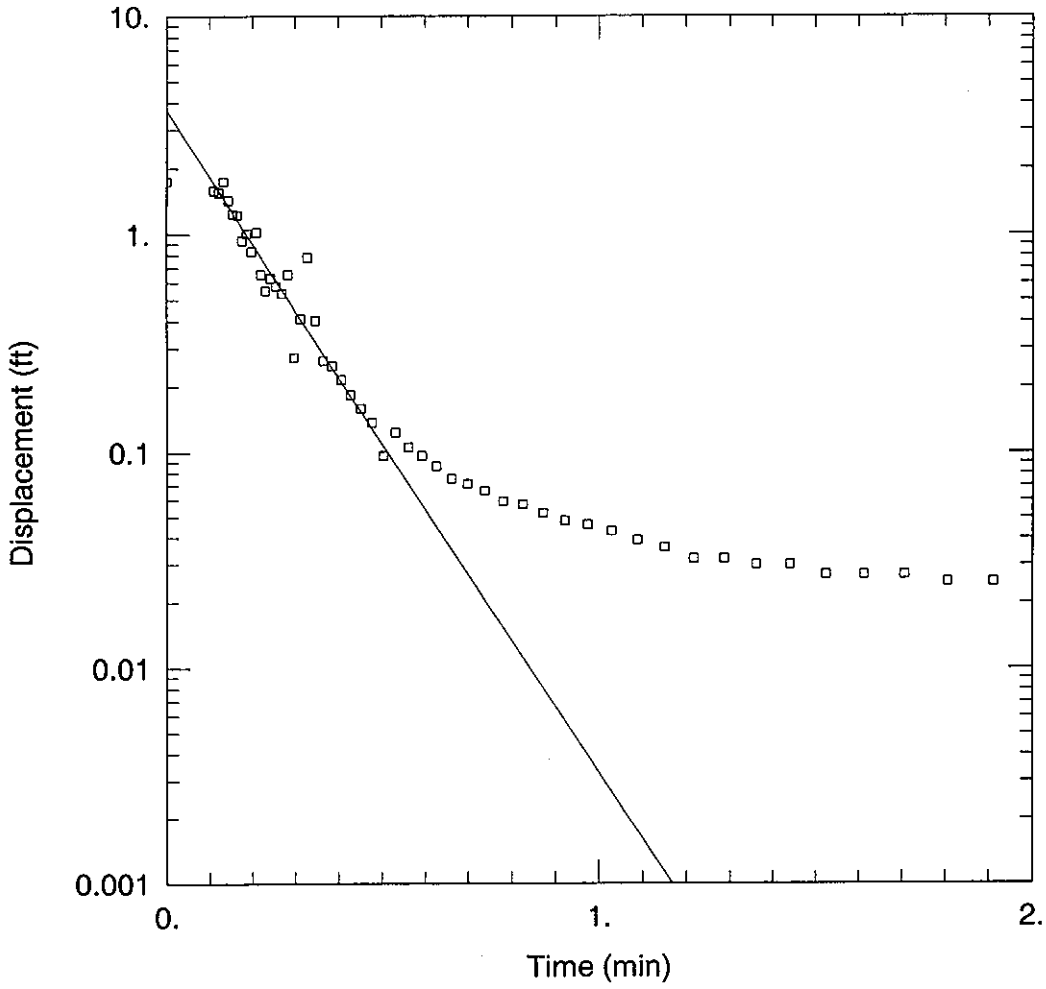
Saturated Thickness: 15.33 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 2.012 ft
Casing Radius: 0.0833 ft
Screen Length: 10. ft
Water Column Height: 15.33 ft
Wellbore Radius: 0.25 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0002314 cm/sec
y0 = 1.791 ft



MW-14:IN

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW-14IN.AQT
Date: 04/03/03 Time: 14:04:26

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-14
Test Date: APRIL 1, 2003

AQUIFER DATA

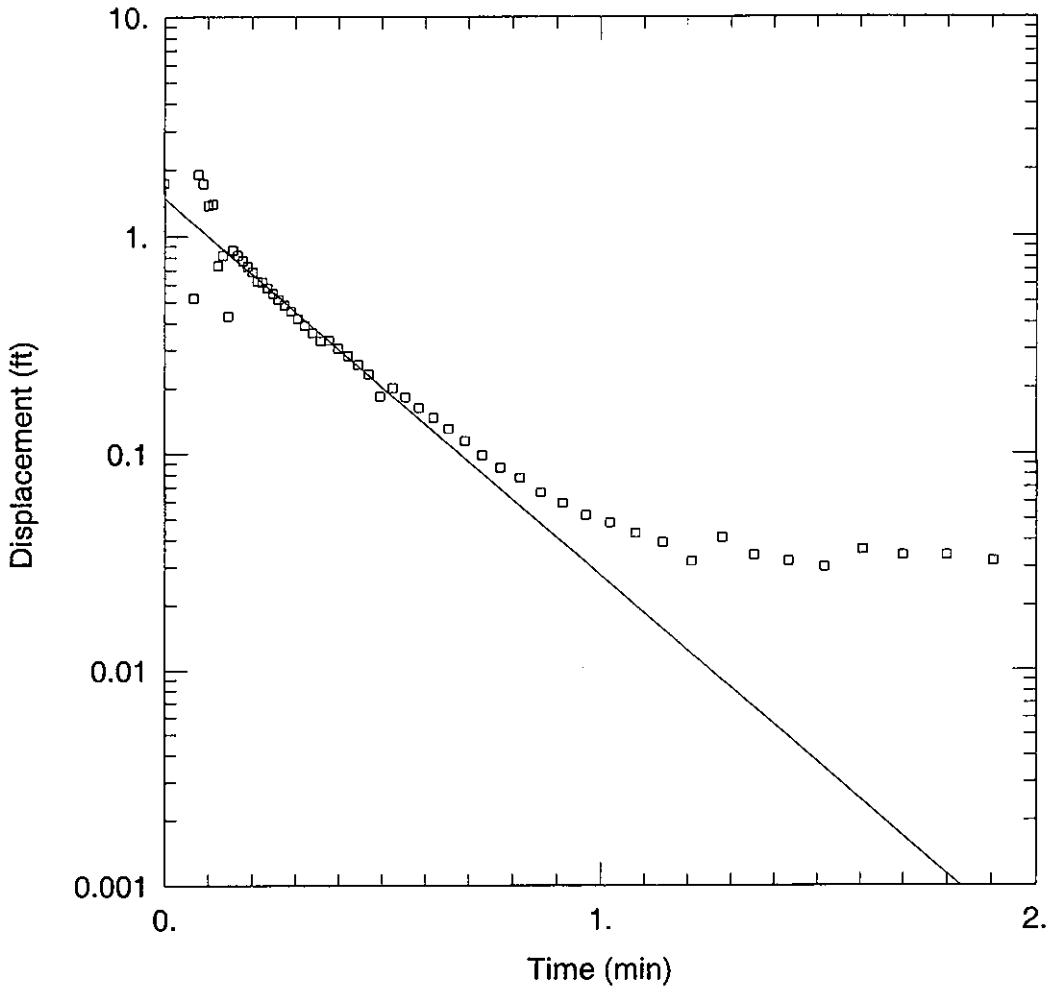
Saturated Thickness: 23.67 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 1.739 ft
Casing Radius: 0.0833 ft
Screen Length: 15. ft
Water Column Height: 23.67 ft
Wellbore Radius: 0.2916 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.01042 cm/sec
y0 = 3.683 ft



MW-14:IN

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW14IN2.AQT
Date: 04/03/03 Time: 13:59:38

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-14
Test Date: APRIL 1, 2003

AQUIFER DATA

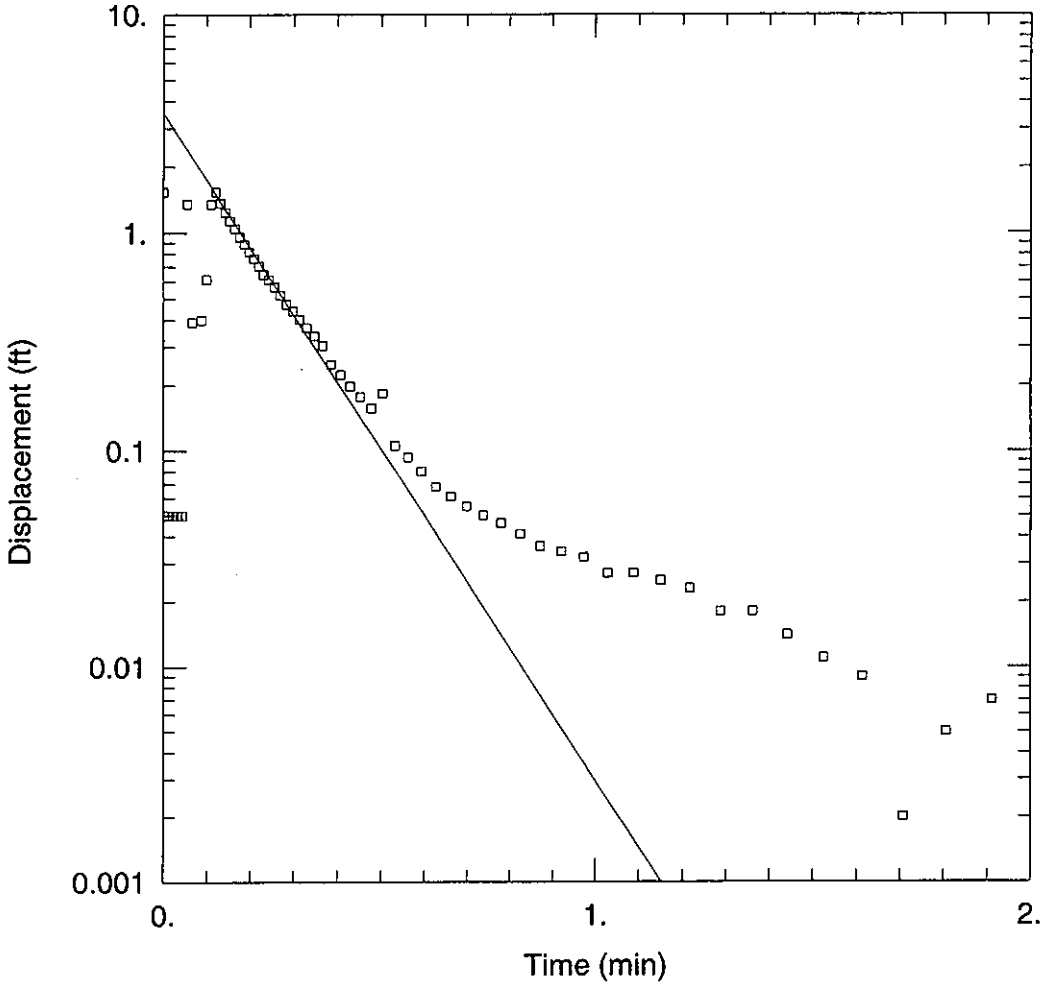
Saturated Thickness: 23.67 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 1.739 ft
Casing Radius: 0.0833 ft
Screen Length: 15. ft
Water Column Height: 23.67 ft
Wellbore Radius: 0.2916 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.005912 cm/sec
y0 = 1.488 ft



MW-14:OUT

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW-14OUT.AQT
Date: 04/03/03 Time: 14:03:18

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-14
Test Date: APRIL 1, 2003

AQUIFER DATA

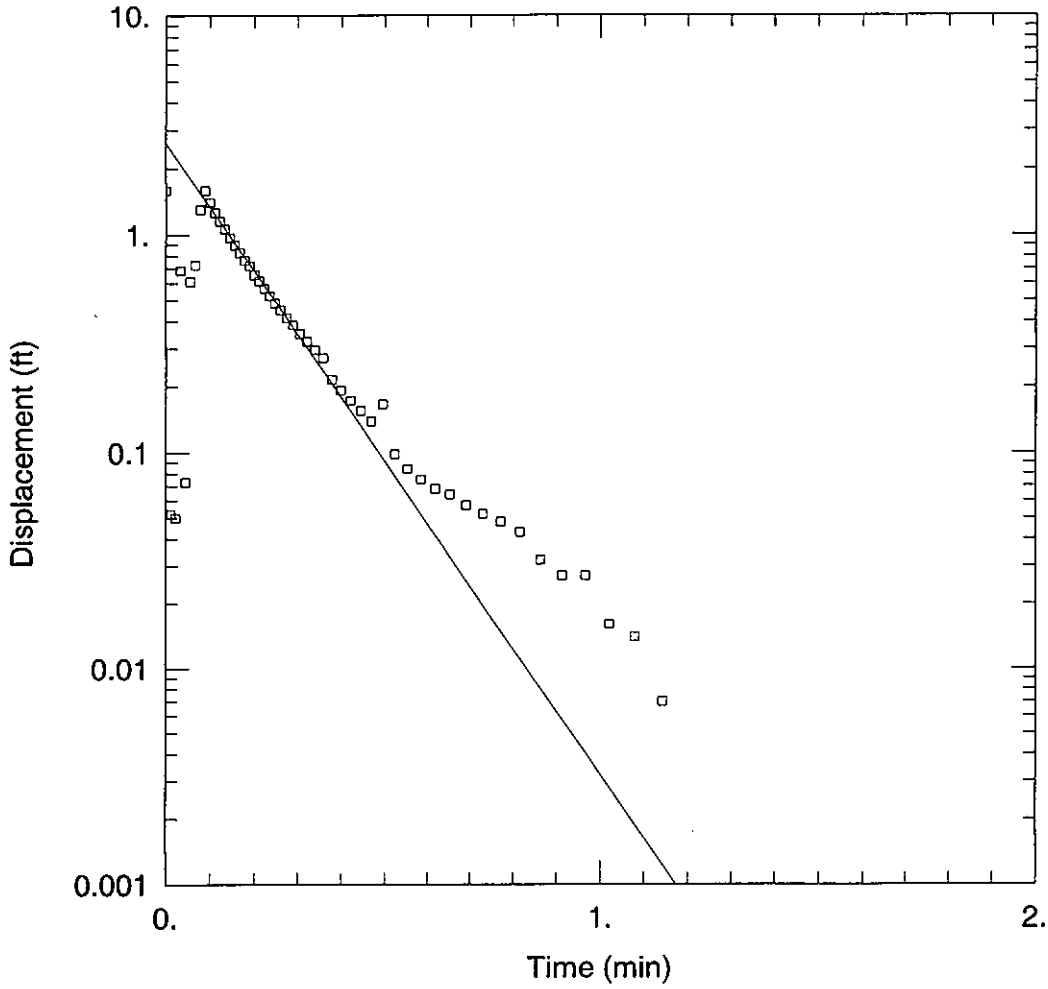
Saturated Thickness: 23.67 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 1.536 ft
Casing Radius: 0.0833 ft
Screen Length: 15. ft
Water Column Height: 23.67 ft
Wellbore Radius: 0.2916 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.01051 cm/sec
y0 = 3.527 ft



MW-14:OUT

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW14OUT2.AQT
Date: 04/03/03 Time: 13:59:07

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-14
Test Date: APRIL 1, 2003

AQUIFER DATA

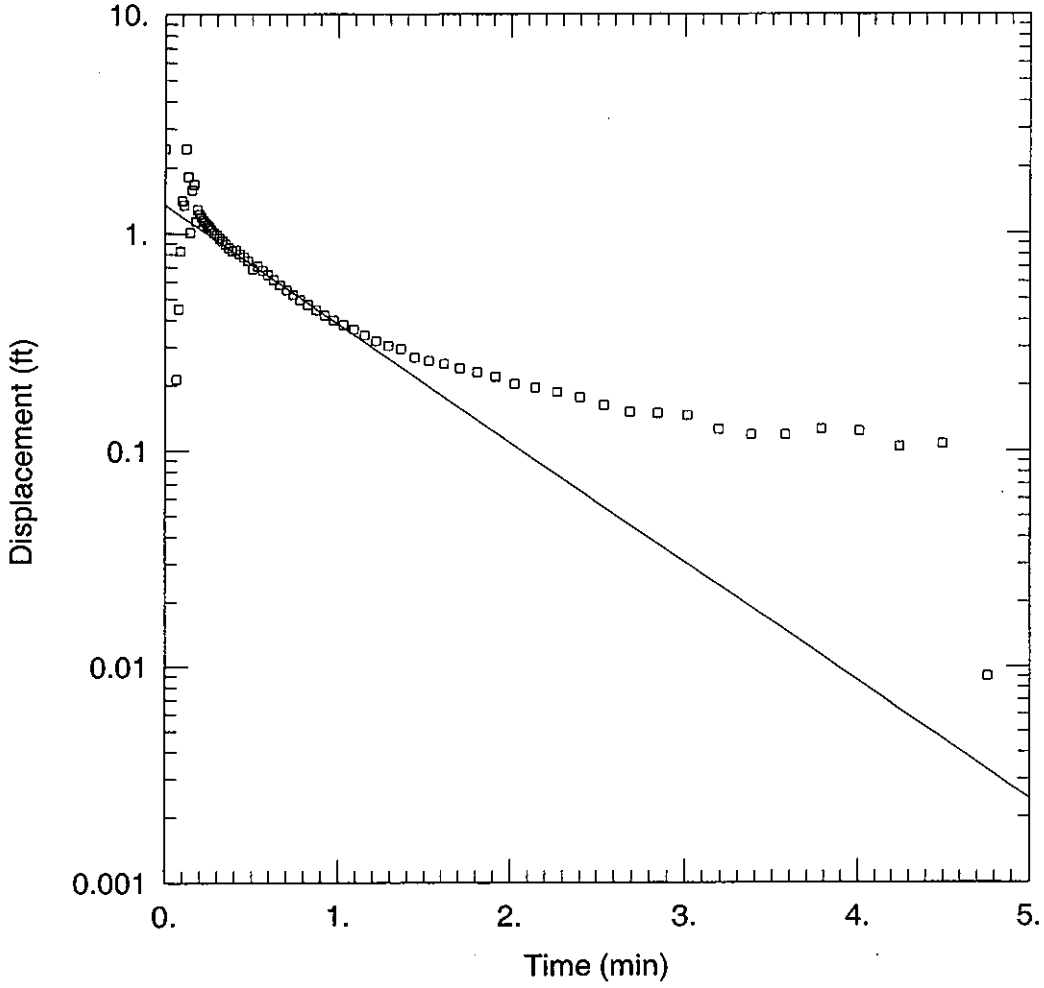
Saturated Thickness: 23.67 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 1.592 ft
Casing Radius: 0.0833 ft
Screen Length: 15. ft
Water Column Height: 23.67 ft
Wellbore Radius: 0.2916 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.009931 cm/sec
y0 = 2.614 ft



MW-15S:IN

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW-15SIN.AQT
Date: 04/03/03 Time: 14:15:23

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-15S
Test Date: APRIL 1, 2003

AQUIFER DATA

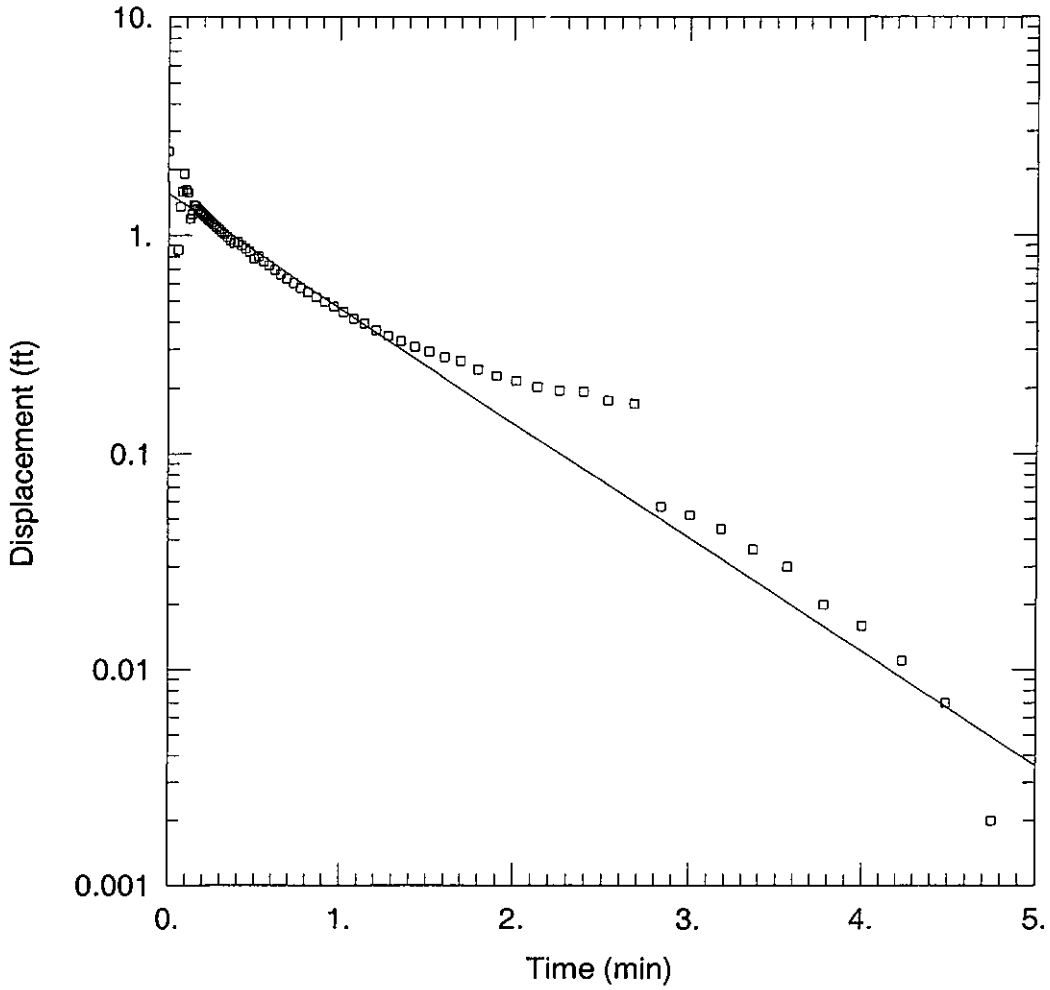
Saturated Thickness: 8.45 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 2.434 ft
Casing Radius: 0.0833 ft
Screen Length: 5. ft
Water Column Height: 8.45 ft
Wellbore Radius: 0.25 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.003379 cm/sec
y0 = 1.348 ft



MW-15S:IN

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW15SIN2.AQT
Date: 04/03/03 Time: 14:13:17

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-15S
Test Date: APRIL 1, 2003

AQUIFER DATA

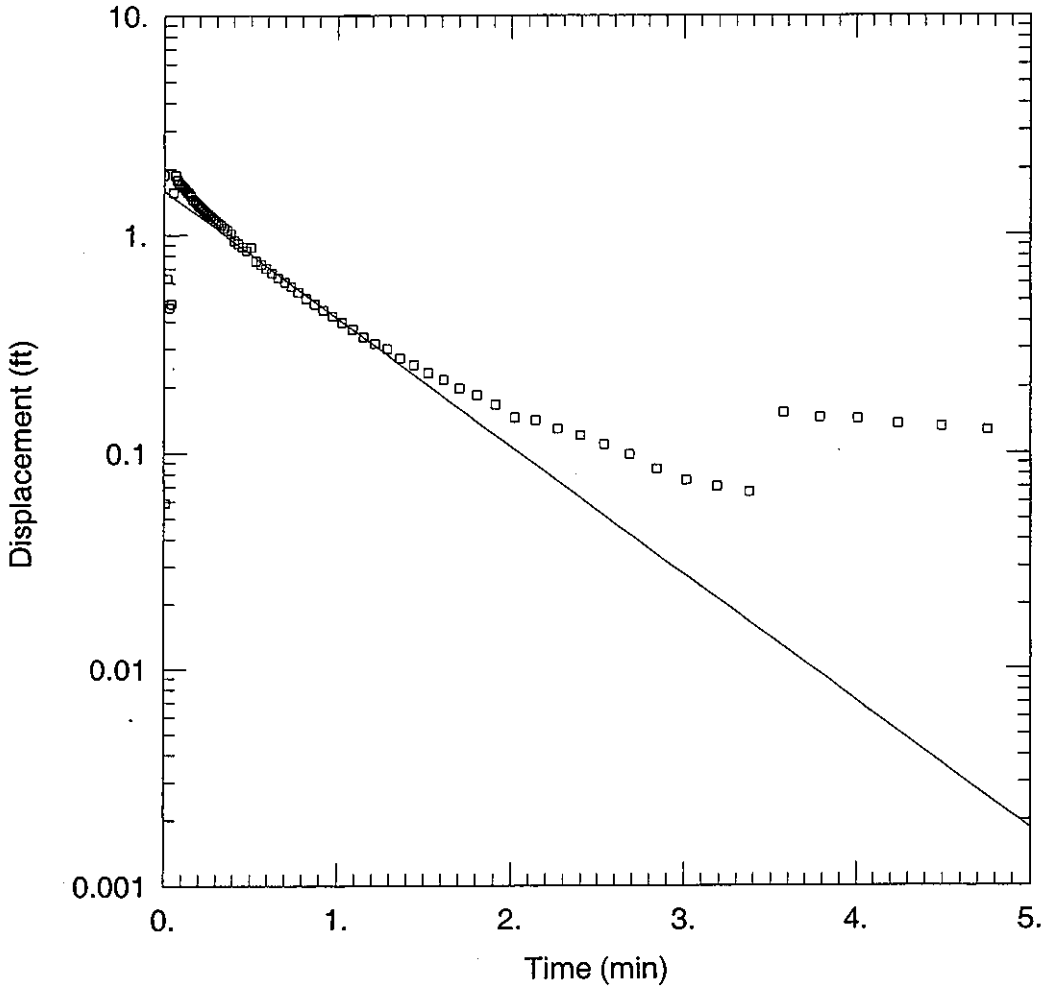
Saturated Thickness: 8.45 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 2.434 ft
Casing Radius: 0.0833 ft
Screen Length: 5. ft
Water Column Height: 8.45 ft
Wellbore Radius: 0.25 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.003246 cm/sec
y0 = 1.555 ft



MW-15S:OUT

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW-15SO.AQT
Date: 04/03/03 Time: 14:15:42

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-15S
Test Date: APRIL 1, 2003

AQUIFER DATA

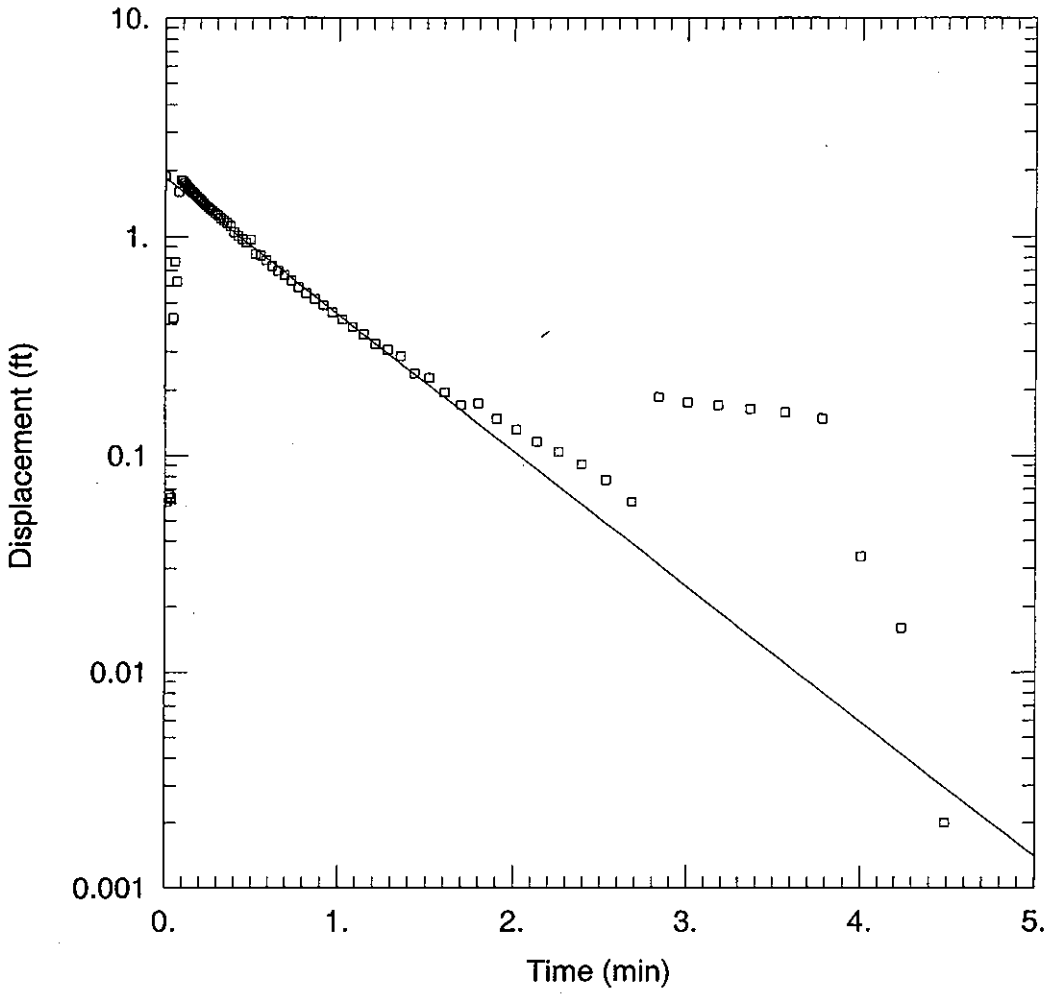
Saturated Thickness: 8.45 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 1.879 ft
Casing Radius: 0.0833 ft
Screen Length: 5. ft
Water Column Height: 8.45 ft
Wellbore Radius: 0.25 ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.003621 cm/sec
y0 = 1.598 ft



MW-15S:OUT

Data Set: C:\DOCUME~1\CKRAMBIS\DESKTOP\PROJECTS\SLUGTE~1\TK-LOU~1\MW15SO2.AQT
Date: 04/03/03 Time: 14:13:01

PROJECT INFORMATION

Company: MACTEC
Client: THERMO KING
Project: 12000-0-2050
Test Location: LOUISVILLE, GA
Test Well: MW-15S
Test Date: APRIL 1, 2003

AQUIFER DATA

Saturated Thickness: 8.45 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 1.879 ft
Water Column Height: 8.45 ft
Casing Radius: 0.0833 ft
Wellbore Radius: 0.25 ft
Screen Length: 5. ft
Gravel Pack Porosity: 0.25

SOLUTION

Aquifer Model: Unconfined
K = 0.003844 cm/sec
Solution Method: Bouwer-Rice
y0 = 1.851 ft

APPENDIX G

GEOCHEMISTRY TESTING AND DYE TRACE STUDY DATA

RESULTS OF GEOCHEMISTRY AND DYE TRACE STUDY

G.1 INORGANIC GEOCHEMISTRY

On July 8, 2003, samples were taken from six wells (MW-5, MW-14 MW-17, MW-18, MW-19 MW-20) on the Thermo King property. In addition, a sample was taken from Manson Branch. These samples were analyzed for the major inorganic cations (calcium, magnesium, potassium, sodium) and anions (alkalinity, chloride, sulfate). These samples were collected to examine the inorganic geochemical environment of the uppermost and intermediate aquifers at the site and Manson Branch. Of particular interest was the likelihood of evidence of interconnections between the uppermost and intermediate aquifers in the vicinity of MW-14 and MW-19. The results of these analyses are listed in table G-1.

G.1.1 Analysis Methods and Results

Results from the analytical analyses were input into RockWorks v.2002 (Rockware, Golden Co, 2002) for geochemical interpretation, including charge balance calculations and generation of Piper diagrams.

Charge balance calculations are used as a quality check. Since solutions of cations and anions must be electrically neutral, the number of dissolved positive charges from cations must equal the number of dissolved negative charges from anions. By comparing the total number of cation and anion charges in the analysis for a sample, a measure of the goodness and representativeness of that sample can be determined. Charge balances within the range of +/- 20 percent are acceptable, especially in relatively dilute samples such as these.

Sample Location	Charge Balance Percent
MW-5	+ 17.4
MW-14	+ 1.3
MW-17	+ 11.2
MW-18	+ 9.1
MW-19	+ 8.8
MW-20	+ 9.5
Manson Branch	- 18.5

Table G-2. Charge Balances

Piper diagrams are a graphical way of depicting ratios of major ions and grouping water samples by predominant cations and anions.

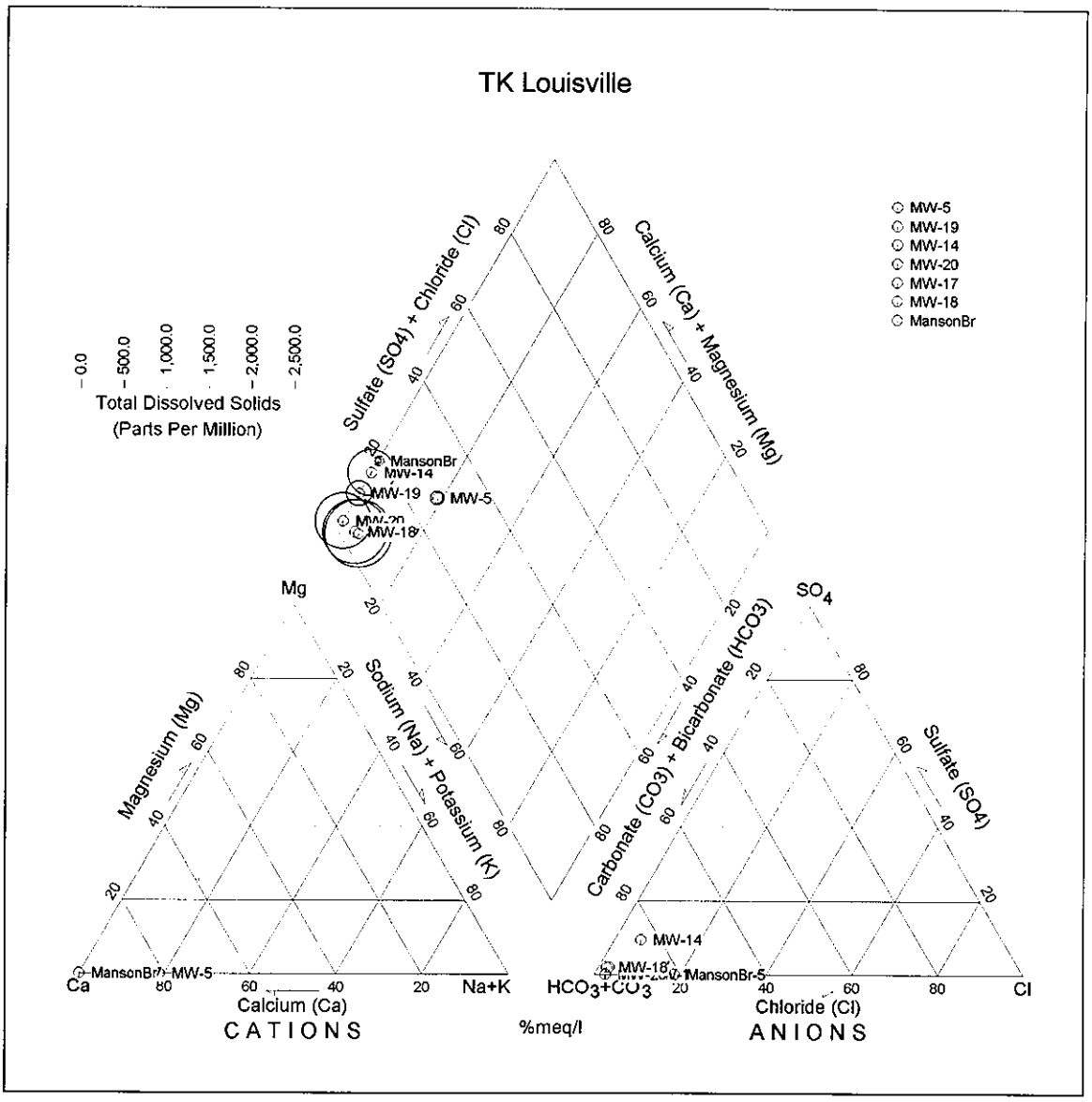


Figure G-1. Piper Trilinear Diagram

Several things can be interpreted from the Piper diagram. All water samples have calcium as the predominant cation and bicarbonate as the predominant anion (a calcium-bicarbonate water type). The water sample from Manson Branch is the most dilute (least dissolved cations and anions), while the two uppermost aquifer samples (MW-5 and MW-19) are more dilute than the four intermediate aquifer samples (MW-14, MW-17, MW-18, and MW-20). These four samples also contain more sulfate and chloride than the two uppermost aquifer samples or the Manson Branch sample.

Samples from MW-14 and MW-19 are interpreted as coming from different water types. In addition, MW-14 has almost twice as much dissolved cations and anions and has the largest concentration of sulfate of all the samples. There are also distinct differences in the specific conductance values between these two samples.

Because of its values of bicarbonate, calcium and specific conductance being between those of the uppermost aquifer samples and those of the other intermediate aquifer samples, the possibility of the water sample for MW-14 being derived from mixing of water from the uppermost and intermediate aquifer was examined. Mixing ratios of water from the sample taken from MW-19 and waters from samples taken at the various other intermediate aquifer wells needed to re-create the water in the sample from MW-14 were determined for calcium, bicarbonate, and specific conductance using the following ratio formulas:

$$\frac{\text{(value in MW-14)} - \text{(value in MW-19)}}{\text{(value in well X)} - \text{(value in MW-19)}} = \text{fraction of water from well X} \qquad \textbf{(Eq.1)}$$

$$\text{fraction of water from MW-19} = 1 - \text{fraction of water from well X} \qquad \textbf{(Eq.2)}$$

The calculated fractions from each of the intermediate aquifer wells needed to mix with water from MW-19 to recreate water from MW-14 for each of the three analytes:

Mixing Fractions	specific conductance	Calcium	Bicarbonate
MW-20	0.77103	0.56436	0.615
MW-17	0.56122	0.42729	0.471
MW-18	0.64961	0.48552	0.5

Table G-3. Mixing Fractions
(mixing fraction for MW-19 is 1.0 - fraction listed above)

From these mixing fractions, it is apparent that roughly equal quantities of water from MW-19 and "typical" intermediate aquifer water would be needed to re-create water in the sample taken from MW-14. No possible mixing fractions would allow the re-creation of the measured sulfate concentration found in the MW-14 samples.

G.1.2 Conclusions

The differences in water types for samples taken from MW-19 and MW-14 do not support significant mixing between the two waters. The differences in concentrations of dissolved cations and anions along with differences in specific conductance do not support significant mixing between the two waters. Interpretation of mixing fractions for uppermost aquifer water and intermediate aquifer water allows for the possibility of generating waters similar to the sample taken at MW-14, except for the measured sulfate constituent, but evidence of the physical conditions necessary for this free mixing of roughly equal quantities of uppermost aquifer water and intermediate aquifer water over a large enough area to contribute the fairly homogeneous waters already extracted has not been identified.

G.2 DYE TRACE STUDY

G.2.1 Description

On September 2, 2003, approximately 0.25 ounces of 20% liquid red Rhodamine WT dye was mixed with one gallon of potable water and poured into the temporary well DYE-1. Twenty gallons of potable water was then poured into the well to flush the dye into the uppermost water-bearing zone. A recording fluorometer was installed in MW-14 in the intermediate water-bearing zone began recording Rhodamine concentrations before the dye was poured and continued recording concentration readings until it was removed from the well on October 2, 2003, a period of approximately one month. A list of recorded concentrations appears in Table G-4 and Figure G-2.

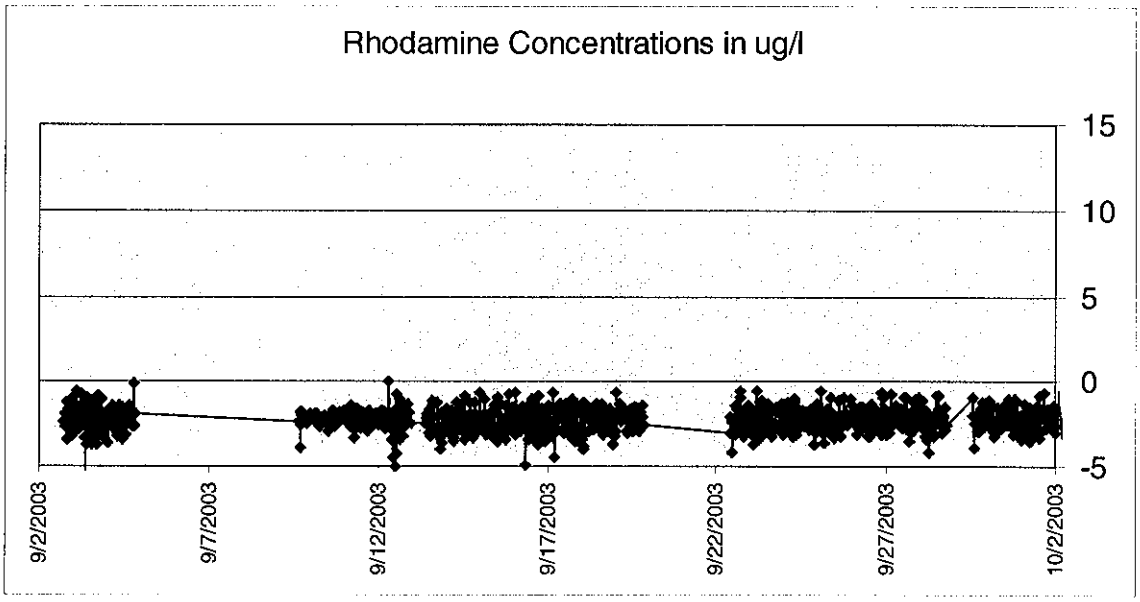


Figure G-2. Rhotamine Concentration in MW-14

Three things are immediately apparent in the chart. First, the values are all very low. Second, the values are negative. Third, there are gaps in the data collection.

The very low values indicate there was no dye detected in the intermediate water-bearing zone immediately beneath the dye injection well for at least a month. This is evidence against any significant vertical hydraulic connection between the uppermost and intermediate water-bearing zones in this area.

The negative values are a relic of the calibration process. The water used to calibrate the fluorometer gave a higher fluorometer response (even without any Rhodamine in it) than the water in the intermediate water bearing-zone. This is known as a "baseline shift" and can be corrected by adding a quantity equal to the baseline shift to back into the concentrations. In this case, the correction is less than 5 ug/L and would be needed only if exact concentrations were needed. A dye detection would still be easily identified as a value larger than the baseline in any case. No such detection is apparent in the data.

Finally, the missing data are due to battery problems. To guard against just such data losses, an activated charcoal dye trap was placed in MW-14 along with the fluorometer. This dye trap continuously absorbs any dye in the water for the entire period it is in the well. Once the trap is recovered (as the first one was when the fluorometer was removed on October 2 and replaced with a fresh trap), any dye absorbed onto the charcoal can be removed and made visible using an elution solution. The dye trap does not record when dye was absorbed (which is why a recording fluorometer was also included as a detector), but will give a positive indication if any dye had been transported into its proximity in the intermediate water-bearing zone from the uppermost water-bearing zone. No dye was apparent when charcoal from the recovered trap was eluted.

G.2.2 Conclusions

Since there was no dye detected in the intermediate water-bearing zone for at least a month, there is no evidence from the dye trace to indicate a significant flow path between the uppermost and intermediate water-bearing zones in the vicinity of MW-14.

TABLES

Table G-1 Inorganic Results								
		MW-5	**MW-19**	**MW-14**	**MW-20**	**MW-17**	**MW-18**	**Manson BR**
	Sample Depth (ft. bgs)	49'-54'	36.2-46.2	71.2-86.2	91.7-106.7	33-47.5	27-42	
	Elevation Sample (ft NAVD)	272.32-267.32	273.24-263.24	238.19-223.19	234.26-219.26	218.54-204.04	230.98-215.98	249
	Date Sampled	**7/8/2003**	**7/8/2003**	**7/8/2003**	**7/8/2003**	7/8/2003	7/8/2003	7/8/2003
Constituent	Aquifer Screened	Uppermost	Uppermost	Intermediate	Intermediate	Intermediate	Intermediate	Surface Water
	Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
pH (standard units)		6.26	7.29	7.23	7.18	7.0	6.62	6.46
Specific Conductance (uS/cm)		0.167	0.243	0.408	0.457	0.537	0.497	0.076
Temperature °C		23.7	20.8	20.6	22.7	18.8	17.3	26.6
Turbidity (NTUs)		25	207	168	13	36	45	26
Metals - SW6010B								
Calcium	mg/L	22.5	43.3	71.8	93.8	110	102	7.5
Potassium	mg/L	<5	<5	<5	<5	<5	<5	<5
Magnesium	mg/L	<5	<5	<5	<5	<5	<5	<5
Sodium	mg/L	6.0	<5	<5	<5	7.0	5.1	<5
Total Alkalinity (SW310.1)	mg/L	43	100	180	230	270	260	27
Chloride (SW300.0)	mg/L	9.5	6.4	7.5	3.4	3.9	2.9	3.6
Sulfate (SW300.0)	mg/L	<1	<1	15.8	<1	4.5	4.1	<1

Notes:

-- = Constituent not analyzed

GW = Ground Water

ug/L = micrograms per liter

mg/L = milligrams per liter

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/2/2003 16:40	19.08	0.372	0.33	-2.3
9/2/2003 17:30	19.06	0.371	0.329	-2.3
9/2/2003 18:00	19.02	0.373	0.33	-2.3
9/2/2003 18:30	19.01	0.365	0.323	-2.6
9/2/2003 19:00	19.01	0.36	0.319	-1.9
9/2/2003 19:30	19.01	0.356	0.315	-3.4
9/2/2003 20:00	19.01	0.355	0.314	-1.2
9/2/2003 20:30	19.01	0.354	0.313	-1.8
9/2/2003 21:00	19.01	0.353	0.313	-1.6
9/2/2003 21:30	19	0.354	0.313	-1.7
9/2/2003 22:00	19	0.354	0.313	-2.9
9/2/2003 22:30	19	0.355	0.314	-2
9/2/2003 23:00	19	0.355	0.314	-1
9/2/2003 23:30	19	0.356	0.315	-3.2
9/3/2003 0:00	19	0.356	0.315	-2.6
9/3/2003 0:30	19	0.357	0.316	-1.8
9/3/2003 1:00	19	0.357	0.316	-1.6
9/3/2003 1:30	19	0.358	0.317	-0.8
9/3/2003 2:00	19	0.359	0.318	-0.5
9/3/2003 2:30	19	0.359	0.318	-2.5
9/3/2003 3:00	19	0.36	0.318	-2.3
9/3/2003 3:30	19	0.36	0.319	-1.5
9/3/2003 4:00	19	0.361	0.319	-2.8
9/3/2003 4:30	19	0.361	0.32	-1.9
9/3/2003 5:00	19	0.362	0.32	-2.1
9/3/2003 5:30	19	0.362	0.32	-0.7
9/3/2003 6:00	19	0.362	0.321	-2.3
9/3/2003 6:30	19	0.362	0.321	-1.4
9/3/2003 7:00	19	0.363	0.322	-1.5
9/3/2003 7:30	19	0.363	0.322	-2.4
9/3/2003 8:00	19	0.364	0.322	-2.6
9/3/2003 8:20	19.01	0.364	0.322	-5.4
9/3/2003 8:29	19.01	0.364	0.322	-1
9/3/2003 8:30	19.01	0.364	0.322	-1.2
9/3/2003 8:44	19.04	0.364	0.323	-3.3
9/3/2003 8:59	19.05	0.364	0.323	-0.9
9/3/2003 9:00	19.05	0.365	0.323	-2
9/3/2003 9:14	19.05	0.365	0.323	-2.5
9/3/2003 9:29	19.05	0.365	0.323	-3.7
9/3/2003 9:30	19.05	0.365	0.324	-2.2
9/3/2003 9:44	19.05	0.365	0.323	-3.3
9/3/2003 9:59	19.05	0.365	0.324	-1.8
9/3/2003 10:00	19.05	0.365	0.324	-2.3
9/3/2003 10:00	19.05	0.365	0.324	-2.3
9/3/2003 10:14	19.05	0.366	0.324	-2.5
9/3/2003 10:29	19.05	0.366	0.324	-1.2
9/3/2003 10:30	19.05	0.366	0.324	-2.7
9/3/2003 10:30	19.05	0.366	0.324	-2.6
9/3/2003 10:44	19.05	0.366	0.324	-2.3
9/3/2003 10:59	19.05	0.366	0.324	-1.8
9/3/2003 11:00	19.05	0.366	0.325	-2.4
9/3/2003 11:00	19.05	0.366	0.325	-2.3

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/3/2003 11:14	19.05	0.367	0.325	-2.8
9/3/2003 11:29	19.05	0.367	0.326	-1.9
9/3/2003 11:30	19.05	0.368	0.326	-1.8
9/3/2003 11:30	19.05	0.367	0.326	-1.8
9/3/2003 11:44	19.05	0.367	0.326	-1.9
9/3/2003 11:59	19.05	0.368	0.326	-2
9/3/2003 12:00	19.05	0.368	0.326	-1.7
9/3/2003 12:14	19.05	0.367	0.326	-2.7
9/3/2003 12:29	19.05	0.368	0.326	-2.7
9/3/2003 12:30	19.05	0.368	0.326	-2.2
9/3/2003 12:44	19.05	0.368	0.326	-1.1
9/3/2003 12:59	19.06	0.368	0.326	-2.3
9/3/2003 13:00	19.05	0.368	0.326	-2.2
9/3/2003 13:14	19.06	0.368	0.327	-2.7
9/3/2003 13:29	19.06	0.369	0.327	-3.7
9/3/2003 13:30	19.05	0.369	0.327	-1.8
9/3/2003 13:44	19.06	0.369	0.327	-2.8
9/3/2003 13:59	19.05	0.369	0.327	-2.2
9/3/2003 14:00	19.05	0.369	0.327	-1.9
9/3/2003 14:14	19.05	0.369	0.328	-2.7
9/3/2003 14:29	19.06	0.37	0.328	-3.5
9/3/2003 14:30	19.05	0.37	0.328	-2.1
9/3/2003 14:30	19.05	0.37	0.328	-2.1
9/3/2003 14:44	19.06	0.37	0.328	-3.4
9/3/2003 14:59	19.06	0.37	0.328	-1.8
9/3/2003 15:00	19.05	0.37	0.328	-2.1
9/3/2003 15:00	19.05	0.37	0.328	-2.1
9/3/2003 15:14	19.06	0.37	0.328	-1
9/3/2003 15:29	19.06	0.37	0.328	-1.7
9/3/2003 15:30	19.05	0.371	0.329	-2.3
9/3/2003 15:30	19.05	0.371	0.329	-2.3
9/3/2003 15:44	19.06	0.371	0.329	-2.1
9/3/2003 15:59	19.06	0.371	0.329	-3
9/3/2003 16:00	19.06	0.371	0.329	-1.9
9/3/2003 16:00	19.06	0.371	0.329	-1.9
9/3/2003 16:14	19.06	0.371	0.329	-2
9/3/2003 16:29	19.06	0.371	0.329	-1.7
9/3/2003 16:30	19.06	0.371	0.329	-2.1
9/3/2003 16:44	19.06	0.371	0.329	-2.3
9/3/2003 16:59	19.06	0.372	0.329	-3.7
9/3/2003 17:00	19.05	0.372	0.329	-2
9/3/2003 17:14	19.06	0.372	0.33	-1.6
9/3/2003 17:29	19.06	0.372	0.33	-0.8
9/3/2003 17:30	19.05	0.372	0.33	-2.5
9/3/2003 17:44	19.06	0.372	0.33	-1
9/3/2003 17:59	19.05	0.373	0.33	-1.8
9/3/2003 18:00	19.05	0.372	0.33	-2.6
9/3/2003 18:14	19.06	0.373	0.33	-2.9
9/3/2003 18:29	19.06	0.373	0.33	-2.2
9/3/2003 18:30	19.05	0.373	0.331	-2.7
9/3/2003 18:44	19.06	0.373	0.331	-2.1
9/3/2003 18:59	19.05	0.373	0.331	-1.7

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/3/2003 19:00	19.05	0.373	0.331	-1.9
9/3/2003 19:00	19.05	0.373	0.331	-2
9/3/2003 19:14	19.06	0.373	0.331	-2.2
9/3/2003 19:29	19.06	0.374	0.331	-2.9
9/3/2003 19:30	19.05	0.374	0.331	-1.8
9/3/2003 19:30	19.05	0.374	0.331	-1.8
9/3/2003 19:44	19.05	0.374	0.331	-1
9/3/2003 19:59	19.05	0.374	0.332	-2.3
9/3/2003 20:00	19.05	0.374	0.332	-2.2
9/3/2003 20:00	19.05	0.374	0.332	-2.2
9/3/2003 20:14	19.05	0.374	0.332	-2.9
9/3/2003 20:29	19.05	0.375	0.332	-2.4
9/3/2003 20:30	19.05	0.375	0.332	-2.3
9/3/2003 20:30	19.05	0.375	0.332	-2.1
9/3/2003 20:44	19.05	0.374	0.332	-2.9
9/3/2003 20:59	19.05	0.374	0.332	-2.8
9/3/2003 21:00	19.05	0.374	0.332	-2.6
9/3/2003 21:00	19.05	0.374	0.332	-2.7
9/3/2003 21:14	19.05	0.375	0.332	-1.9
9/3/2003 21:29	19.05	0.374	0.332	-1.9
9/3/2003 21:30	19.05	0.375	0.332	-2.3
9/3/2003 21:44	19.05	0.375	0.332	-2.1
9/3/2003 21:59	19.05	0.376	0.333	-3.4
9/3/2003 22:00	19.05	0.375	0.333	-2.6
9/3/2003 22:14	19.05	0.376	0.333	-2
9/3/2003 22:29	19.05	0.376	0.333	-2.4
9/3/2003 22:30	19.05	0.376	0.333	-2
9/3/2003 22:44	19.05	0.376	0.333	-2.1
9/3/2003 22:59	19.05	0.376	0.333	-2.4
9/3/2003 23:00	19.05	0.376	0.334	-2.2
9/3/2003 23:14	19.05	0.376	0.333	-1.8
9/3/2003 23:29	19.05	0.376	0.334	-1.8
9/3/2003 23:30	19.05	0.376	0.333	-1.9
9/3/2003 23:30	19.05	0.376	0.333	-1.9
9/3/2003 23:44	19.05	0.377	0.334	-2.3
9/3/2003 23:59	19.05	0.377	0.334	-3.6
9/4/2003 0:00	19.05	0.377	0.334	-2.4
9/4/2003 0:00	19.05	0.377	0.334	-2.3
9/4/2003 0:14	19.05	0.377	0.334	-2
9/4/2003 0:29	19.05	0.377	0.334	-2.5
9/4/2003 0:30	19.05	0.377	0.334	-2.5
9/4/2003 0:30	19.05	0.377	0.334	-2.3
9/4/2003 0:44	19.05	0.377	0.335	-2.5
9/4/2003 0:59	19.05	0.377	0.335	-1.8
9/4/2003 1:00	19.05	0.377	0.335	-2.5
9/4/2003 1:00	19.05	0.377	0.335	-2.4
9/4/2003 1:14	19.05	0.378	0.335	-2.5
9/4/2003 1:29	19.05	0.378	0.335	-1.9
9/4/2003 1:30	19.05	0.378	0.335	-1.9
9/4/2003 1:30	19.05	0.378	0.335	-1.9
9/4/2003 1:44	19.05	0.378	0.335	-2.3
9/4/2003 1:59	19.05	0.378	0.335	-2.3

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/4/2003 2:00	19.05	0.378	0.335	-2.1
9/4/2003 2:14	19.05	0.378	0.335	-2.2
9/4/2003 2:29	19.05	0.378	0.335	-2.5
9/4/2003 2:30	19.05	0.379	0.336	-2.4
9/4/2003 2:44	19.05	0.378	0.335	-2.3
9/4/2003 2:59	19.05	0.379	0.336	-2.4
9/4/2003 3:00	19.05	0.379	0.336	-1.9
9/4/2003 3:14	19.05	0.379	0.336	-2.3
9/4/2003 3:29	19.05	0.378	0.335	-1.9
9/4/2003 3:30	19.05	0.379	0.336	-1.9
9/4/2003 3:44	19.05	0.379	0.336	-2.4
9/4/2003 3:59	19.05	0.379	0.336	-1.9
9/4/2003 4:00	19.05	0.379	0.336	-2.3
9/4/2003 4:14	19.05	0.379	0.336	-1.4
9/4/2003 4:29	19.05	0.379	0.336	-1.7
9/4/2003 4:30	19.05	0.379	0.336	-2.1
9/4/2003 4:30	19.05	0.379	0.336	-2.2
9/4/2003 5:00	19.01	0.38	0.336	-1.6
9/4/2003 5:30	19	0.379	0.336	-2.8
9/4/2003 6:00	19	0.38	0.336	-1.9
9/4/2003 6:30	19	0.38	0.336	-2.6
9/4/2003 7:00	19	0.38	0.337	-3.2
9/4/2003 7:30	19	0.381	0.337	-2.2
9/4/2003 8:00	19	0.381	0.337	-3
9/4/2003 8:30	19	0.381	0.337	-1.4
9/4/2003 9:00	19	0.381	0.337	-1.4
9/4/2003 9:30	19	0.381	0.337	-1.8
9/4/2003 10:00	19	0.381	0.337	-2.6
9/4/2003 10:30	19	0.381	0.337	-2.3
9/4/2003 11:00	19	0.381	0.337	-3.4
9/4/2003 11:30	19	0.381	0.338	-1.5
9/4/2003 12:00	19	0.381	0.338	-2.5
9/4/2003 12:30	19	0.382	0.338	-2.2
9/4/2003 13:00	19	0.382	0.338	-2.5
9/4/2003 13:30	19	0.382	0.338	-3.1
9/4/2003 14:00	19	0.382	0.338	-1.8
9/4/2003 14:30	19	0.382	0.338	-1.8
9/4/2003 15:00	19	0.382	0.338	-1.4
9/4/2003 15:30	19	0.382	0.339	-2.3
9/4/2003 16:00	19	0.383	0.339	-2.1
9/4/2003 16:30	19	0.383	0.339	-2.4
9/4/2003 17:00	19	0.383	0.339	-1.8
9/4/2003 17:30	19	0.383	0.339	-2.5
9/4/2003 18:00	19	0.383	0.339	-2.6
9/4/2003 18:30	19	0.383	0.339	-0.1
9/4/2003 19:00	19	0.383	0.339	-2.5
9/4/2003 19:30	19	0.383	0.339	-2.6
9/4/2003 20:00	19	0.383	0.339	-1.9
9/9/2003 16:17	18.99	0.383	0.339	-2.3
9/9/2003 16:25	19	0.383	0.339	-1.8
9/9/2003 16:30	19	0.383	0.339	-3.9
9/9/2003 17:00	19.03	0.383	0.34	-2.5

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/9/2003 17:30	19.04	0.383	0.339	-2
9/9/2003 18:00	19.04	0.383	0.339	-1.8
9/9/2003 18:30	19.04	0.383	0.34	-2.3
9/9/2003 19:00	19.04	0.383	0.34	-2.3
9/9/2003 19:30	19.04	0.383	0.34	-2
9/9/2003 20:00	19.04	0.383	0.34	-2.1
9/9/2003 20:30	19.04	0.383	0.339	-2.3
9/9/2003 21:00	19.04	0.383	0.34	-2.4
9/9/2003 21:30	19.04	0.383	0.339	-2.4
9/9/2003 22:00	19.04	0.383	0.34	-2.2
9/9/2003 22:30	19.04	0.383	0.34	-2.1
9/9/2003 23:00	19.04	0.383	0.34	-2.2
9/9/2003 23:30	19.04	0.383	0.34	-1.9
9/10/2003 0:00	19.04	0.383	0.34	-2
9/10/2003 0:30	19.04	0.383	0.339	-2
9/10/2003 1:00	19.04	0.383	0.34	-2
9/10/2003 1:30	19.04	0.383	0.34	-2
9/10/2003 2:00	19.04	0.383	0.339	-2
9/10/2003 2:30	19.04	0.383	0.339	-2.2
9/10/2003 3:00	19.04	0.383	0.34	-2.1
9/10/2003 3:30	19.04	0.383	0.339	-1.9
9/10/2003 4:00	19.04	0.383	0.339	-2.1
9/10/2003 4:30	19.04	0.383	0.339	-2.1
9/10/2003 5:00	19.04	0.383	0.339	-1.9
9/10/2003 5:30	19.04	0.383	0.34	-2.5
9/10/2003 6:00	19.04	0.383	0.339	-2.3
9/10/2003 6:30	19.04	0.383	0.339	-2.4
9/10/2003 7:00	19.04	0.383	0.34	-2.6
9/10/2003 7:30	19.04	0.383	0.34	-2.3
9/10/2003 8:00	19.04	0.383	0.339	-2.1
9/10/2003 8:30	19.04	0.383	0.34	-2.3
9/10/2003 9:00	19.04	0.383	0.339	-2.3
9/10/2003 9:30	19.04	0.383	0.34	-2.1
9/10/2003 10:00	19.04	0.383	0.339	-2.3
9/10/2003 10:30	19.04	0.383	0.339	-2
9/10/2003 11:00	19.04	0.383	0.339	-2.3
9/10/2003 11:30	19.04	0.383	0.339	-2.3
9/10/2003 12:00	19.04	0.383	0.34	-2.9
9/10/2003 12:30	19.04	0.383	0.34	-2.1
9/10/2003 13:00	19.04	0.383	0.34	-2.1
9/10/2003 13:30	19.04	0.383	0.34	-2.1
9/10/2003 14:00	19.04	0.383	0.339	-2.2
9/10/2003 14:30	19.04	0.383	0.339	-1.9
9/10/2003 15:00	19.04	0.383	0.34	-2.2
9/10/2003 15:30	19.04	0.383	0.34	-1.9
9/10/2003 16:00	19.04	0.383	0.34	-1.7
9/10/2003 16:30	19.04	0.383	0.34	-2.3
9/10/2003 17:00	19.04	0.383	0.34	-2.1
9/10/2003 17:30	19.04	0.383	0.34	-2.6
9/10/2003 18:00	19.04	0.383	0.339	-2.2
9/10/2003 18:30	19.04	0.383	0.34	-2.1
9/10/2003 19:00	19.04	0.383	0.34	-2.1

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/10/2003 19:30	19.04	0.383	0.339	-2.4
9/10/2003 20:00	19.04	0.383	0.34	-2.3
9/10/2003 20:30	19.04	0.383	0.34	-1.8
9/10/2003 21:00	19.04	0.383	0.339	-2.2
9/10/2003 21:30	19.04	0.383	0.34	-2.1
9/10/2003 22:00	19.04	0.383	0.34	-2.1
9/10/2003 22:30	19.04	0.383	0.34	-2
9/10/2003 23:00	19.04	0.383	0.34	-2.2
9/10/2003 23:30	19.04	0.383	0.34	-1.9
9/11/2003 0:00	19.04	0.383	0.339	-2
9/11/2003 0:30	19.04	0.383	0.339	-1.7
9/11/2003 1:00	19.04	0.383	0.34	-2
9/11/2003 1:30	19.04	0.383	0.34	-2.3
9/11/2003 2:00	19.01	0.383	0.339	-1.8
9/11/2003 2:30	19	0.383	0.339	-2.4
9/11/2003 3:00	19	0.383	0.339	-2.1
9/11/2003 3:30	19	0.383	0.339	-2.5
9/11/2003 4:00	19	0.383	0.339	-1.5
9/11/2003 4:30	19	0.383	0.339	-2.5
9/11/2003 5:00	19	0.383	0.339	-1.4
9/11/2003 5:30	19	0.383	0.339	-1.7
9/11/2003 6:00	18.99	0.383	0.339	-2.4
9/11/2003 6:30	18.99	0.383	0.339	-1.6
9/11/2003 7:00	19	0.383	0.339	-3.3
9/11/2003 7:30	18.99	0.383	0.339	-2.8
9/11/2003 8:00	18.99	0.383	0.339	-2
9/11/2003 8:30	18.99	0.383	0.339	-1.6
9/11/2003 8:48	18.99	0.384	0.34	-1.6
9/11/2003 8:50	18.99	0.383	0.339	-1.9
9/11/2003 9:00	19.01	0.383	0.339	-2.5
9/11/2003 9:05	19.03	0.383	0.339	-2.2
9/11/2003 9:20	19.04	0.383	0.339	-1.8
9/11/2003 9:30	19.04	0.383	0.34	-2.3
9/11/2003 9:35	19.04	0.383	0.339	-2.4
9/11/2003 9:50	19.04	0.382	0.339	-2.3
9/11/2003 10:00	19.04	0.383	0.34	-2.6
9/11/2003 10:05	19.04	0.383	0.34	-2.2
9/11/2003 10:20	19.04	0.383	0.339	-2.1
9/11/2003 10:30	19.04	0.383	0.34	-2.1
9/11/2003 10:35	19.04	0.383	0.339	-1.9
9/11/2003 10:50	19.04	0.383	0.34	-2.1
9/11/2003 11:00	19.04	0.383	0.34	-2.2
9/11/2003 11:05	19.04	0.383	0.339	-2.2
9/11/2003 11:20	19.04	0.383	0.339	-2.3
9/11/2003 11:30	19.04	0.383	0.339	-2.7
9/11/2003 11:35	19.04	0.383	0.339	-2.3
9/11/2003 11:50	19.04	0.383	0.339	-2.1
9/11/2003 12:00	19.04	0.383	0.339	-2.5
9/11/2003 12:05	19.04	0.383	0.339	-2
9/11/2003 12:20	19.04	0.383	0.339	-1.9
9/11/2003 12:30	19.04	0.383	0.34	-2.4
9/11/2003 12:35	19.04	0.383	0.339	-2.2

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/11/2003 12:50	19.04	0.383	0.339	-2.2
9/11/2003 13:00	19.04	0.383	0.339	-1.8
9/11/2003 13:05	19.04	0.383	0.339	-1.9
9/11/2003 13:20	19.05	0.383	0.339	-2.3
9/11/2003 13:30	19.04	0.383	0.34	-2
9/11/2003 13:35	19.05	0.383	0.339	-2.1
9/11/2003 13:50	19.05	0.383	0.339	-2.1
9/11/2003 14:00	19.04	0.383	0.339	-2.2
9/11/2003 14:05	19.05	0.383	0.339	-2.1
9/11/2003 14:20	19.05	0.383	0.339	-2
9/11/2003 14:30	19.04	0.383	0.34	-2.1
9/11/2003 14:35	19.05	0.383	0.339	-2.3
9/11/2003 14:50	19.05	0.383	0.339	-2.4
9/11/2003 15:00	19.04	0.383	0.339	-2.4
9/11/2003 15:05	19.05	0.383	0.339	-2.4
9/11/2003 15:20	19.05	0.383	0.339	-2.2
9/11/2003 15:30	19.04	0.383	0.339	-2.3
9/11/2003 15:30	19.04	0.383	0.34	-2.1
9/11/2003 15:32	19.04	0.383	0.34	-2.2
9/11/2003 15:47	19.04	0.383	0.339	-2.2
9/11/2003 15:58	19.04	0.383	0.34	-2.7
9/11/2003 16:00	19.05	0.383	0.34	-2.9
9/11/2003 16:13	19.05	0.383	0.34	-1.8
9/11/2003 16:28	19.05	0.383	0.339	-2.2
9/11/2003 16:30	19.04	0.383	0.34	-2.3
9/11/2003 16:43	19.05	0.383	0.339	-2.1
9/11/2003 16:58	19.05	0.383	0.339	-2.4
9/11/2003 17:00	19.04	0.383	0.339	-2
9/11/2003 17:13	19.05	0.383	0.339	-1.9
9/11/2003 17:28	19.05	0.382	0.339	-2
9/11/2003 17:30	19.04	0.383	0.339	-1.7
9/11/2003 17:30	19.05	0.383	0.339	-1.8
9/11/2003 17:43	19.05	0.383	0.339	-2.4
9/11/2003 17:58	19.05	0.383	0.339	-2
9/11/2003 18:00	19.04	0.383	0.339	-2.2
9/11/2003 18:00	19.04	0.383	0.339	-2.2
9/11/2003 18:13	19.05	0.383	0.34	-1.9
9/11/2003 18:28	19.05	0.383	0.339	-2.1
9/11/2003 18:30	19.04	0.383	0.34	-2.3
9/11/2003 18:30	19.04	0.383	0.34	-2.2
9/11/2003 18:43	19.05	0.383	0.339	-2.1
9/11/2003 18:58	19.05	0.383	0.339	-2
9/11/2003 19:00	19.04	0.383	0.339	-2
9/11/2003 19:00	19.04	0.383	0.34	-2
9/11/2003 19:13	19.05	0.383	0.339	-2.1
9/11/2003 19:28	19.05	0.383	0.339	-2
9/11/2003 19:30	19.04	0.383	0.34	-2.3
9/11/2003 19:43	19.05	0.383	0.339	-1.9
9/11/2003 19:58	19.05	0.383	0.339	-2.3
9/11/2003 20:00	19.04	0.383	0.339	-2.1
9/11/2003 20:13	19.05	0.383	0.339	-2.5
9/11/2003 20:28	19.05	0.382	0.339	-2.4

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/11/2003 20:30	19.04	0.383	0.339	-2.3
9/11/2003 20:43	19.05	0.382	0.339	-2.3
9/11/2003 20:58	19.05	0.383	0.339	-2
9/11/2003 21:00	19.04	0.383	0.339	-2
9/11/2003 21:13	19.04	0.383	0.339	-2.1
9/11/2003 21:28	19.05	0.383	0.339	-2.5
9/11/2003 21:30	19.04	0.383	0.339	-2.1
9/11/2003 21:43	19.05	0.383	0.339	-2
9/11/2003 21:58	19.04	0.383	0.339	-2.4
9/11/2003 22:00	19.04	0.383	0.34	-2.4
9/11/2003 22:00	19.04	0.383	0.34	-2.4
9/11/2003 22:13	19.04	0.383	0.339	-1.9
9/11/2003 22:28	19.04	0.383	0.339	-2.2
9/11/2003 22:30	19.04	0.383	0.339	-2.3
9/11/2003 22:30	19.04	0.383	0.339	-2.4
9/11/2003 22:43	19.04	0.383	0.339	-2
9/11/2003 22:58	19.05	0.383	0.339	-2.1
9/11/2003 23:00	19.04	0.383	0.34	-2.4
9/11/2003 23:00	19.04	0.383	0.34	-2.3
9/11/2003 23:13	19.04	0.383	0.339	-2.2
9/11/2003 23:28	19.05	0.383	0.339	-1.9
9/11/2003 23:30	19.04	0.383	0.34	-2.2
9/11/2003 23:30	19.04	0.383	0.34	-2.2
9/11/2003 23:43	19.05	0.382	0.339	-2
9/11/2003 23:58	19.05	0.383	0.339	-2.4
9/12/2003 0:00	19.04	0.383	0.339	-2.5
9/12/2003 0:13	19.05	0.383	0.339	-2
9/12/2003 0:28	19.04	0.383	0.339	-2.2
9/12/2003 0:30	19.04	0.383	0.339	-1.9
9/12/2003 0:43	19.04	0.383	0.339	-2.1
9/12/2003 0:58	19.04	0.383	0.339	-1.9
9/12/2003 1:00	19.04	0.383	0.34	-2
9/12/2003 1:13	19.04	0.383	0.339	-2.3
9/12/2003 1:28	19.05	0.383	0.339	-1.8
9/12/2003 1:30	19.04	0.383	0.34	-2.3
9/12/2003 1:43	19.05	0.383	0.339	-2.2
9/12/2003 1:58	19.05	0.383	0.339	-2.1
9/12/2003 2:00	19.04	0.383	0.34	-2.1
9/12/2003 2:13	19.05	0.383	0.339	-1.9
9/12/2003 2:28	19.05	0.383	0.339	-1.9
9/12/2003 2:30	19.04	0.383	0.339	-2.1
9/12/2003 2:30	19.04	0.383	0.339	-2.2
9/12/2003 2:43	19.05	0.383	0.339	-2.1
9/12/2003 2:58	19.05	0.383	0.339	-1.7
9/12/2003 3:00	19.04	0.383	0.339	-2.5
9/12/2003 3:00	19.04	0.383	0.339	-2.5
9/12/2003 3:13	19.05	0.383	0.339	-2.2
9/12/2003 3:28	19.05	0.383	0.339	-2.4
9/12/2003 3:30	19.04	0.383	0.34	-2.2
9/12/2003 3:30	19.04	0.383	0.34	-2.2
9/12/2003 3:43	19.05	0.383	0.339	-1.8
9/12/2003 3:58	19.05	0.383	0.339	-1.9

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/12/2003 4:00	19.04	0.383	0.34	-2.2
9/12/2003 4:00	19.04	0.383	0.339	-2.3
9/12/2003 4:13	19.05	0.383	0.34	-2.5
9/12/2003 4:28	19.05	0.383	0.34	-1.8
9/12/2003 4:30	19.04	0.383	0.34	-2.2
9/12/2003 4:30	19.04	0.383	0.34	-2.2
9/12/2003 4:43	19.05	0.383	0.339	-2.5
9/12/2003 4:58	19.05	0.383	0.339	-1.8
9/12/2003 5:00	19.04	0.383	0.339	-2.7
9/12/2003 5:13	19.05	0.383	0.339	-2.3
9/12/2003 5:28	19.05	0.383	0.339	-2
9/12/2003 5:30	19.04	0.383	0.339	-2.3
9/12/2003 5:43	19.05	0.383	0.339	-2.4
9/12/2003 5:58	19.05	0.383	0.339	-2.2
9/12/2003 6:00	19.04	0.383	0.339	-1.9
9/12/2003 6:13	19.05	0.383	0.339	-2.4
9/12/2003 6:28	19.05	0.383	0.339	-2.2
9/12/2003 6:30	19.04	0.383	0.34	-2.3
9/12/2003 6:43	19.04	0.383	0.339	-2.1
9/12/2003 6:58	19.05	0.383	0.339	-1.9
9/12/2003 7:00	19.04	0.383	0.34	-2.4
9/12/2003 7:00	19.04	0.383	0.34	-2.4
9/12/2003 7:13	19.05	0.383	0.339	-2.4
9/12/2003 7:28	19.04	0.382	0.339	-2.1
9/12/2003 7:30	19.04	0.383	0.339	-2.2
9/12/2003 7:30	19.04	0.383	0.339	-2.3
9/12/2003 7:43	19.04	0.383	0.339	0
9/12/2003 7:58	19.05	0.383	0.34	-2.5
9/12/2003 8:00	19.04	0.383	0.34	-2.7
9/12/2003 8:00	19.04	0.383	0.34	-2.6
9/12/2003 8:13	19.04	0.382	0.339	-2
9/12/2003 8:28	19.04	0.383	0.339	-2
9/12/2003 8:30	19.04	0.383	0.339	-1.9
9/12/2003 8:30	19.04	0.383	0.339	-2
9/12/2003 8:43	19.04	0.383	0.339	-2.2
9/12/2003 8:58	19.04	0.383	0.339	-2.1
9/12/2003 9:00	19.04	0.383	0.339	-2.1
9/12/2003 9:00	19.04	0.383	0.339	-2.1
9/12/2003 9:13	19.04	0.383	0.339	-2.6
9/12/2003 9:28	19.04	0.383	0.339	-3.4
9/12/2003 9:30	19.04	0.383	0.339	-2.2
9/12/2003 9:43	19.04	0.383	0.339	-2
9/12/2003 9:58	19.04	0.382	0.339	-2.1
9/12/2003 10:00	19.04	0.383	0.339	-2.3
9/12/2003 10:13	19.04	0.383	0.339	-4.4
9/12/2003 10:28	19.04	0.383	0.339	-2.3
9/12/2003 10:30	19.04	0.383	0.34	-2
9/12/2003 10:43	19.04	0.383	0.339	-1.8
9/12/2003 10:58	19.04	0.383	0.339	-2.1
9/12/2003 11:00	19.04	0.383	0.339	-2.1
9/12/2003 11:13	19.04	0.383	0.339	-2.4
9/12/2003 11:28	19.04	0.383	0.339	-2.4

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/12/2003 11:30	19.04	0.383	0.34	-1.7
9/12/2003 11:43	19.04	0.383	0.339	-3.3
9/12/2003 11:58	19.05	0.383	0.339	-5
9/12/2003 12:00	19.04	0.383	0.34	-2.3
9/12/2003 12:00	19.04	0.383	0.34	-2.3
9/12/2003 12:13	19.05	0.383	0.339	-2
9/12/2003 12:28	19.05	0.383	0.339	-1.8
9/12/2003 12:30	19.04	0.383	0.339	-2.1
9/12/2003 12:30	19.04	0.383	0.339	-2
9/12/2003 12:43	19.05	0.383	0.339	-0.7
9/12/2003 12:58	19.05	0.383	0.34	-4.2
9/12/2003 13:00	19.04	0.383	0.34	-2.2
9/12/2003 13:00	19.04	0.383	0.34	-2.1
9/12/2003 13:13	19.05	0.383	0.339	-2.1
9/12/2003 13:28	19.05	0.383	0.339	-2.6
9/12/2003 13:30	19.04	0.383	0.34	-2.5
9/12/2003 13:30	19.04	0.383	0.34	-2.4
9/12/2003 13:43	19.05	0.383	0.34	-1.9
9/12/2003 13:58	19.05	0.383	0.339	-1.7
9/12/2003 14:00	19.04	0.383	0.339	-2.2
9/12/2003 14:13	19.05	0.383	0.339	-1.5
9/12/2003 14:28	19.05	0.383	0.339	-2.2
9/12/2003 14:30	19.04	0.383	0.339	-2.4
9/12/2003 14:43	19.05	0.383	0.34	-2.5
9/12/2003 14:58	19.05	0.383	0.339	-1
9/12/2003 15:00	19.04	0.383	0.34	-2.1
9/12/2003 15:13	19.05	0.383	0.339	-2.8
9/12/2003 15:28	19.05	0.383	0.339	-1
9/12/2003 15:30	19.04	0.383	0.34	-2.1
9/12/2003 15:43	19.05	0.383	0.339	-3.4
9/12/2003 15:58	19.05	0.383	0.339	-1.4
9/12/2003 16:00	19.04	0.383	0.339	-2
9/12/2003 16:13	19.05	0.383	0.339	-1.9
9/12/2003 16:28	19.05	0.383	0.339	-2.4
9/12/2003 16:30	19.04	0.383	0.34	-2.1
9/12/2003 16:30	19.04	0.383	0.34	-2
9/12/2003 16:43	19.05	0.383	0.339	-2.6
9/12/2003 16:58	19.05	0.383	0.339	-2.6
9/12/2003 17:00	19.04	0.383	0.339	-2.5
9/12/2003 17:00	19.04	0.383	0.339	-2.6
9/12/2003 17:13	19.05	0.383	0.339	-1.8
9/12/2003 17:28	19.05	0.383	0.34	-2.7
9/12/2003 17:30	19.04	0.383	0.339	-2
9/12/2003 17:30	19.04	0.383	0.339	-2
9/12/2003 17:43	19.05	0.383	0.339	-3.2
9/12/2003 17:58	19.05	0.382	0.339	-2.6
9/12/2003 18:00	19.04	0.383	0.339	-2.4
9/12/2003 18:00	19.04	0.383	0.339	-2.3
9/12/2003 18:13	19.05	0.383	0.339	-2.5
9/12/2003 18:28	19.05	0.383	0.339	-2
9/12/2003 18:30	19.04	0.383	0.339	-2.2
9/12/2003 18:30	19.04	0.383	0.339	-2.3

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/12/2003 18:43	19.05	0.383	0.339	-2.1
9/12/2003 18:58	19.05	0.383	0.339	-2
9/12/2003 19:00	19.04	0.383	0.339	-2
9/12/2003 19:13	19.05	0.383	0.339	-1.9
9/12/2003 19:28	19.04	0.383	0.34	-2.3
9/12/2003 19:30	19.04	0.383	0.34	-2.2
9/12/2003 19:43	19.05	0.383	0.339	-2.4
9/12/2003 19:58	19.05	0.383	0.339	-2.4
9/12/2003 20:00	19.04	0.383	0.339	-2
9/12/2003 20:30	19	0.383	0.339	-2.1
9/12/2003 21:00	19	0.383	0.339	-1.3
9/12/2003 21:30	19	0.383	0.339	-2.3
9/12/2003 22:30	19	0.383	0.339	-1.8
9/12/2003 23:00	19	0.383	0.339	-2.4
9/13/2003 10:00	18.99	0.383	0.339	-2.4
9/13/2003 10:30	18.99	0.383	0.339	-2.2
9/13/2003 11:00	18.99	0.383	0.339	-2.1
9/13/2003 11:30	18.99	0.383	0.339	-1.9
9/13/2003 12:00	18.99	0.383	0.339	-1.7
9/13/2003 12:30	18.99	0.383	0.339	-3
9/13/2003 13:00	18.99	0.383	0.339	-2.5
9/13/2003 13:30	18.99	0.383	0.339	-3.2
9/13/2003 14:00	18.99	0.383	0.339	-1.1
9/13/2003 14:30	18.99	0.383	0.339	-2.1
9/13/2003 15:00	19	0.383	0.339	-1.4
9/13/2003 15:30	18.99	0.383	0.339	-1.2
9/13/2003 16:00	19	0.383	0.339	-2.1
9/13/2003 16:30	18.99	0.383	0.339	-2.9
9/13/2003 17:00	18.99	0.383	0.339	-2.8
9/13/2003 17:30	18.99	0.383	0.339	-2.7
9/13/2003 18:00	18.99	0.383	0.339	-2.7
9/13/2003 18:30	18.99	0.383	0.339	-1.2
9/13/2003 19:00	18.99	0.383	0.339	-2
9/13/2003 19:30	18.99	0.383	0.339	-2.8
9/13/2003 20:00	18.99	0.383	0.339	-4
9/13/2003 20:30	18.99	0.383	0.339	-3.3
9/13/2003 21:00	18.99	0.383	0.339	-3.1
9/13/2003 21:30	18.99	0.383	0.339	-3.6
9/13/2003 22:00	18.99	0.383	0.339	-1.8
9/13/2003 22:30	18.99	0.383	0.339	-2.1
9/13/2003 23:00	18.99	0.383	0.339	-3
9/13/2003 23:30	18.99	0.383	0.339	-2.4
9/14/2003 0:00	18.99	0.383	0.339	-2
9/14/2003 0:30	18.99	0.383	0.339	-1.6
9/14/2003 1:00	18.99	0.383	0.339	-2.9
9/14/2003 1:30	18.99	0.383	0.339	-2.3
9/14/2003 2:00	18.99	0.383	0.339	-1.9
9/14/2003 2:30	18.99	0.383	0.339	-2.4
9/14/2003 3:00	18.99	0.383	0.339	-2.4
9/14/2003 3:30	18.99	0.383	0.339	-2.9
9/14/2003 4:00	18.99	0.383	0.339	-2.2
9/14/2003 4:30	18.99	0.383	0.339	-1.7

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/14/2003 5:00	18.99	0.383	0.339	-3.5
9/14/2003 5:30	18.99	0.383	0.339	-1.9
9/14/2003 6:00	18.99	0.383	0.339	-3.3
9/14/2003 6:30	18.99	0.383	0.339	-2.1
9/14/2003 7:00	18.99	0.383	0.339	-1.9
9/14/2003 7:30	18.99	0.383	0.339	-1.2
9/14/2003 8:00	18.99	0.383	0.339	-2.9
9/14/2003 8:30	18.99	0.383	0.339	-1.9
9/14/2003 9:00	18.99	0.383	0.339	-2.4
9/14/2003 9:30	18.99	0.383	0.339	-2.3
9/14/2003 10:00	18.99	0.383	0.339	-2.8
9/14/2003 10:30	18.99	0.383	0.339	-1.4
9/14/2003 11:00	18.99	0.383	0.339	-1.3
9/14/2003 11:30	18.99	0.383	0.339	-2.4
9/14/2003 12:00	18.99	0.383	0.339	-2.9
9/14/2003 12:30	18.99	0.383	0.339	-2.2
9/14/2003 13:00	18.99	0.383	0.339	-2.1
9/14/2003 13:30	18.99	0.383	0.339	-0.8
9/14/2003 14:00	18.99	0.383	0.339	-3.4
9/14/2003 14:30	18.99	0.383	0.339	-2.6
9/14/2003 15:00	18.99	0.383	0.339	-2.1
9/14/2003 15:30	18.99	0.383	0.339	-2.3
9/14/2003 16:00	18.99	0.383	0.339	-2
9/14/2003 16:30	18.99	0.383	0.339	-3.1
9/14/2003 17:00	18.99	0.383	0.339	-2.4
9/14/2003 17:30	18.99	0.383	0.339	-1.2
9/14/2003 18:00	18.99	0.383	0.339	-2.7
9/14/2003 18:30	18.99	0.383	0.339	-2
9/14/2003 19:00	18.99	0.383	0.339	-2.7
9/14/2003 19:30	18.99	0.383	0.339	-3.3
9/14/2003 20:00	18.99	0.383	0.339	-2.4
9/14/2003 20:30	18.99	0.383	0.339	-1.9
9/14/2003 21:00	18.99	0.383	0.339	-1.2
9/14/2003 21:30	18.99	0.383	0.339	-2.6
9/14/2003 22:00	18.99	0.383	0.339	-2.6
9/14/2003 22:30	18.99	0.383	0.339	-2.9
9/14/2003 23:00	18.99	0.383	0.339	-2.5
9/14/2003 23:30	18.99	0.383	0.339	-2.3
9/15/2003 0:00	18.99	0.383	0.339	-2.1
9/15/2003 0:30	18.99	0.383	0.339	-0.6
9/15/2003 1:00	18.99	0.383	0.339	-2.4
9/15/2003 1:30	18.99	0.383	0.339	-2.4
9/15/2003 2:00	18.99	0.383	0.339	-2.6
9/15/2003 2:30	18.99	0.383	0.339	-2.1
9/15/2003 3:00	18.99	0.383	0.339	-2.2
9/15/2003 3:30	18.99	0.383	0.339	-1
9/15/2003 4:00	18.99	0.383	0.339	-1.9
9/15/2003 4:30	18.99	0.383	0.339	-2.7
9/15/2003 5:00	18.99	0.383	0.339	-3.1
9/15/2003 5:30	18.99	0.383	0.339	-2.9
9/15/2003 6:00	18.99	0.383	0.339	-2.3
9/15/2003 6:30	18.99	0.383	0.339	-2

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/15/2003 7:00	18.99	0.383	0.339	-1.9
9/15/2003 7:30	18.99	0.383	0.339	-2.3
9/15/2003 8:00	18.99	0.383	0.339	-3.1
9/15/2003 8:30	18.99	0.383	0.339	-2.6
9/15/2003 9:00	18.99	0.383	0.339	-2.7
9/15/2003 9:30	18.99	0.383	0.339	-3.2
9/15/2003 10:00	18.99	0.383	0.339	-1.9
9/15/2003 10:30	18.99	0.383	0.339	-2.9
9/15/2003 11:00	18.99	0.383	0.339	-1.4
9/15/2003 11:30	18.99	0.382	0.338	-1.7
9/15/2003 12:00	18.99	0.383	0.339	-1.8
9/15/2003 12:30	18.99	0.383	0.339	-0.9
9/15/2003 13:00	18.99	0.383	0.339	-3.5
9/15/2003 13:30	18.99	0.383	0.339	-1.4
9/15/2003 14:00	18.99	0.383	0.339	-1.2
9/15/2003 14:30	18.99	0.383	0.339	-2.4
9/15/2003 15:00	18.99	0.383	0.339	-2.6
9/15/2003 15:30	18.99	0.383	0.339	-3.1
9/15/2003 16:00	18.99	0.383	0.339	-2.2
9/15/2003 16:30	18.99	0.383	0.339	-2.9
9/15/2003 17:00	18.99	0.383	0.339	-3.1
9/15/2003 17:30	18.99	0.382	0.339	-2.6
9/15/2003 18:00	18.99	0.383	0.339	-2.2
9/15/2003 18:30	18.99	0.383	0.339	-3.4
9/15/2003 19:00	18.99	0.383	0.339	-1.4
9/15/2003 19:30	18.99	0.383	0.339	-2.4
9/15/2003 20:00	18.99	0.383	0.339	-2.6
9/15/2003 20:30	18.99	0.383	0.339	-0.7
9/15/2003 21:00	18.99	0.383	0.339	-2.3
9/15/2003 21:30	18.99	0.383	0.339	-2.8
9/15/2003 22:00	18.99	0.383	0.339	-2.4
9/15/2003 22:30	18.99	0.383	0.339	-2.1
9/15/2003 23:00	18.99	0.383	0.339	-1.5
9/15/2003 23:30	18.99	0.383	0.339	-2.2
9/16/2003 0:00	18.99	0.383	0.339	-1.5
9/16/2003 0:30	18.99	0.383	0.339	-2.3
9/16/2003 1:00	18.99	0.383	0.339	-2.2
9/16/2003 1:30	18.99	0.383	0.339	-3.1
9/16/2003 2:00	18.99	0.383	0.339	-0.6
9/16/2003 2:30	18.99	0.383	0.339	-2.7
9/16/2003 3:00	18.99	0.383	0.339	-3
9/16/2003 3:30	18.99	0.383	0.339	-2
9/16/2003 4:00	18.99	0.383	0.339	-2.4
9/16/2003 4:30	18.99	0.383	0.339	-2.9
9/16/2003 5:00	18.99	0.383	0.339	-2.7
9/16/2003 5:30	18.99	0.383	0.339	-2.9
9/16/2003 6:00	18.99	0.383	0.339	-1.5
9/16/2003 6:30	18.99	0.383	0.339	-2.6
9/16/2003 7:00	18.99	0.383	0.339	-2.1
9/16/2003 7:30	18.99	0.383	0.339	-1.5
9/16/2003 8:00	18.99	0.383	0.339	-2.5
9/16/2003 8:30	18.99	0.383	0.339	-4.9

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/16/2003 9:00	18.99	0.383	0.339	-1.5
9/16/2003 9:30	18.99	0.383	0.339	-1.7
9/16/2003 10:00	18.99	0.383	0.339	-2.6
9/16/2003 10:30	18.99	0.383	0.339	-3.4
9/16/2003 11:00	18.99	0.382	0.338	-1.9
9/16/2003 11:30	18.99	0.383	0.339	-2.3
9/16/2003 12:00	18.99	0.383	0.339	-2.8
9/16/2003 12:30	18.99	0.383	0.339	-1
9/16/2003 13:00	18.99	0.383	0.339	-1.4
9/16/2003 13:30	18.99	0.383	0.339	-2
9/16/2003 14:00	18.99	0.383	0.339	-3.4
9/16/2003 14:30	18.99	0.383	0.339	-1.8
9/16/2003 15:00	18.99	0.382	0.339	-1
9/16/2003 15:30	18.99	0.383	0.339	-2.8
9/16/2003 16:00	18.99	0.383	0.339	-1.9
9/16/2003 16:30	18.99	0.383	0.339	-3
9/16/2003 17:00	18.99	0.383	0.339	-2.4
9/16/2003 17:30	18.99	0.383	0.339	-3.7
9/16/2003 18:00	18.99	0.383	0.339	-0.8
9/16/2003 18:30	18.99	0.383	0.339	-2.8
9/16/2003 19:00	18.99	0.383	0.339	-3.4
9/16/2003 19:30	18.99	0.383	0.339	-3.5
9/16/2003 20:00	18.99	0.383	0.339	-1.9
9/16/2003 20:30	18.99	0.383	0.339	-1.6
9/16/2003 21:00	18.99	0.383	0.339	-2
9/16/2003 21:30	18.99	0.383	0.339	-2.1
9/16/2003 22:00	18.99	0.383	0.339	-3.5
9/16/2003 22:30	18.99	0.383	0.339	-3
9/16/2003 23:00	18.99	0.383	0.339	-2.5
9/16/2003 23:30	18.99	0.383	0.339	-2.3
9/17/2003 0:00	18.99	0.383	0.339	-2.9
9/17/2003 0:30	18.99	0.383	0.339	-1.4
9/17/2003 1:00	18.99	0.383	0.339	-2.6
9/17/2003 1:30	18.99	0.383	0.339	-2.4
9/17/2003 2:00	18.99	0.383	0.339	-1.7
9/17/2003 2:30	18.99	0.383	0.339	-3.2
9/17/2003 3:00	18.99	0.383	0.339	-2.4
9/17/2003 3:30	18.99	0.383	0.339	-2.3
9/17/2003 4:00	18.99	0.383	0.339	-2.7
9/17/2003 4:30	18.99	0.383	0.339	-0.6
9/17/2003 5:00	18.99	0.383	0.339	-4.4
9/17/2003 5:30	18.99	0.383	0.339	-2.3
9/17/2003 6:00	18.99	0.383	0.339	-2.7
9/17/2003 6:30	18.99	0.383	0.339	-1.8
9/17/2003 7:00	18.99	0.383	0.339	-1.4
9/17/2003 7:30	18.99	0.383	0.339	-2.8
9/17/2003 8:00	18.99	0.383	0.339	-2
9/17/2003 8:30	18.99	0.383	0.339	-2.2
9/17/2003 9:00	18.99	0.383	0.339	-1.3
9/17/2003 9:30	18.99	0.383	0.339	-1.3
9/17/2003 10:00	18.99	0.383	0.339	-2.2
9/17/2003 10:30	18.99	0.383	0.339	-2.1

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/17/2003 11:00	18.99	0.383	0.339	-2.8
9/17/2003 11:30	18.99	0.383	0.339	-2.9
9/17/2003 12:00	18.99	0.383	0.339	-2.1
9/17/2003 12:30	18.99	0.383	0.339	-3
9/17/2003 13:00	18.99	0.383	0.339	-1.3
9/17/2003 13:30	18.99	0.383	0.339	-2.8
9/17/2003 14:00	18.99	0.383	0.339	-1.7
9/17/2003 14:30	18.99	0.383	0.339	-1.9
9/17/2003 15:00	18.99	0.383	0.339	-2.3
9/17/2003 15:30	18.99	0.383	0.339	-2.2
9/17/2003 16:00	18.99	0.383	0.339	-2.9
9/17/2003 16:30	18.99	0.383	0.339	-3.2
9/17/2003 17:00	18.99	0.383	0.339	-2.5
9/17/2003 17:30	18.99	0.383	0.339	-1
9/17/2003 18:00	18.99	0.383	0.339	-2
9/17/2003 18:30	18.99	0.383	0.339	-1.5
9/17/2003 19:00	18.99	0.383	0.339	-2.9
9/17/2003 19:30	18.99	0.383	0.339	-2
9/17/2003 20:00	18.99	0.383	0.339	-3.5
9/17/2003 20:30	18.99	0.383	0.339	-2.8
9/17/2003 21:00	18.99	0.383	0.339	-2.6
9/17/2003 21:30	18.99	0.383	0.339	-1.4
9/17/2003 22:00	18.99	0.383	0.339	-1.7
9/17/2003 22:30	18.99	0.383	0.339	-1.8
9/17/2003 23:00	18.99	0.383	0.339	-1.5
9/17/2003 23:30	18.99	0.383	0.339	-1.8
9/18/2003 0:00	18.99	0.383	0.339	-2.6
9/18/2003 0:30	18.99	0.383	0.339	-3.4
9/18/2003 1:00	18.99	0.383	0.339	-3.2
9/18/2003 1:30	18.99	0.383	0.339	-1.2
9/18/2003 2:00	18.99	0.383	0.339	-3.8
9/18/2003 2:30	18.99	0.383	0.339	-4
9/18/2003 3:00	18.99	0.383	0.339	-1.9
9/18/2003 3:30	18.99	0.383	0.339	-2.2
9/18/2003 4:00	18.99	0.383	0.339	-2.2
9/18/2003 4:30	18.99	0.382	0.338	-1.4
9/18/2003 5:00	18.99	0.383	0.339	-1.9
9/18/2003 5:30	18.99	0.383	0.339	-2.9
9/18/2003 6:00	18.99	0.383	0.339	-1.8
9/18/2003 6:30	18.99	0.383	0.339	-2.1
9/18/2003 7:00	18.99	0.383	0.339	-1.7
9/18/2003 7:30	18.99	0.383	0.339	-1.8
9/18/2003 8:00	18.99	0.383	0.339	-2.8
9/18/2003 8:30	18.99	0.382	0.339	-2.5
9/18/2003 9:00	18.99	0.383	0.339	-2
9/18/2003 9:30	18.99	0.383	0.339	-2.8
9/18/2003 10:00	18.99	0.383	0.339	-2.2
9/18/2003 10:30	18.99	0.383	0.339	-1.7
9/18/2003 11:00	18.99	0.383	0.339	-2
9/18/2003 11:30	18.99	0.383	0.339	-1.3
9/18/2003 12:00	18.99	0.383	0.339	-1.9
9/18/2003 12:30	18.99	0.383	0.339	-2.7

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/18/2003 13:00	18.99	0.383	0.339	-2.4
9/18/2003 13:30	18.99	0.383	0.339	-1.9
9/18/2003 14:00	18.99	0.383	0.339	-2.1
9/18/2003 14:30	18.99	0.383	0.339	-1.3
9/18/2003 15:00	18.99	0.383	0.339	-1.6
9/18/2003 15:30	18.99	0.382	0.339	-3.1
9/18/2003 16:00	18.99	0.383	0.339	-1.7
9/18/2003 16:30	18.99	0.383	0.339	-1.6
9/18/2003 17:00	18.99	0.382	0.339	-2
9/18/2003 17:30	18.99	0.382	0.338	-2
9/18/2003 18:00	18.99	0.383	0.339	-2.7
9/18/2003 18:30	18.99	0.383	0.339	-2.1
9/18/2003 19:00	18.99	0.383	0.339	-2.4
9/18/2003 19:30	18.99	0.383	0.339	-2.9
9/18/2003 20:00	18.99	0.383	0.339	-1.8
9/18/2003 20:30	18.99	0.383	0.339	-2.1
9/18/2003 21:00	18.99	0.383	0.339	-1.6
9/18/2003 21:30	18.99	0.382	0.339	-2.4
9/18/2003 22:00	18.99	0.383	0.339	-2.2
9/18/2003 22:30	18.99	0.382	0.339	-3.7
9/18/2003 23:00	18.99	0.383	0.339	-2.3
9/18/2003 23:30	18.99	0.383	0.339	-2
9/19/2003 0:00	18.99	0.383	0.339	-2.1
9/19/2003 0:30	18.99	0.383	0.339	-3.2
9/19/2003 1:00	18.99	0.383	0.339	-2.9
9/19/2003 1:30	18.99	0.383	0.339	-0.6
9/19/2003 2:00	18.99	0.383	0.339	-2
9/19/2003 2:30	18.99	0.383	0.339	-2
9/19/2003 3:00	18.99	0.383	0.339	-1.3
9/19/2003 3:30	18.99	0.383	0.339	-1.8
9/19/2003 4:00	18.99	0.383	0.339	-1.7
9/19/2003 4:30	18.99	0.382	0.339	-1.9
9/19/2003 5:00	18.99	0.382	0.338	-2.3
9/19/2003 5:30	18.99	0.383	0.339	-2.1
9/19/2003 6:00	18.99	0.383	0.339	-1.5
9/19/2003 6:30	18.99	0.382	0.338	-1.9
9/19/2003 7:00	18.99	0.383	0.339	-2
9/19/2003 8:00	18.99	0.383	0.339	-1.9
9/19/2003 8:30	18.99	0.382	0.338	-2
9/19/2003 9:00	18.99	0.383	0.339	-2.8
9/19/2003 9:30	18.99	0.383	0.339	-3
9/19/2003 10:00	18.99	0.383	0.339	-2.2
9/19/2003 10:30	18.99	0.383	0.339	-2.1
9/19/2003 11:00	18.99	0.383	0.339	-2.5
9/19/2003 11:30	18.99	0.383	0.339	-1.9
9/19/2003 12:00	18.99	0.383	0.339	-1.6
9/19/2003 12:30	18.99	0.383	0.339	-2.5
9/19/2003 13:00	18.99	0.383	0.339	-2.9
9/19/2003 13:30	18.99	0.383	0.339	-1.5
9/19/2003 14:00	18.99	0.383	0.339	-1.5
9/19/2003 14:30	18.99	0.382	0.339	-2.4
9/19/2003 15:00	18.99	0.383	0.339	-2.4

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/19/2003 15:30	18.99	0.382	0.338	-1.5
9/19/2003 16:00	18.99	0.383	0.339	-2.6
9/19/2003 16:30	18.99	0.383	0.339	-1.7
9/19/2003 17:00	18.99	0.383	0.339	-2.5
9/19/2003 17:30	18.99	0.383	0.339	-2.9
9/19/2003 18:00	18.99	0.383	0.339	-2.1
9/19/2003 18:30	18.99	0.383	0.339	-1.8
9/19/2003 19:00	18.99	0.383	0.339	-2.7
9/19/2003 19:30	18.99	0.383	0.339	-2.1
9/19/2003 20:00	18.99	0.382	0.338	-1.4
9/19/2003 20:30	18.99	0.383	0.339	-2.5
9/22/2003 10:00	18.99	0.383	0.339	-3
9/22/2003 10:30	18.99	0.383	0.339	-2.1
9/22/2003 11:00	18.99	0.383	0.339	-2.3
9/22/2003 11:30	18.99	0.383	0.339	-4.1
9/22/2003 12:00	18.99	0.383	0.339	-2.2
9/22/2003 12:30	18.99	0.383	0.339	-2.2
9/22/2003 13:00	18.99	0.383	0.339	-3.1
9/22/2003 13:30	18.99	0.383	0.339	-1.4
9/22/2003 14:00	18.99	0.383	0.339	-2.8
9/22/2003 14:30	18.99	0.383	0.339	-1.6
9/22/2003 15:00	18.99	0.383	0.339	-2.7
9/22/2003 15:30	18.99	0.383	0.339	-2.3
9/22/2003 16:00	18.99	0.383	0.339	-2.3
9/22/2003 16:30	18.99	0.383	0.339	-0.9
9/22/2003 17:00	18.99	0.383	0.339	-0.5
9/22/2003 17:30	18.99	0.383	0.339	-2.8
9/22/2003 18:00	18.99	0.383	0.339	-2.9
9/22/2003 18:30	18.99	0.382	0.339	-2.1
9/22/2003 19:00	18.99	0.383	0.339	-3.2
9/22/2003 19:30	18.99	0.383	0.339	-2.3
9/22/2003 20:00	18.99	0.383	0.339	-2.3
9/22/2003 20:30	18.99	0.383	0.339	-1.6
9/22/2003 21:00	18.99	0.383	0.339	-1.5
9/22/2003 21:30	18.99	0.383	0.339	-1.9
9/22/2003 22:00	18.99	0.383	0.339	-2.3
9/22/2003 22:30	18.99	0.383	0.339	-2.9
9/22/2003 23:00	18.99	0.383	0.339	-1.4
9/22/2003 23:30	18.99	0.383	0.339	-1.7
9/23/2003 0:00	18.99	0.383	0.339	-2.1
9/23/2003 0:30	18.99	0.383	0.339	-3.1
9/23/2003 1:00	18.99	0.383	0.339	-2.4
9/23/2003 1:30	18.99	0.383	0.339	-2.7
9/23/2003 2:00	18.99	0.383	0.339	-1.8
9/23/2003 2:30	18.99	0.383	0.339	-3.7
9/23/2003 3:00	18.99	0.383	0.339	-1.8
9/23/2003 3:30	18.99	0.383	0.339	-1.9
9/23/2003 4:00	18.99	0.383	0.339	-0.5
9/23/2003 4:30	18.99	0.383	0.339	-2.8
9/23/2003 5:00	18.99	0.382	0.338	-0.5
9/23/2003 5:30	18.99	0.383	0.339	-3.4
9/23/2003 6:00	18.99	0.383	0.339	-2.4

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/23/2003 6:30	18.99	0.383	0.339	-1.2
9/23/2003 7:00	18.99	0.383	0.339	-1.9
9/23/2003 7:30	18.99	0.382	0.339	-2.4
9/23/2003 8:00	18.99	0.383	0.339	-1.7
9/23/2003 8:30	18.99	0.382	0.338	-1.1
9/23/2003 9:00	18.99	0.383	0.339	-1.2
9/23/2003 9:30	18.99	0.383	0.339	-2.3
9/23/2003 10:00	18.99	0.383	0.339	-3
9/23/2003 10:30	18.99	0.383	0.339	-2.7
9/23/2003 11:00	18.99	0.383	0.339	-2.2
9/23/2003 11:30	18.99	0.383	0.339	-2.5
9/23/2003 12:00	18.99	0.383	0.339	-1.4
9/23/2003 12:30	18.99	0.382	0.339	-1.3
9/23/2003 13:00	18.99	0.383	0.339	-2.5
9/23/2003 13:30	18.99	0.383	0.339	-1.6
9/23/2003 14:00	18.99	0.383	0.339	-2.5
9/23/2003 14:30	18.99	0.383	0.339	-1.8
9/23/2003 15:00	18.99	0.383	0.339	-3.2
9/23/2003 15:30	18.99	0.383	0.339	-2.4
9/23/2003 16:00	18.99	0.383	0.339	-2.4
9/23/2003 16:30	18.99	0.383	0.339	-2.9
9/23/2003 17:00	18.99	0.383	0.339	-2.4
9/23/2003 17:30	18.99	0.383	0.339	-2.7
9/23/2003 18:00	18.99	0.383	0.339	-1.5
9/23/2003 18:30	18.99	0.383	0.339	-1.5
9/23/2003 19:00	18.99	0.383	0.339	-1.6
9/23/2003 19:30	18.99	0.383	0.339	-1.6
9/23/2003 20:00	18.99	0.383	0.339	-1.7
9/23/2003 20:30	18.99	0.383	0.339	-2.6
9/23/2003 21:00	18.99	0.382	0.338	-1.8
9/23/2003 21:30	18.99	0.383	0.339	-1.3
9/23/2003 22:00	18.99	0.383	0.339	-2
9/23/2003 22:30	18.99	0.382	0.339	-2
9/23/2003 23:00	18.99	0.383	0.339	-3.1
9/23/2003 23:30	18.99	0.383	0.339	-2.7
9/24/2003 0:00	18.99	0.383	0.339	-3
9/24/2003 0:30	18.99	0.383	0.339	-1.3
9/24/2003 1:00	18.99	0.383	0.339	-2.4
9/24/2003 1:30	18.99	0.383	0.339	-1.8
9/24/2003 2:00	18.99	0.383	0.339	-2.5
9/24/2003 2:30	18.99	0.383	0.339	-1.2
9/24/2003 3:00	18.99	0.383	0.339	-1.7
9/24/2003 3:30	18.99	0.383	0.339	-2.6
9/24/2003 4:00	18.99	0.383	0.339	-1.4
9/24/2003 4:30	18.99	0.383	0.339	-3.1
9/24/2003 5:00	18.99	0.383	0.339	-2.1
9/24/2003 5:30	18.99	0.383	0.339	-3.2
9/24/2003 6:00	18.99	0.383	0.339	-2
9/24/2003 6:30	18.99	0.383	0.339	-3.1
9/24/2003 7:00	18.99	0.383	0.339	-1.2
9/24/2003 7:30	18.99	0.384	0.34	-1
9/24/2003 8:00	18.99	0.383	0.339	-3.1

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/24/2003 8:30	18.99	0.383	0.339	-3.1
9/24/2003 9:00	18.99	0.383	0.339	-2.8
9/24/2003 9:30	18.99	0.383	0.339	-2.5
9/24/2003 10:00	18.99	0.383	0.339	-1.8
9/24/2003 10:30	18.99	0.383	0.339	-1.7
9/24/2003 11:00	18.99	0.383	0.339	-2.1
9/24/2003 11:30	18.99	0.383	0.339	-2.3
9/24/2003 12:00	18.99	0.383	0.339	-2.2
9/24/2003 12:30	18.99	0.383	0.339	-1.7
9/24/2003 13:00	18.99	0.383	0.339	-2.1
9/24/2003 13:30	18.99	0.383	0.339	-2.6
9/24/2003 14:00	18.99	0.383	0.339	-2
9/24/2003 14:30	18.99	0.383	0.339	-1.9
9/24/2003 15:00	18.99	0.383	0.339	-1.8
9/24/2003 15:30	18.99	0.383	0.339	-2.4
9/24/2003 16:00	18.99	0.383	0.339	-2.2
9/24/2003 16:30	18.99	0.382	0.339	-2.4
9/24/2003 17:00	18.99	0.383	0.339	-2.8
9/24/2003 17:30	18.99	0.383	0.339	-2.1
9/24/2003 18:00	18.99	0.383	0.339	-2
9/24/2003 18:30	18.99	0.383	0.339	-1.7
9/24/2003 19:00	18.99	0.383	0.339	-1.6
9/24/2003 19:30	18.99	0.383	0.339	-2.2
9/24/2003 20:00	18.99	0.383	0.339	-1.7
9/24/2003 20:30	18.99	0.383	0.339	-2.5
9/24/2003 21:00	18.99	0.383	0.339	-1.8
9/24/2003 21:30	18.99	0.383	0.339	-3.7
9/24/2003 22:00	18.99	0.383	0.339	-3
9/24/2003 22:30	18.99	0.383	0.339	-1.9
9/24/2003 23:00	18.99	0.383	0.339	-1.3
9/24/2003 23:30	18.99	0.383	0.339	-1.4
9/25/2003 0:00	18.99	0.383	0.339	-2.7
9/25/2003 0:30	18.99	0.383	0.339	-2.3
9/25/2003 1:00	18.99	0.383	0.339	-2.3
9/25/2003 1:30	18.99	0.383	0.339	-2.2
9/25/2003 2:00	18.99	0.382	0.339	-0.5
9/25/2003 2:30	18.99	0.382	0.338	-2
9/25/2003 3:00	18.99	0.383	0.339	-3
9/25/2003 3:30	18.99	0.383	0.339	-2.9
9/25/2003 4:00	18.99	0.383	0.339	-3.6
9/25/2003 4:30	18.99	0.383	0.339	-2.8
9/25/2003 5:00	18.99	0.383	0.339	-1.9
9/25/2003 5:30	18.99	0.383	0.339	-2.5
9/25/2003 6:00	18.99	0.383	0.339	-2.2
9/25/2003 6:30	18.99	0.383	0.339	-1.6
9/25/2003 7:00	18.99	0.383	0.339	-3
9/25/2003 7:30	18.99	0.383	0.339	-2.4
9/25/2003 8:00	18.99	0.383	0.339	-0.9
9/25/2003 8:30	18.99	0.383	0.339	-2.5
9/25/2003 9:00	18.99	0.383	0.339	-2.9
9/25/2003 9:30	18.99	0.383	0.339	-1.9
9/25/2003 10:00	18.99	0.383	0.339	-2.1

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/25/2003 10:30	18.99	0.383	0.339	-2.7
9/25/2003 11:00	18.99	0.383	0.339	-3.3
9/25/2003 11:30	18.99	0.383	0.339	-2.9
9/25/2003 12:00	18.99	0.383	0.339	-2.4
9/25/2003 12:30	18.99	0.383	0.339	-2.6
9/25/2003 13:00	18.99	0.383	0.339	-2.2
9/25/2003 13:30	18.99	0.383	0.339	-2.6
9/25/2003 14:00	18.99	0.383	0.339	-2
9/25/2003 14:30	18.99	0.383	0.339	-1.1
9/25/2003 15:00	18.99	0.383	0.339	-3.2
9/25/2003 15:30	18.99	0.383	0.339	-2.1
9/25/2003 16:00	18.99	0.383	0.339	-2
9/25/2003 16:30	18.99	0.383	0.339	-2.5
9/25/2003 17:00	18.99	0.383	0.339	-2.6
9/25/2003 17:30	18.99	0.383	0.339	-2.1
9/25/2003 18:00	18.99	0.383	0.339	-0.9
9/25/2003 18:30	18.99	0.383	0.339	-1.8
9/25/2003 19:00	18.99	0.383	0.339	-1.8
9/25/2003 19:30	18.99	0.383	0.339	-2.1
9/25/2003 20:00	18.99	0.383	0.339	-2.5
9/25/2003 20:30	18.99	0.382	0.339	-2.3
9/25/2003 21:00	18.99	0.382	0.338	-2.2
9/25/2003 21:30	18.99	0.383	0.339	-2.4
9/25/2003 22:00	18.99	0.383	0.339	-2
9/25/2003 22:30	18.99	0.383	0.339	-1
9/25/2003 23:00	18.99	0.383	0.339	-1.4
9/25/2003 23:30	18.99	0.382	0.339	-2
9/26/2003 0:00	18.99	0.383	0.339	-2.3
9/26/2003 0:30	18.99	0.383	0.339	-2
9/26/2003 1:00	18.99	0.383	0.339	-1.9
9/26/2003 1:30	18.99	0.383	0.339	-1.9
9/26/2003 2:00	18.99	0.383	0.339	-1.9
9/26/2003 2:30	18.99	0.383	0.339	-2.4
9/26/2003 3:00	18.99	0.383	0.339	-1.6
9/26/2003 3:30	18.99	0.383	0.339	-3.1
9/26/2003 4:00	18.99	0.383	0.339	-2.1
9/26/2003 4:30	18.99	0.383	0.339	-2.7
9/26/2003 5:00	18.99	0.383	0.339	-2.9
9/26/2003 5:30	18.99	0.383	0.339	-1.5
9/26/2003 6:00	18.99	0.383	0.339	-2.5
9/26/2003 6:30	18.99	0.383	0.339	-2.3
9/26/2003 7:00	18.99	0.383	0.339	-1.5
9/26/2003 7:30	18.99	0.383	0.339	-1.5
9/26/2003 8:00	18.99	0.383	0.339	-2.1
9/26/2003 8:30	18.99	0.383	0.339	-1.9
9/26/2003 9:00	18.99	0.383	0.339	-2.1
9/26/2003 9:30	18.99	0.383	0.339	-1.6
9/26/2003 10:00	18.99	0.383	0.339	-2.4
9/26/2003 10:30	18.99	0.383	0.339	-2.4
9/26/2003 11:00	18.99	0.383	0.339	-3.2
9/26/2003 11:30	18.99	0.383	0.339	-2.6
9/26/2003 12:00	18.99	0.383	0.339	-2.9

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/26/2003 12:30	18.99	0.383	0.339	-3.2
9/26/2003 13:00	18.99	0.383	0.339	-1.3
9/26/2003 13:30	18.99	0.383	0.339	-2.4
9/26/2003 14:00	18.99	0.383	0.339	-1.5
9/26/2003 14:30	18.99	0.383	0.339	-2.7
9/26/2003 15:00	18.99	0.383	0.339	-2.5
9/26/2003 15:30	18.99	0.382	0.339	-1.8
9/26/2003 16:00	18.99	0.383	0.339	-2.4
9/26/2003 16:30	18.99	0.383	0.339	-2.8
9/26/2003 17:00	18.99	0.383	0.339	-2
9/26/2003 17:30	18.99	0.383	0.339	-1.9
9/26/2003 18:00	18.99	0.383	0.339	-2.1
9/26/2003 18:30	18.99	0.383	0.339	-2.7
9/26/2003 19:00	18.99	0.382	0.339	-2.1
9/26/2003 19:30	18.99	0.382	0.339	-2.4
9/26/2003 20:00	18.99	0.383	0.339	-0.6
9/26/2003 20:30	18.99	0.383	0.339	-3.1
9/26/2003 21:00	18.99	0.382	0.338	-2.2
9/26/2003 21:30	18.99	0.383	0.339	-2.7
9/26/2003 22:00	18.99	0.383	0.339	-0.9
9/26/2003 22:30	18.99	0.383	0.339	-2.8
9/26/2003 23:00	18.99	0.383	0.339	-1.6
9/26/2003 23:30	18.99	0.383	0.339	-3.1
9/27/2003 0:00	18.99	0.383	0.339	-2.1
9/27/2003 0:30	18.99	0.383	0.339	-1.8
9/27/2003 1:00	18.99	0.383	0.339	-2.8
9/27/2003 1:30	18.99	0.383	0.339	-2.1
9/27/2003 2:00	18.99	0.383	0.339	-1.8
9/27/2003 2:30	18.99	0.383	0.339	-3
9/27/2003 3:00	18.99	0.383	0.339	-0.7
9/27/2003 3:30	18.99	0.383	0.339	-2.6
9/27/2003 4:00	18.99	0.383	0.339	-2
9/27/2003 4:30	18.99	0.383	0.339	-1.9
9/27/2003 5:00	18.99	0.383	0.339	-2
9/27/2003 5:30	18.99	0.383	0.339	-2.3
9/27/2003 6:00	18.99	0.383	0.339	-2
9/27/2003 6:30	18.99	0.383	0.339	-2
9/27/2003 7:00	18.99	0.382	0.339	-1.4
9/27/2003 7:30	18.99	0.383	0.339	-2.3
9/27/2003 8:00	18.99	0.382	0.338	-1.7
9/27/2003 8:30	18.99	0.383	0.339	-2.5
9/27/2003 9:00	18.99	0.383	0.339	-2.4
9/27/2003 9:30	18.99	0.383	0.339	-2.3
9/27/2003 10:00	18.99	0.383	0.339	-1.6
9/27/2003 10:30	18.99	0.383	0.339	-1.6
9/27/2003 11:00	18.99	0.383	0.339	-2.7
9/27/2003 11:30	18.99	0.383	0.339	-2.1
9/27/2003 12:00	18.99	0.383	0.339	-0.9
9/27/2003 12:30	18.99	0.383	0.339	-2.6
9/27/2003 13:00	18.99	0.383	0.339	-2.4
9/27/2003 13:30	18.99	0.383	0.339	-2.1
9/27/2003 14:00	18.99	0.383	0.339	-0.9

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/27/2003 14:30	18.99	0.383	0.339	-2.1
9/27/2003 15:00	18.99	0.382	0.338	-1.9
9/27/2003 15:30	18.99	0.383	0.339	-2.3
9/27/2003 16:00	18.99	0.383	0.339	-3.5
9/27/2003 16:30	18.99	0.383	0.339	-2.3
9/27/2003 17:00	18.99	0.383	0.339	-2.2
9/27/2003 17:30	18.99	0.382	0.339	-3
9/27/2003 18:00	18.99	0.383	0.339	-1.7
9/27/2003 18:30	18.99	0.382	0.339	-1.8
9/27/2003 19:00	18.99	0.383	0.339	-1.8
9/27/2003 19:30	18.99	0.383	0.339	-1.2
9/27/2003 20:00	18.99	0.382	0.339	-2.3
9/27/2003 20:30	18.99	0.383	0.339	-2.5
9/27/2003 21:00	18.99	0.383	0.339	-1
9/27/2003 21:30	18.99	0.383	0.339	-2.6
9/27/2003 22:00	18.99	0.383	0.339	-2.1
9/27/2003 22:30	18.99	0.383	0.339	-1.8
9/27/2003 23:00	18.99	0.383	0.339	-0.9
9/27/2003 23:30	18.99	0.383	0.339	-2.4
9/28/2003 0:00	18.99	0.382	0.338	-2.5
9/28/2003 0:30	18.99	0.383	0.339	-1.2
9/28/2003 1:00	18.99	0.383	0.339	-1.1
9/28/2003 1:30	18.99	0.383	0.339	-2.1
9/28/2003 2:00	18.99	0.383	0.339	-2.2
9/28/2003 2:30	18.99	0.383	0.339	-1.7
9/28/2003 3:00	18.99	0.382	0.338	-3.2
9/28/2003 3:30	18.99	0.383	0.339	-1.7
9/28/2003 4:00	18.99	0.383	0.339	-2.9
9/28/2003 4:30	18.99	0.383	0.339	-2.7
9/28/2003 5:00	18.99	0.382	0.338	-3.4
9/28/2003 5:30	18.99	0.382	0.339	-2.1
9/28/2003 6:00	18.99	0.382	0.338	-4.1
9/28/2003 6:30	18.99	0.383	0.339	-2.3
9/28/2003 7:00	18.99	0.383	0.339	-2.4
9/28/2003 8:00	18.99	0.383	0.339	-2.6
9/28/2003 8:30	18.99	0.383	0.339	-2.3
9/28/2003 9:00	18.99	0.383	0.339	-3.2
9/28/2003 9:30	18.99	0.382	0.338	-2
9/28/2003 10:00	18.99	0.383	0.339	-3.1
9/28/2003 10:30	18.99	0.383	0.339	-2.1
9/28/2003 11:00	18.99	0.383	0.339	-1.9
9/28/2003 11:30	18.99	0.383	0.339	-0.8
9/28/2003 12:00	18.99	0.382	0.338	-2.2
9/28/2003 12:30	18.99	0.382	0.339	-0.8
9/28/2003 13:00	18.99	0.383	0.339	-1.6
9/28/2003 13:30	18.99	0.382	0.338	-2.5
9/28/2003 14:00	18.99	0.383	0.339	-2.1
9/28/2003 14:30	18.99	0.383	0.339	-2.1
9/28/2003 15:00	18.99	0.382	0.339	-3
9/28/2003 15:30	18.99	0.382	0.338	-1.8
9/28/2003 16:00	18.99	0.383	0.339	-2.1
9/28/2003 16:30	18.99	0.382	0.339	-2

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/28/2003 17:00	18.99	0.383	0.339	-2.8
9/28/2003 17:30	18.99	0.383	0.339	-1.5
9/28/2003 18:30	18.99	0.383	0.339	-2.5
9/29/2003 13:00	18.99	0.383	0.339	-0.9
9/29/2003 13:30	18.99	0.383	0.339	-2
9/29/2003 14:00	18.99	0.382	0.338	-3.9
9/29/2003 14:30	18.99	0.383	0.339	-2.4
9/29/2003 15:00	18.99	0.382	0.338	-2.4
9/29/2003 15:30	18.99	0.383	0.339	-2.2
9/29/2003 16:00	18.99	0.383	0.339	-2.5
9/29/2003 16:30	18.99	0.383	0.339	-2.9
9/29/2003 17:00	18.99	0.383	0.339	-2.4
9/29/2003 17:30	18.99	0.383	0.339	-2.9
9/29/2003 18:00	18.99	0.383	0.339	-1.8
9/29/2003 18:30	18.99	0.382	0.338	-1.6
9/29/2003 19:00	18.99	0.382	0.339	-2.4
9/29/2003 19:30	18.99	0.383	0.339	-1.6
9/29/2003 20:00	18.99	0.382	0.339	-2.7
9/29/2003 20:30	18.99	0.383	0.339	-1.2
9/29/2003 21:00	18.99	0.383	0.339	-1.6
9/29/2003 21:30	18.99	0.383	0.339	-1.7
9/29/2003 22:00	18.99	0.383	0.339	-1.7
9/29/2003 22:30	18.99	0.383	0.339	-1.2
9/29/2003 23:00	18.99	0.383	0.339	-2.5
9/29/2003 23:30	18.99	0.383	0.339	-2.2
9/30/2003 0:00	18.99	0.383	0.339	-2.5
9/30/2003 0:30	18.99	0.383	0.339	-2.3
9/30/2003 1:00	18.99	0.383	0.339	-1.1
9/30/2003 1:30	18.99	0.383	0.339	-1.4
9/30/2003 2:00	18.99	0.383	0.339	-1.6
9/30/2003 2:30	18.99	0.383	0.339	-2.8
9/30/2003 3:00	18.99	0.382	0.338	-2.8
9/30/2003 3:30	18.99	0.383	0.339	-1.4
9/30/2003 4:00	18.99	0.383	0.339	-3.2
9/30/2003 4:30	18.99	0.383	0.339	-2.7
9/30/2003 5:00	18.99	0.383	0.339	-2.3
9/30/2003 5:30	18.99	0.383	0.339	-2.6
9/30/2003 6:00	18.99	0.383	0.339	-1.5
9/30/2003 6:30	18.99	0.383	0.339	-2.9
9/30/2003 7:00	18.99	0.383	0.339	-2.3
9/30/2003 7:30	18.99	0.383	0.339	-2.8
9/30/2003 8:00	18.99	0.383	0.339	-2.1
9/30/2003 8:30	18.99	0.382	0.338	-2.1
9/30/2003 9:00	18.99	0.383	0.339	-2.4
9/30/2003 9:30	18.99	0.383	0.339	-2.6
9/30/2003 10:00	18.99	0.383	0.339	-2.1
9/30/2003 10:30	18.99	0.382	0.338	-1.6
9/30/2003 11:00	18.99	0.383	0.339	-1.7
9/30/2003 11:30	18.99	0.383	0.339	-1.4
9/30/2003 12:00	18.99	0.383	0.339	-1.8
9/30/2003 12:30	18.99	0.383	0.339	-1.7
9/30/2003 13:00	18.99	0.383	0.339	-2.3

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
9/30/2003 13:30	18.99	0.383	0.339	-2.5
9/30/2003 14:00	18.99	0.383	0.339	-1
9/30/2003 14:30	18.99	0.383	0.339	-2.4
9/30/2003 15:00	18.99	0.382	0.338	-1.4
9/30/2003 15:30	18.99	0.383	0.339	-2.5
9/30/2003 16:00	18.99	0.383	0.339	-1.9
9/30/2003 16:30	18.99	0.383	0.339	-1.9
9/30/2003 17:00	18.99	0.383	0.339	-1.5
9/30/2003 17:30	18.99	0.383	0.339	-2.3
9/30/2003 18:00	18.99	0.383	0.339	-2.3
9/30/2003 18:30	18.99	0.383	0.339	-3.1
9/30/2003 19:00	18.99	0.383	0.339	-1.8
9/30/2003 19:30	18.99	0.383	0.339	-1
9/30/2003 20:00	18.99	0.383	0.339	-2.5
9/30/2003 20:30	18.99	0.382	0.338	-1.1
9/30/2003 21:00	18.99	0.383	0.339	-2.3
9/30/2003 21:30	18.99	0.383	0.339	-2.1
9/30/2003 22:00	18.99	0.383	0.339	-3.1
9/30/2003 22:30	18.99	0.383	0.339	-2.3
9/30/2003 23:00	18.99	0.383	0.339	-2.2
9/30/2003 23:30	18.99	0.382	0.338	-3.4
10/1/2003 0:00	18.99	0.382	0.338	-2
10/1/2003 0:30	18.99	0.383	0.339	-3
10/1/2003 1:00	18.99	0.383	0.339	-2
10/1/2003 1:30	18.99	0.383	0.339	-1.3
10/1/2003 2:00	18.99	0.383	0.339	-2.3
10/1/2003 2:30	18.99	0.383	0.339	-2.3
10/1/2003 3:00	18.99	0.383	0.339	-2.6
10/1/2003 3:30	18.99	0.383	0.339	-3.3
10/1/2003 4:00	18.99	0.383	0.339	-3.4
10/1/2003 4:30	18.99	0.383	0.339	-3.1
10/1/2003 5:00	18.99	0.382	0.338	-3.5
10/1/2003 5:30	18.99	0.383	0.339	-1.7
10/1/2003 6:00	18.99	0.383	0.339	-1.5
10/1/2003 6:30	18.99	0.383	0.339	-2
10/1/2003 7:00	18.99	0.383	0.339	-1.7
10/1/2003 7:30	18.99	0.383	0.339	-2.7
10/1/2003 8:00	18.99	0.383	0.339	-3.2
10/1/2003 8:30	18.99	0.383	0.339	-2.4
10/1/2003 9:00	18.99	0.383	0.339	-1.9
10/1/2003 9:30	18.99	0.383	0.339	-2.2
10/1/2003 10:00	18.99	0.383	0.339	-2.3
10/1/2003 10:30	18.99	0.383	0.339	-1.6
10/1/2003 11:00	18.99	0.383	0.339	-1.4
10/1/2003 11:30	18.99	0.383	0.339	-2.3
10/1/2003 12:00	18.99	0.383	0.339	-0.8
10/1/2003 12:30	18.99	0.383	0.339	-2.8
10/1/2003 13:00	18.99	0.383	0.339	-3.3
10/1/2003 13:30	18.99	0.383	0.339	-2.9
10/1/2003 14:00	18.99	0.383	0.339	-1.6
10/1/2003 14:30	18.99	0.383	0.339	-1.7
10/1/2003 15:00	18.99	0.382	0.338	-1.9

Table G-4. Recording Fluorometer Results

Date and Time	Temperatur in deg. C	Specific Conductance in mS/cm	Conductivity in mS/cm	Rhodamine in ug/l
10/1/2003 15:30	18.99	0.383	0.339	-0.6
10/1/2003 16:00	18.99	0.382	0.338	-2.2
10/1/2003 16:30	18.99	0.383	0.339	-2.2
10/1/2003 17:00	18.99	0.383	0.339	-2.7
10/1/2003 17:30	18.99	0.383	0.339	-2
10/1/2003 18:00	18.99	0.382	0.339	-1.6
10/1/2003 18:30	18.99	0.382	0.338	-1.9
10/1/2003 19:00	18.99	0.383	0.339	-2.3
10/1/2003 19:30	18.99	0.383	0.339	-1.7
10/1/2003 20:00	18.99	0.383	0.339	-2.5
10/1/2003 20:30	18.99	0.382	0.338	-1.9
10/1/2003 21:00	18.99	0.383	0.339	-2.7
10/1/2003 21:30	18.99	0.383	0.339	-2
10/1/2003 22:00	18.99	0.383	0.339	-1.7
10/1/2003 22:30	18.99	0.383	0.339	-1.4
10/1/2003 23:00	18.99	0.383	0.339	-2.2
10/1/2003 23:30	18.99	0.383	0.339	-3
10/2/2003 0:00	18.99	0.383	0.339	-1.8
10/2/2003 0:30	18.99	0.383	0.339	-2.6
10/2/2003 1:00	18.99	0.383	0.339	-2.1
10/2/2003 1:30	18.99	0.383	0.339	-2.8
10/2/2003 2:00	18.99	0.382	0.339	-0.5
10/2/2003 2:30	18.99	0.382	0.338	-1.2
10/2/2003 3:00	18.99	0.383	0.339	-2.2
10/2/2003 3:30	18.99	0.383	0.339	-2.5
10/2/2003 4:00	18.99	0.383	0.339	-2.6
10/2/2003 4:30	18.99	0.383	0.339	-3.3
10/2/2003 5:00	18.99	0.383	0.339	-2.6
10/2/2003 5:30	18.99	0.383	0.339	-1.1
10/2/2003 6:00	18.99	0.383	0.339	-1.6
10/2/2003 6:30	18.99	0.382	0.339	-2
10/2/2003 7:00	18.99	0.382	0.338	-2
10/2/2003 7:30	18.99	0.383	0.339	-2.1
10/2/2003 8:00	18.99	0.382	0.339	-1.6
10/2/2003 8:30	18.99	0.383	0.339	-1.9
10/2/2003 9:00	18.99	0.383	0.339	-2.4
10/2/2003 9:30	18.99	0.383	0.339	-1.8
10/2/2003 10:00	18.99	0.383	0.339	-1.7
10/2/2003 10:30	18.99	0.383	0.339	-1.8
10/2/2003 11:00	18.99	0.383	0.339	-2.8

LABORATORY ANALYTICAL DATA

SAMPLE SUMMARY

A3G100190

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FR2FP	001	MW-5	07/08/03	
FR2FQ	002	MW-14	07/08/03	
FR2FT	003	MW-17	07/08/03	
FR2FW	004	MW-18	07/08/03	
FR2FX	005	MW-19	07/08/03	
FR2F0	006	MW-20	07/08/03	
FR2F1	007	MANSON BR.	07/08/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

T.K. LOUISVILLE/GA

Lot #: A3G100190

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

July 24, 2003

CASE NARRATIVE

A3G100190

The following report contains the analytical results for seven water samples submitted to STL North Canton by MACTEC Engineering & Consulting from the T.K. Louisville/GA Site. The samples were received on July 10, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn July 17, 2003. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at the laboratory at a temperature of 4.1° C.

METALS

The analytical results met the requirements of the laboratory's QA/QC program.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

ACCREDITED IN ACCORDANCE WITH nelac

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048),
Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001),
New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024),
Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003),
Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY,
USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3G100190

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-5 07/08/03 001				
Calcium	22.5	5.0	mg/L	SW846 6010B
Sodium	6.0	5.0	mg/L	SW846 6010B
Chloride	9.5	1.0	mg/L	MCAWW 300.0A
Total Alkalinity	43	5.0	mg/L	MCAWW 310.1
MW-14 07/08/03 002				
Calcium	71.8	5.0	mg/L	SW846 6010B
Chloride	7.5	1.0	mg/L	MCAWW 300.0A
Sulfate	15.8	1.0	mg/L	MCAWW 300.0A
Total Alkalinity	180	5.0	mg/L	MCAWW 310.1
MW-17 07/08/03 003				
Calcium	110	5.0	mg/L	SW846 6010B
Sodium	7.0	5.0	mg/L	SW846 6010B
Chloride	3.9	1.0	mg/L	MCAWW 300.0A
Sulfate	4.5	1.0	mg/L	MCAWW 300.0A
Total Alkalinity	270	5.0	mg/L	MCAWW 310.1
MW-18 07/08/03 004				
Calcium	102	5.0	mg/L	SW846 6010B
Sodium	5.1	5.0	mg/L	SW846 6010B
Chloride	2.9	1.0	mg/L	MCAWW 300.0A
Sulfate	4.1	1.0	mg/L	MCAWW 300.0A
Total Alkalinity	260	5.0	mg/L	MCAWW 310.1
MW-19 07/08/03 005				
Calcium	43.3	5.0	mg/L	SW846 6010B
Chloride	6.4	1.0	mg/L	MCAWW 300.0A
Total Alkalinity	100	5.0	mg/L	MCAWW 310.1
MW-20 07/08/03 006				
Calcium	93.8	5.0	mg/L	SW846 6010B
Chloride	3.4	1.0	mg/L	MCAWW 300.0A
Total Alkalinity	230	5.0	mg/L	MCAWW 310.1

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A3G100190

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MANSON BR. 07/08/03 007				
Calcium	7.5	5.0	mg/L	SW846 6010B
Chloride	3.6	1.0	mg/L	MCAWW 300.0A
Total Alkalinity	27	5.0	mg/L	MCAWW 310.1

ANALYTICAL METHODS SUMMARY

A3G100190

PARAMETER	ANALYTICAL METHOD
Alkalinity	MCAWW 310.1
Chloride	MCAWW 300.0A
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Sulfate	MCAWW 300.0A

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

TOTAL Metals

Lot-Sample #...: A3G100190-001 Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3192121						
Calcium	22.5	5.0	mg/L	SW846 6010B	07/11/03	FR2FP1AA
		Dilution Factor: 1				
Potassium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FP1AC
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FP1AD
		Dilution Factor: 1				
Sodium	6.0	5.0	mg/L	SW846 6010B	07/11/03	FR2FP1AE
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

General Chemistry

Lot-Sample #...: A3G100190-001 **Work Order #...:** FR2FP **Matrix.....:** WG
Date Sampled...: 07/08/03 **Date Received..:** 07/10/03

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride	**9.5**	**1.0**	**mg/L**	**MCAWW 300.0A**	**07/14/03**	**3196223**
		Dilution Factor: 1				
Sulfate	ND	1.0	mg/L	MCAWW 300.0A	07/14/03	3196222
		Dilution Factor: 1				
Total Alkalinity	**43**	**5.0**	**mg/L**	**MCAWW 310.1**	**07/11/03**	**3192432**
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14

TOTAL Metals

Lot-Sample #...: A3G100190-002 Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3192121						
Calcium	**71.8**	**5.0**	**mg/L**	**SW846 6010B**	**07/11/03**	**FR2FQ1AA**
		Dilution Factor: 1				
Potassium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FQ1AC
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FQ1AD
		Dilution Factor: 1				
Sodium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FQ1AE
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14

General Chemistry

Lot-Sample #...: A3G100190-002 Work Order #...: FR2FQ Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride	7.5	1.0	mg/L	MCAWW 300.0A	07/14/03	3196223
		Dilution Factor: 1				
Sulfate	15.8	1.0	mg/L	MCAWW 300.0A	07/14/03	3196222
		Dilution Factor: 1				
Total Alkalinity	180	5.0	mg/L	MCAWW 310.1	07/11/03	3192432
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17

TOTAL Metals

Lot-Sample #...: A3G100190-003 Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3192121						
Calcium	**110**	**5.0**	**mg/L**	**SW846 6010B**	**07/11/03**	**FR2FT1AA**
		Dilution Factor: 1				
Potassium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FT1AC
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FT1AD
		Dilution Factor: 1				
Sodium	**7.0**	**5.0**	**mg/L**	**SW846 6010B**	**07/11/03**	**FR2FT1AE**
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17

General Chemistry

Lot-Sample #...: A3G100190-003 Work Order #...: FR2FT Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride	3.9	1.0	mg/L	MCAWW 300.0A	07/16/03	3198196
		Dilution Factor: 1				
Sulfate	4.5	1.0	mg/L	MCAWW 300.0A	07/16/03	3198197
		Dilution Factor: 1				
Total Alkalinity	270	5.0	mg/L	MCAWW 310.1	07/11/03	3192432
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18

TOTAL Metals

Lot-Sample #...: A3G100190-004 Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3192121						
Calcium	**102**	**5.0**	**mg/L**	**SW846 6010B**	**07/11/03**	**FR2FW1AA**
		Dilution Factor: 1				
Potassium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FW1AC
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FW1AD
		Dilution Factor: 1				
Sodium	**5.1**	**5.0**	**mg/L**	**SW846 6010B**	**07/11/03**	**FR2FW1AE**
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18

General Chemistry

Lot-Sample #...: A3G100190-004 Work Order #...: FR2FW Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride	2.9	1.0	mg/L	MCAWW 300.0A	07/16/03	3198196
		Dilution Factor: 1				
Sulfate	4.1	1.0	mg/L	MCAWW 300.0A	07/16/03	3198197
		Dilution Factor: 1				
Total Alkalinity	260	5.0	mg/L	MCAWW 310.1	07/11/03	3192432
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

TOTAL Metals

Lot-Sample #...: A3G100190-005 Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3192121						
Calcium	**43.3**	**5.0**	**mg/L**	**SW846 6010B**	**07/11/03**	**FR2FX1AA**
		Dilution Factor: 1				
Potassium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FX1AC
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FX1AD
		Dilution Factor: 1				
Sodium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2FX1AE
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

General Chemistry

Lot-Sample #...: A3G100190-005 Work Order #...: FR2FX Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride	6.4	1.0	mg/L	MCAWW 300.0A	07/14/03	3196223
		Dilution Factor: 1				
Sulfate	ND	1.0	mg/L	MCAWW 300.0A	07/14/03	3196222
		Dilution Factor: 1				
Total Alkalinity	100	5.0	mg/L	MCAWW 310.1	07/11/03	3192432
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20

TOTAL Metals

Lot-Sample #...: A3G100190-006 Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3192121						
Calcium	**93.8**	**5.0**	**mg/L**	**SW846 6010B**	**07/11/03**	**FR2F01AA**
		Dilution Factor: 1				
Potassium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2F01AC
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2F01AD
		Dilution Factor: 1				
Sodium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2F01AE
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20

General Chemistry

Lot-Sample #...: A3G100190-006 Work Order #...: FR2F0 Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride	3.4	1.0	mg/L	MCAWW 300.0A	07/16/03	3198196
		Dilution Factor: 1				
Sulfate	ND	1.0	mg/L	MCAWW 300.0A	07/16/03	3198197
		Dilution Factor: 1				
Total Alkalinity	230	5.0	mg/L	MCAWW 310.1	07/11/03	3192432
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MANSON BR.

TOTAL Metals

Lot-Sample #...: A3G100190-007 Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3192121						
Calcium	**7.5**	**5.0**	**mg/L**	**SW846 6010B**	**07/11/03**	**FR2F11AA**
		Dilution Factor: 1				
Potassium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2F11AC
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2F11AD
		Dilution Factor: 1				
Sodium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR2F11AE
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MANSON BR.

General Chemistry

Lot-Sample #...: A3G100190-007 Work Order #...: FR2F1 Matrix.....: WG
Date Sampled...: 07/08/03 Date Received..: 07/10/03

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride	3.6	1.0	mg/L	MCAWW 300.0A	07/14/03	3196223
		Dilution Factor: 1				
Sulfate	ND	1.0	mg/L	MCAWW 300.0A	07/14/03	3196222
		Dilution Factor: 1				
Total Alkalinity	27	5.0	mg/L	MCAWW 310.1	07/11/03	3192432
		Dilution Factor: 1				

QUALITY CONTROL SECTION

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A3G100190 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A3G110000-121 **Prep Batch #...:** 3192121						
Calcium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR35V1AA
		Dilution Factor: 1				
Magnesium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR35V1AD
		Dilution Factor: 1				
Potassium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR35V1AC
		Dilution Factor: 1				
Sodium	ND	5.0	mg/L	SW846 6010B	07/11/03	FR35V1AE
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3G100190 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride		Work Order #: FR91M1AA		MB Lot-Sample #:	A3G150000-223	
	ND	1.0	mg/L	MCAWW 300.0A	07/14/03	3196223
		Dilution Factor: 1				
Chloride		Work Order #: FTF6Q1AA		MB Lot-Sample #:	A3G170000-196	
	ND	1.0	mg/L	MCAWW 300.0A	07/16/03	3198196
		Dilution Factor: 1				
Sulfate		Work Order #: FR91L1AA		MB Lot-Sample #:	A3G150000-222	
	ND	1.0	mg/L	MCAWW 300.0A	07/14/03	3196222
		Dilution Factor: 1				
Sulfate		Work Order #: FTF6R1AA		MB Lot-Sample #:	A3G170000-197	
	ND	1.0	mg/L	MCAWW 300.0A	07/16/03	3198197
		Dilution Factor: 1				
Total Alkalinity		Work Order #: FR5M41AA		MB Lot-Sample #:	A3G110000-432	
	ND	5.0	mg/L	MCAWW 310.1	07/10/03	3192432
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A3G100190 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A3G110000-121 **Prep Batch #...:** 3192121					
Calcium	104	(80 - 120)	SW846 6010B Dilution Factor: 1	07/11/03	FR35V1AF
Potassium	104	(80 - 120)	SW846 6010B Dilution Factor: 1	07/11/03	FR35V1AG
Magnesium	100	(80 - 120)	SW846 6010B Dilution Factor: 1	07/11/03	FR35V1AH
Sodium	100	(80 - 120)	SW846 6010B Dilution Factor: 1	07/11/03	FR35V1AJ

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: A3G100190 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride		WO#:FR91M1AC-LCS/FR91M1AD-LCSD LCS Lot-Sample#: A3G150000-223					
	98	(90 - 110)			MCAWW 300.0A	07/14/03	3196223
	99	(90 - 110)	1.6	(0-20)	MCAWW 300.0A	07/14/03	3196223
		Dilution Factor: 1					
Chloride		WO#:FTF6Q1AC-LCS/FTF6Q1AD-LCSD LCS Lot-Sample#: A3G170000-196					
	99	(90 - 110)			MCAWW 300.0A	07/16/03	3198196
	99	(90 - 110)	0.80	(0-20)	MCAWW 300.0A	07/16/03	3198196
		Dilution Factor: 1					
Sulfate		WO#:FTF6R1AC-LCS/FTF6R1AD-LCSD LCS Lot-Sample#: A3G170000-197					
	99	(90 - 110)			MCAWW 300.0A	07/16/03	3198197
	98	(90 - 110)	1.0	(0-20)	MCAWW 300.0A	07/16/03	3198197
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A3G100190 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sulfate		Work Order #: FR91L1AC	LCS Lot-Sample#: A3G150000-222		
	98	(90 - 110)	MCAWW 300.0A	07/14/03	3196222
		Dilution Factor: 1			
Total Alkalinity		Work Order #: FR5M41AC	LCS Lot-Sample#: A3G110000-432		
	100	(90 - 127)	MCAWW 310.1	07/10/03	3192432
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A3G100190 **Matrix.....:** WG
Date Sampled...: 07/08/03 **Date Received..:** 07/10/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A3G100190-001 **Prep Batch #...:** 3192121							
Calcium	103	(75 - 125)			SW846 6010B	07/11/03	FR2FP1AJ
	69 N,*	(75 - 125)	26	(0-20)	SW846 6010B	07/11/03	FR2FP1AK
		Dilution Factor: 1					
Magnesium	101	(75 - 125)			SW846 6010B	07/11/03	FR2FP1AN
	77 *	(75 - 125)	26	(0-20)	SW846 6010B	07/11/03	FR2FP1AP
		Dilution Factor: 1					
Potassium	105	(75 - 125)			SW846 6010B	07/11/03	FR2FP1AL
	82 *	(75 - 125)	24	(0-20)	SW846 6010B	07/11/03	FR2FP1AM
		Dilution Factor: 1					
Sodium	101	(75 - 125)			SW846 6010B	07/11/03	FR2FP1AQ
	75 *	(75 - 125)	27	(0-20)	SW846 6010B	07/11/03	FR2FP1AR
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: A3G100190 **Matrix.....:** WATER
Date Sampled...: 07/08/03 10:00 **Date Received..:** 07/09/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sulfate		WO#: FR0061CA-MS/FR0061CC-MSD				MS Lot-Sample #: A3G090261-001	
	105	(90 - 110)			MCAWW 300.0A	07/14/03	3196222
	105	(90 - 110)	0.02	(0-20)	MCAWW 300.0A	07/14/03	3196222
		Dilution Factor: 2					
Total Alkalinity		WO#: FR21A1A3-MS/FR21A1A4-MSD				MS Lot-Sample #: A3G100269-007	
	72	(10 - 160)			MCAWW 310.1	07/10/03	3192432
	59	(10 - 160)	8.7	(0-24)	MCAWW 310.1	07/10/03	3192432
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

30

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MacTec, Inc.	Rhonda Quinn	7/9/03	162202
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr. Suite 100	(770) 421-3400 / 421-3486		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bob Seymour	Roger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
T.K. Louisville / GA	Fed Ex: 836397950058		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Metals (6010)	Alk, Cl, Sulfate	Special Instructions/ Conditions of Receipt
MW-5	7/8/03			X			1		1				1	1	For questions
MW-14	7/8			X			1		1				1	1	call Rhonda Quinn
MW-17	7/8			X			1		1				1	1	at (770) 421-3400
MW-18	7/8			X			1		1				1	1	
MW-19	7/8			X			1		1				1	1	Metals: Ca, Mg,
MW-20	7/8			X			1		1				1	1	Na, K by 6010
Manson Br.	7/8			X			1		1				1	1	Alkalinity by
															310.1, Chloride
															by 300.0,
															Sulfate by 300.0

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☒ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: R. A. Lyman To: Fed Ex	Date: 7/9/03	Time: 14:00	1. Received By:	Date: 7-10-03	Time: 0950
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

APPENDIX H

CSR LABORATORY ANALYTICAL RESULTS – PHYSICAL TESTING

LAWGIBB GROUP

January 25,2001

Law Engineering & Environmental Services,Inc.
3200 Town Point Drive Suite 100
Kennesaw, Ga. 30144

Attention: Ms. Rhonda Quinn

Subject: **Transmittal of Test Results: ThemoKing**
Geotechnical Testing Services
Law Engineering Project No. 12000-0-2050

Dear Ms. Quinn

Law Engineering and Environmental Services, Inc. has completed the assigned laboratory tests for the above referenced job. We are transmitting to you the tabular summary for each of the specimens tested. These are the final results, thus, we have enclosed two copies of the following test results for your distribution:

- Grain Size Sieve Analysis with Hydrometer (ASTM D422)
  Falling Head Permeability Test (ASTM D5084)
  Water Retention Test (ASTM D2325)

If you have any questions pertaining to these test results or require additional information, please do not hesitate to call us.

Sincerely,
LAW ENGINEERING and ENVIRONMENTAL SERVICES, INC.

Harry E. Johnson.
Principal Technician

LAW Engineering and Environmental Services, Inc.
396 Plasters Avenue, NE • Atlanta, GA 30324
404-873-4761 • Fax: 404-881-0508

LAWGIBB GROUP

SPECIFIC GRAVITY AND pH TESTS

(ASTM D854 - 92 & ASTM D4972)

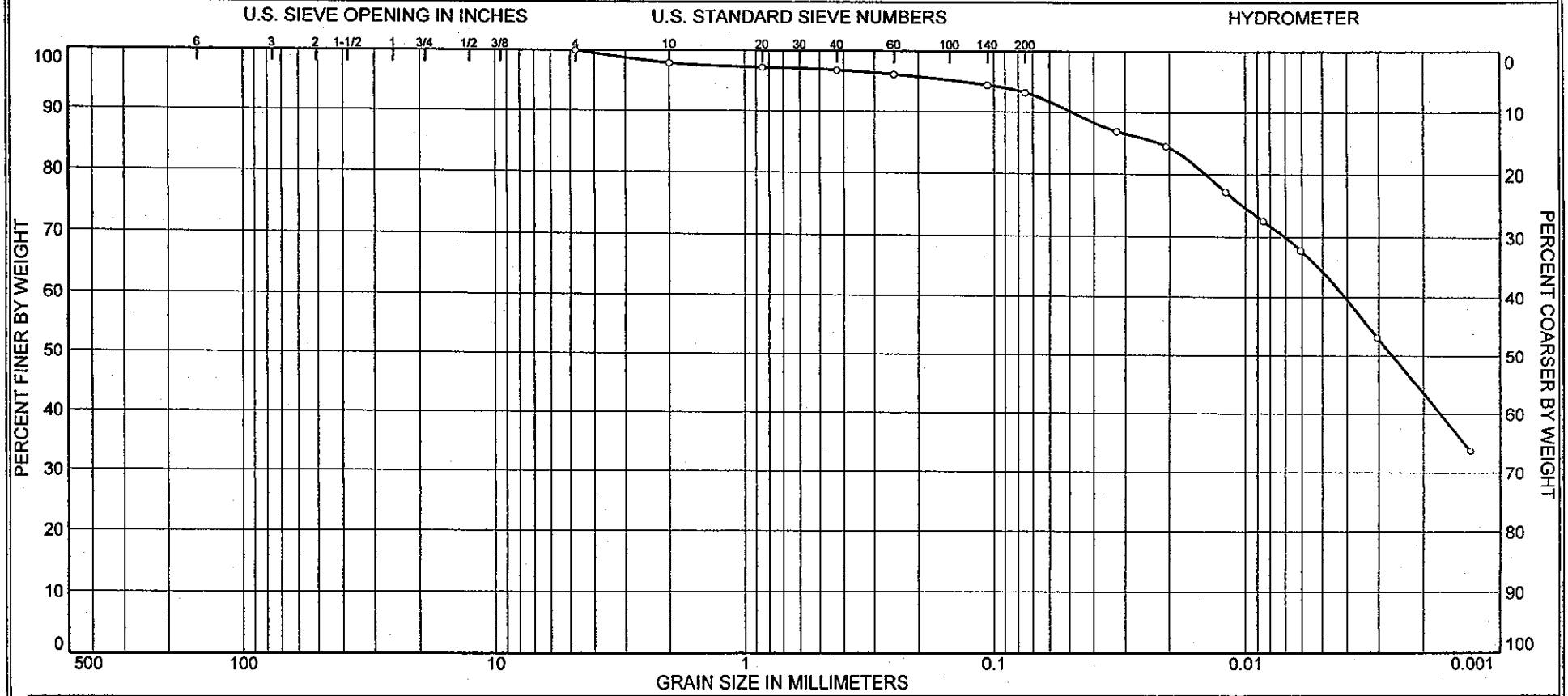
Project No. 12000-0-2050 Tested By WFL Reviewed By HJ

Project Name ThemoKing Test Date 1/9/01 Review Date 1/10/01

(1) Sample No.	(2) Flask No.	(3) Temperature (^{0}F)	(4) Weight, WF (grams)	(5) Weight, WFS (grams)	(6) Weight of Soil (grams) (5)-(4)	(7) Weight, CWF (grams)	(8) Weight, DS (grams)	(9) Specific Gravity (6)/[(7)-(8)+(6)]	
STB-1 @ 72'	28	22.6	253.15	290.39	37.24	359.55	382.89	2.679	
STB-1@ 60.5'	20	22.6	265.63	336.98	71.35	362.43	406.98	2.662	

WF - Water and Flask
WFS - Water, Flask and Soil
CWF - Calibration Water and Flask
DS - Deaired Sample

Particle Size Distribution Report ASTM D422/D1140



	% COBBLES	% GRAVEL		% SAND			% FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	2.1	1.1	3.6	29.0	64.2

	SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
○	Boring STB-1	Jar 2	72'	12/21/00		Gray Sandy Silty Clay	61.9		

Client

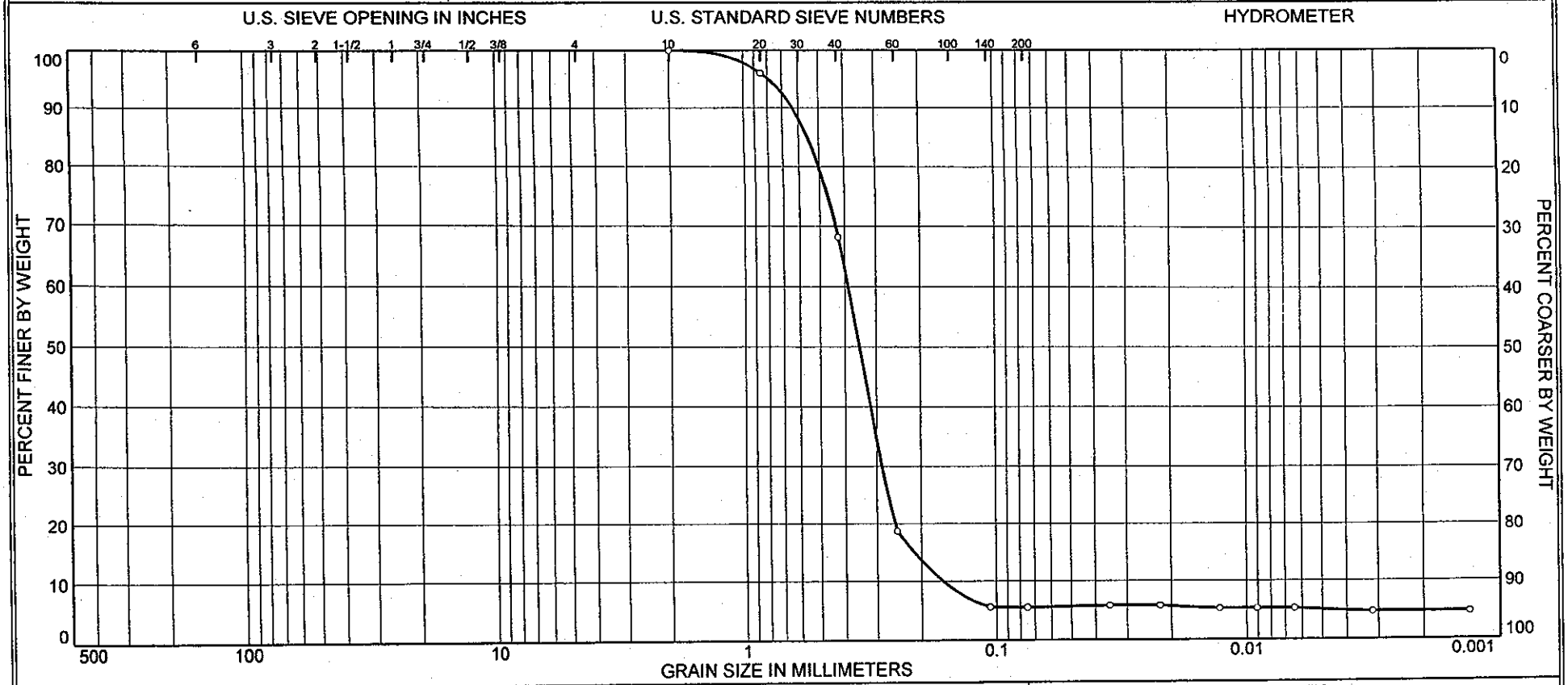
Project Themo-King Louisville

Project No. 1200002050.04.05 Plate

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

○ Tested by: WFL Reviewed by: HJ

Particle Size Distribution Report ASTM D422/D1140



	% COBBLES	% GRAVEL		% SAND			% FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	31.8	62.7	0.5	5.0

	SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
○	Boring STB-1	Jar-1	~~62-60.5~~ 67-69.5	12/21/00	SP-SM	Gray Poorly graded sand with silt	24.3		

Client

Project Themo-King Louisville

Project No. 1200002050.04.05 Plate

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

○ Tested by: WFL Reviewed by: HJ

LAWGIBB GROUP

HYDRAULIC CONDUCTIVITY

Project No.	*12000-0-2050.04.05*	Tested By	*DMJ*
Project Name	***Themo King***	Test Date	*01/02/01*
Boring No.	*STB-1*	Reviewed By	*HEJ*
Sample No.	*Ud*	Review Date	*01/08/00*
Sample Depth	*67-69.5'*		
Sample Description	***Light Gray Silty Sand***		

ASTM D5084 - Falling Head

Sample Type:	*UD*
Sample Orientation:	*Vertical*
Initial Water Content, %:	*29.5*
Wet Unit Weight, pcf:	*119.9*
Dry Unit Weight, pcf:	*92.7*
Compaction, %:	*N/A*
Hydraulic Conductivity, cm/sec. @20 °C	***9.4E-05***

LAWGIBB GROUP

HYDRAULIC CONDUCTIVITY

Project No.	*12000-0-2050.04.05*	Tested By	*DMJ*
Project Name	*Themo King*	Test Date	*01/02/01*
Boring No.	*STB-1*	Reviewed By	*HEJ*
Sample No.	*Ud*	Review Date	*01/08/00*
Sample Depth	*72-73'*		
Sample Description	*Light Gray Sandy Clayey Silt*		

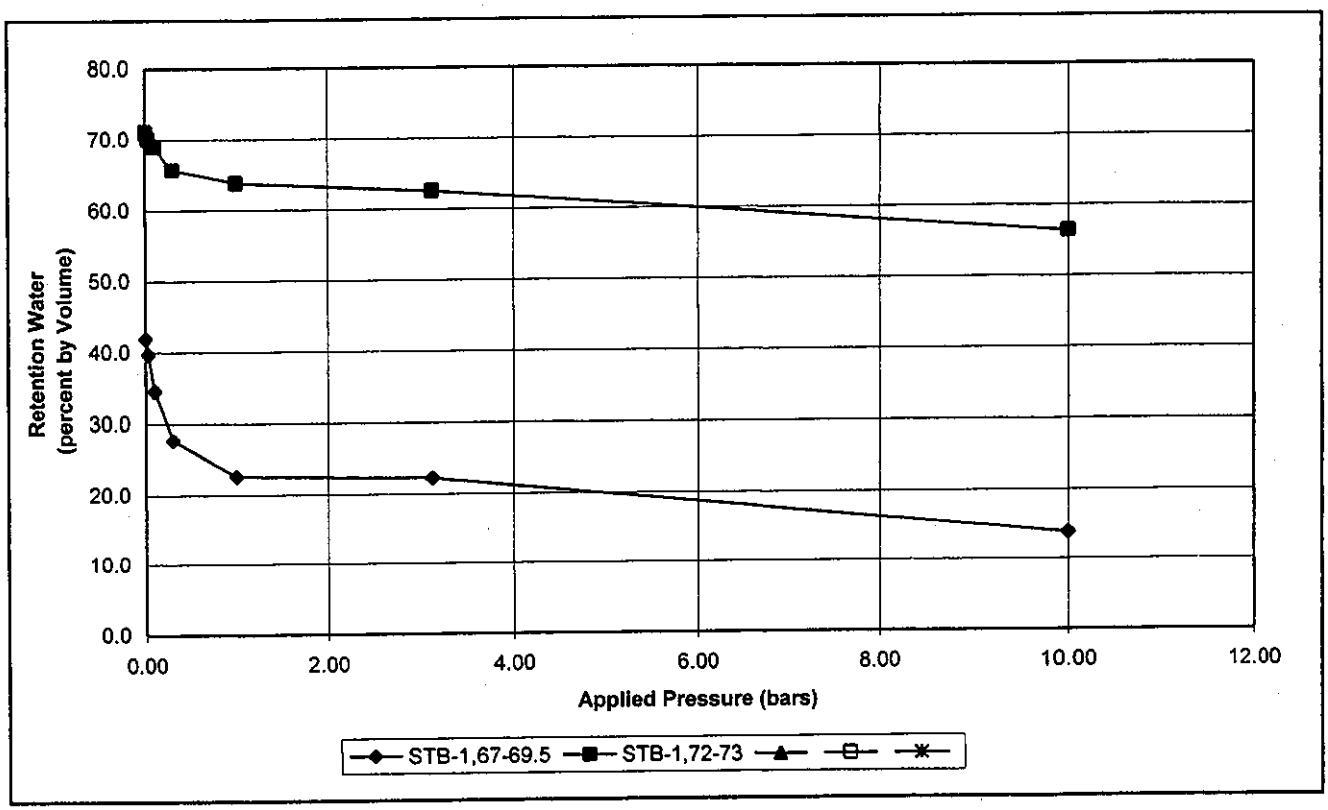
ASTM D5084 - Falling Head

Sample Type:	*UD*
Sample Orientation:	*Vertical*
Initial Water Content, %:	*34.3*
Wet Unit Weight, pcf:	*108.3*
Dry Unit Weight, pcf:	*80.6*
Compaction, %:	*N/A*
Hydraulic Conductivity, cm/sec. @20 °C	***2.1E-07***

LAWGIBB GROUP

Water Retention Test
(ASTM D2325)

Project No	12000-0-2050	Date	January 8,2001
Phase	0.04	Sample Selected By	JTM
Task	0.05	Tested By	JTM
Project Name	Themo King	Checked By	HJ



Sample ID	Initial Moisture % by Vol.	Dry Unit Weight (pcf)	Applied Pressure (bars) 0.00	0.03	0.1	0.3	1.0	3.1	10.0			
			Retained Water (percent by volume)									
STB-1,67-69.5	36.8	94.5	42.0	39.7	34.6	27.7	22.6	22.2	13.93			
STB-1,72-73	63.1	66.0	71.0	70.0	69.0	65.7	63.8	62.6	56.32			

Remarks: The effective porosity (effective drainage porosity as defined by ASTM D653, as a percent, is found for an applied pressure by subtracting the retained percent water (by volume) from the saturation percent water.
When testing at pressures higher than one bar, ASTM D2325 using similar equipment designed for the required capacity.

LAWGIBB GROUP

Water Retention Test
(ASTM D2325)

Project No	12000-0-2050	Date	January 8,2001
Phase	0.04	Sample Selected By	JTM
Task	0.05	Tested By	JTM
Project Name	Themo King	Checked By	HJ

Sample No.	STB-1	STB-1			
Depth (ft)	67-69.5	72-73			
Sample ID	UD	Ud			
Ring No.	13	8-3			
Container Weight. (g)	74.47	70.97			
Container Diameter (cm)	5.36	5.39			
Container Height, (cm)	3	3			
Container Volume (cm^3)	67.69	68.45			
Wt. of Wet Soil + Container (g)	201.89	186.62			
Wt. of Dry Soil + Container (g)	176.98	143.40			
Moisture Content (%)	24.3	59.7			
Dry Unit Weight (pcf)	94.50	66.03			
Initial Wt.Wet Soil + Container (g)	201.89	186.62			
Initial Wt. Container (g)	74.47	70.97			
Initial Moisture, % by Volume	36.8	63.1			

Sample ID	Pressure										
		psi	0	0.435	1.45	4.35	14.5	45.53	145.09		
		bars	0.0	0.03	0.1	0.3	1.0	3.1	10.0		
	Date / Read By		20-Dec	21-Dec	22-Dec	2-Jan	3-Jan	5-Jan	8-Jan		
UD	Weight of Soil + Ring		252.05	250.49	246.99	242.32	238.79	192	186.41		
	Weight of Ring		121.12	121.1	121.08	121.06	121	74.47	74.47		
	Retained Water (%)		42.0	39.7	34.6	27.7	22.6	22.2	13.9		
Ud	Weight of Soil + Ring		235.16	234.47	233.78	231.51	230.21	186.24	181.95		
	Weight of Ring		114.12	114.1	114.1	114.1	114.08	70.97	70.97		
	Retained Water (%)		71.0	70.0	69.0	65.7	63.8	62.6	56.3		

No. of Samples	2
No. of Tests per Sample	7

LAWGIBB GROUP

Water Retention Test
(ASTM D2325)

Project No	12000-0-2050	Date	January 8,2001
Phase	0.04	Sample Selected By	JTM
Task	0.05	Tested By	JTM
Project Name	Themo King	Checked By	HJ

Sample No.	STB-1	STB-1			
Depth (ft)	67-69.5	72-73			
Sample ID	UD	Ud			
Ring No.	13	8-3			
Container Weight. (g)	74.47	70.97			
Container Diameter (cm)	5.36	5.39			
Container Height, (cm)	3	3			
Container Volume (cm^3)	67.69	68.45			
Wt. of Wet Soil + Container (g)	201.89	186.62			
Wt. of Dry Soil + Container (g)	176.98	143.40			
Moisture Content (%)	24.3	59.7			
Dry Unit Weight (pcf)	94.50	66.03			
Initial Wt.Wet Soil + Container (g)	201.89	186.62			
Initial Wt. Container (g)	74.47	70.97			
Initial Moisture, % by Volume	36.8	63.1			

Sample ID	Pressure	psi	0	0.435	1.45	4.35	14.5	45.53	145.09			
		bars	0.0	0.03	0.1	0.3	1.0	3.1	10.0			
	Date / Read By		20-Dec	21-Dec	22-Dec	2-Jan	3-Jan	5-Jan	8-Jan			
UD	Weight of Soil + Ring		252.05	250.49	246.99	242.32	238.79	192	186.41			
	Weight of Ring		121.12	121.1	121.08	121.06	121	74.47	74.47			
	Retained Water (%)		42.0	39.7	34.6	27.7	22.6	22.2	13.9			
Ud	Weight of Soil + Ring		235.16	234.47	233.78	231.51	230.21	186.24	181.95			
	Weight of Ring		114.12	114.1	114.1	114.1	114.08	70.97	70.97			
	Retained Water (%)		71.0	70.0	69.0	65.7	63.8	62.6	56.3			

No. of Samples 2
No. of Tests per Sample 7

SEVERN TRENT STL

February 28, 2003

Mr. Roger Toth
Severn Trent Laboratories
4101 Shuffel Drive NW
No. Canton, OH 44720

Re: Laboratory Project No. 23006
Case: 23006; SDG: 3B060250

Dear Mr. Toth:

Enclosed are the analytical results for samples received by STL Burlington on February 11, 2003. Laboratory numbers were assigned and designated as follows:

Lab ID	Client Sample ID	Sample Date	Sample Matrix
	Received: 02/11/03	ETR No: 92098	
517304	SB-113: 43'-45'	02/05/03	Soil

Documentation that identifies the condition of the samples at the time of sample receipt and the issues arising at the time of sample log-in is included in the Sample Handling section of this submittal.

Please note that no exceptions to the method prescribed quality control criteria were observed during the analysis of the sample in this delivery group.

Client specified matrix spike/matrix spike duplicate samples were not analyzed or requested with the above sample. However, routine method quality control analyses were performed.

If there are any questions regarding this submittal, please contact Ron Pentkowski at (802) 655-1203.

This report shall not be reproduced, except in full, without the written approval of the laboratory. This report is sequentially numbered starting with page 0001 and ending with page 0008.

0001

Severn Trent Laboratories, Inc.
STL Burlington • 208 South Park Drive, Suite 1, Colchester, VT 05446
Tel 802 655 1203 Fax 802 655 1248 • *www.stl-inc.com*

A part of Severn Trent plc

I certify that this package is in compliance with the NELAC requirements, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Sincerely,

Michael F. Wheeler, Ph.D.
Laboratory Director

Enclosure

Permeability of Granular Soils
Constant;Falling Head
ASTM D2434

Client:	STLOHN	**ETR(s) #:**	92098
Client Code:	STLOHN	**SDG(s):**	3B060250
Project:	23008	**Start Date:**	12-Feb-03
Case:	23008	**End Date:**	14-Feb-03
Date Received:	11-Feb-03	**Analyst:**	DJP

Lab #: **517304** Sample ID: **SB-113**

Diameter, cm:	6.3	Pan Weight, g:	3.79
Area (A), cm2:	31.2	Wet Sample/Pan Weight,g:	138.17
Soil Length (L), cm:	6.4	Dry Sample/Pan Weight,g:	109.95
		Moisture content, %:	26.58%
		Dry unit weight, g/cm3:	0.53
		Void ratio (G=2.65):	3.98

Test	1	2	3	4	5	Best Fit
Manometer						
H initial, cm	48.0	45.1	42.8	39.5	39.5	
H final, cm						
Head (H), cm	48.0	45.1	42.8	39.5	39.5	
Time (t), seconds	420.0	420.0	420.0	540.0	420.0	
Q, cm3	80	74	69	81	57	
Q/At, cm/seconds	6.11E-03	5.65E-03	5.27E-03	4.81E-03	4.35E-03	
Hyd grad (H/L)	7.50	7.05	6.69	6.17	6.17	
Temperature, deg C	18.5	18.0	18.0	18.0	18.0	18.1
Permeability (k), cm/s (at 20 deg C)	8.5E-04	8.4E-04	8.3E-04	8.2E-04	7.4E-04	**8.5E-04**

GEOTECHNICAL / GENERAL CHEMISTRY

Sample Report Summary

Client Sample No.

SB-113: 43'-45'

Lab Name: STL BURLINGTON | Contract: A3B060250 | SDG No.: 3B060250

Lab Code: STLVT | Case No.: 23008 | Lab Sample ID: 517304

Matrix: SOIL | Client: STLOHN | Date Received: 02/11/03

% Solids:

Method	Parameter	Analytical Run Date	Analytical Run Time	Analytical Batch	Units	DF	RL	Conc.	Qual.
D2434	Soil Permeability	02/12/03	10:00	N/A	cm/s	1.0	0	8.5e-04	U
D2937	In-Place Density	02/13/03	10:00	N/A	g/cm3	1.0	0	1.36	U
POROSITY	Calculation (D2937+D854)	02/14/03	10:00	N/A	%	1.0	0.1	49.69	U
D854	Specific Gravity	02/12/03	10:00			1	0.0	2.70	

Laboratory: STL Burlington
55 South Park Drive

Colchester, VT 05446

Severn Trent Laboratories, Inc
SAMPLE ANALYSIS REQUISITION
Lab Request # SR046067

Report Package: ~~Expanded Deliverables~~ Report QC 2-10-03

Need Analytical Report 2003-02-24

Client Code: 63038

Project Manager: ROGER TOTH

Sample I.D.	Work Order Number	Client Sample ID	Sampling Date	Analysis Required
A3B060250-7	FG8HM	SB-113: 43'-45'	2003-02-05	Special (work ~~sent out~~ / Misc.) see attached

0008

Need detection limit and analysis date included in report.
Please send a signed copy of this form with the report of completion of analysis.

Shipping Method: AIRBORNE

Relinquished by: Jennifer Stiller Date/Time: 2-6-03 4:15P
Relinquished by: _____ Date/Time: _____
Received for lab by: Glen Corcoran Date/Time: 2-11-03 1145

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISITION

In-place Density by ASTM D 2937
Soil Moisture by ASTM D 2216
Porosity and Wet Density By Calculation

Client:	STLOHN	**ETR(s):**	92098
Client Code:	STLOHN	**SDG(s):**	3B060250
Project:	23008	**Analyst(s):**	DJP
Case:	23008	**Start Date:**	12-Feb-03
Date Received:	11-Feb-03	**End Date:**	13-Feb-03

Sample No.	**517304**
Sample ID.	SB-113
Sample Wet Wt. (grams)	719.60
Container/Sample Wt. (Wet)	1001.35
Container Wt.	281.75
% Moisture (dry Mass basis)	26.6%
Pan Wt.	3.79
Pan/Wet Wt.	138.17
Pan/Dry Wt.	109.95
Sample Volume (cm3)	418.54
Sample Recovery	10.00
Container Diameter	7.30
Area	41.85
Dry Mass (grams)	568.48
In-place Density (g/cm3)	**1.36**
Specific Gravity	2.70
Porosity (%)	49.69

Submitted by:_____ Date:02/27/2003

ASTM Method D854: Standard Test Method for Specific Gravity of Soils
Calculations

Client Code: STLOHN
ETR: 92098
SDG: 3B060250

Start Date: 2/12/03
Start Time: 10:00
End Date: 2/14/03
Analyst: DJP

Laboratory Number	Flask Number	Weight Of						Temperature of		Oven Dried Sample Mass (g)	Density @ H_2O Temp	Density at Sample Temp.	Specific Gravity
		Flask Volume (ml)	Flask (g)	Flask + H_2O (g)	Flask + H_2O + Sample (g)	Pan (g)	Pan + Sample (g)	Flask + H_2O (°C)	Flask + H_2O + Sample (°C)				
517304	48	100	55.91	155.66	175.39	55.91	87.22	19.0	17.5	31.31	0.998	0.999	2.70

Particle Size of Soils by ASTM D422

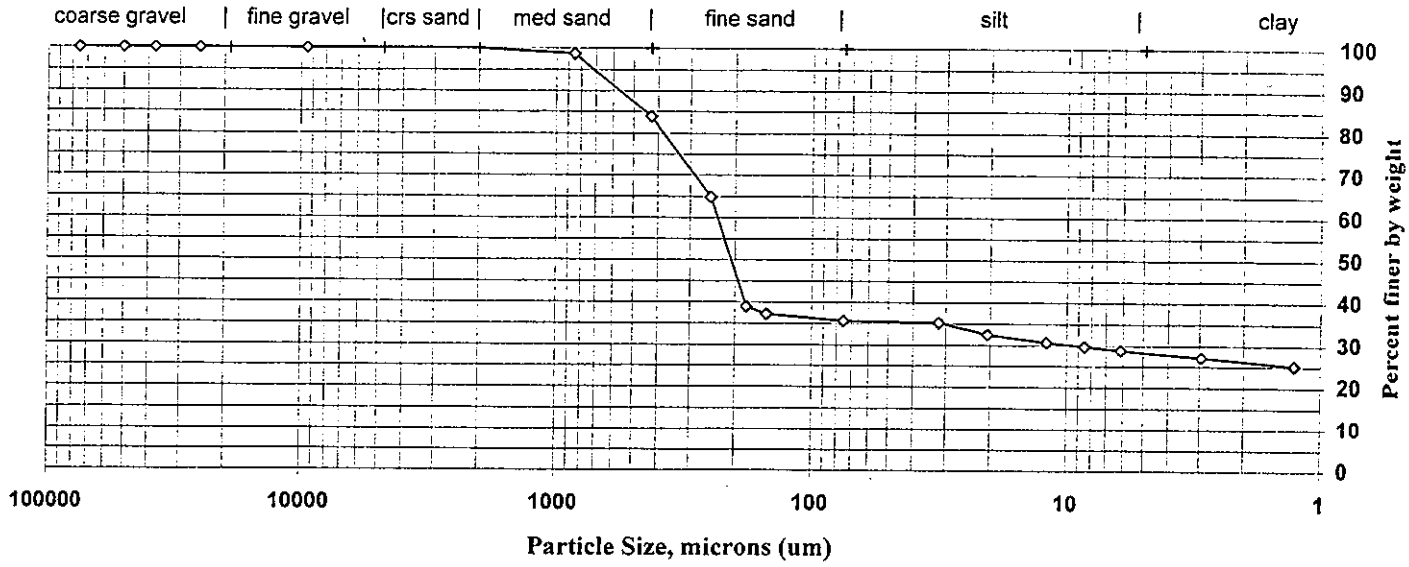
Sample preparation method: D2217

Client:	STLOHN	**Project No.:**	23008	**ETR(s) #:**	92098
Client Code:	STLOHN	**Job No.:**	N/A	**SDG(s):**	3B060250
Date Received:	11-Feb-03	**Start Date:**	12-Feb-03	**End Date:**	19-Feb-03

Lab ID: 517304 **Sample ID:** SB-113

Percent Solids: 79.0%
Specific Gravity: 2.65 (assumed)
Non-soil mass: 0.1%

Maximum Particle Size: Med sand
Shape (> #10): N/A
Hardness (> #10): N/A



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	98.7	1.3
#40	425	83.9	14.8
#60	250	64.9	19.0
#80	180	38.9	25.9
#100	150	37.2	1.8
#200	75	35.6	1.6
Hydrometer	31.8	35.2	0.4
|	20.5	32.5	2.7
|	12.0	30.7	1.8
|	8.5	29.7	0.9
|	6.1	28.8	0.9
|	3.0	27.2	1.7
V	1.3	25.2	2.0

Soil Classification	Percent of Total Sample
Gravel	0.0
Sand	64.4
Coarse Sand	0.0
Medium Sand	16.1
Fine Sand	48.3
Silt	6.8
Clay	28.8

Dispersion Device: Mechanical mixer with a metal paddle.
Dispersion Period: 1 minute

APPENDIX I

CSR LABORATORY ANALYTICAL RESULTS – CHEMICAL ANALYSES

SOIL

SAMPLE SUMMARY

A3A220184

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FGGEW	001	SB-102:0'-2'	01/21/03	10:00
FGGE4	002	SB-102:5'-6'	01/21/03	13:15
FGGE7	003	SB-102:35'-36'	01/21/03	13:00
FGGFC	004	SB-104:0'-2'	01/21/03	14:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

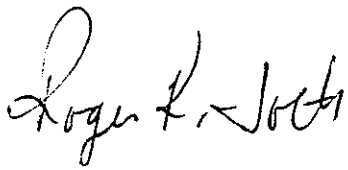
TK LOUISVILLE/GA

Lot #: A3A220184

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.



Roger K. Toth
Project Manager

February 10, 2003

CASE NARRATIVE

A3A220184

The following report contains the analytical results for four solid samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK Louisville/GA Site. The samples were received on January 22, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on January 30, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 4.2° C.

GC/MS VOLATILES

Sample(s) that contain results between the MDL and the RL were flagged with "J". There is the possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The solid samples were preserved by freezing in water.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3A220184

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-102:0'-2' 01/21/03 10:00 001				
Percent Solids	93.1	10.0	%	MCAWW 160.3 MOD
SB-102:5'-6' 01/21/03 13:15 002				
Percent Solids	84.8	10.0	%	MCAWW 160.3 MOD
SB-102:35'-36' 01/21/03 13:00 003				
Percent Solids	95.9	10.0	%	MCAWW 160.3 MOD
SB-104:0'-2' 01/21/03 14:30 004				
Percent Solids	92.6	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A3A220184

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A3A220184

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FGGEW	001	SB-102:0'-2'	01/21/03	10:00
FGGE4	002	SB-102:5'-6'	01/21/03	13:15
FGGE7	003	SB-102:35'-36'	01/21/03	13:00
FGGFC	004	SB-104:0'-2'	01/21/03	14:30

NOTE(S):

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- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-102:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A220184-001 **Work Order #...:** FGGEW1AC **Matrix.....:** SO
Date Sampled...: 01/21/03 10:00 **Date Received..:** 01/22/03
Prep Date.....: 01/28/03 **Analysis Date..:** 01/28/03
Prep Batch #...: 3028447
Dilution Factor: 0.88
% Moisture.....: 6.9 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.7	ug/kg
Bromodichloromethane	ND	4.7	ug/kg
Bromoform	ND	4.7	ug/kg
Bromomethane	ND	9.5	ug/kg
Carbon tetrachloride	ND	4.7	ug/kg
Chlorobenzene	ND	4.7	ug/kg
Chlorodibromomethane	ND	4.7	ug/kg
Chloroethane	ND	9.5	ug/kg
Chloroform	ND	4.7	ug/kg
Chloromethane	ND	9.5	ug/kg
Dibromomethane	ND	4.7	ug/kg
1,2-Dichlorobenzene	ND	4.7	ug/kg
1,3-Dichlorobenzene	ND	4.7	ug/kg
1,4-Dichlorobenzene	ND	4.7	ug/kg
Dichlorodifluoromethane	ND	9.5	ug/kg
1,1-Dichloroethane	ND	4.7	ug/kg
1,2-Dichloroethane	ND	4.7	ug/kg
cis-1,2-Dichloroethene	ND	4.7	ug/kg
trans-1,2-Dichloroethene	ND	4.7	ug/kg
1,1-Dichloroethene	ND	4.7	ug/kg
1,2-Dichloropropane	ND	4.7	ug/kg
1,3-Dichloropropane	ND	4.7	ug/kg
2,2-Dichloropropane	ND	4.7	ug/kg
1,1-Dichloropropene	ND	4.7	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.7	ug/kg
Hexachlorobutadiene	ND	4.7	ug/kg
Isopropylbenzene	ND	4.7	ug/kg
Methylene chloride	ND	4.7	ug/kg
Naphthalene	ND	4.7	ug/kg
Styrene	ND	4.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg
Tetrachloroethene	ND	4.7	ug/kg
Toluene	ND	4.7	ug/kg
1,2,4-Trichloro-benzene	ND	4.7	ug/kg
1,1,1-Trichloroethane	ND	4.7	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-102:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A220184-001 Work Order #...: FGGEW1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.7	ug/kg
Trichloroethene	ND	4.7	ug/kg
Trichlorofluoromethane	ND	9.5	ug/kg
1,2,3-Trichloropropane	ND	4.7	ug/kg
Vinyl chloride	ND	4.7	ug/kg
Xylenes (total)	ND	4.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(59 - 138)
1,2-Dichloroethane-d4	82	(61 - 130)
Toluene-d8	86	(60 - 143)
4-Bromofluorobenzene	90	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-102:5'-6'

GC/MS Volatiles

Lot-Sample #...: A3A220184-002 Work Order #...: FGGE41AC Matrix.....: SO
Date Sampled...: 01/21/03 13:15 Date Received..: 01/22/03
Prep Date.....: 01/28/03 Analysis Date..: 01/28/03
Prep Batch #...: 3028447
Dilution Factor: 0.83
% Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.9	ug/kg
Bromodichloromethane	ND	4.9	ug/kg
Bromoform	ND	4.9	ug/kg
Bromomethane	ND	9.8	ug/kg
Carbon tetrachloride	ND	4.9	ug/kg
Chlorobenzene	ND	4.9	ug/kg
Chlorodibromomethane	ND	4.9	ug/kg
Chloroethane	ND	9.8	ug/kg
Chloroform	ND	4.9	ug/kg
Chloromethane	ND	9.8	ug/kg
Dibromomethane	ND	4.9	ug/kg
1,2-Dichlorobenzene	ND	4.9	ug/kg
1,3-Dichlorobenzene	ND	4.9	ug/kg
1,4-Dichlorobenzene	ND	4.9	ug/kg
Dichlorodifluoromethane	ND	9.8	ug/kg
1,1-Dichloroethane	ND	4.9	ug/kg
1,2-Dichloroethane	ND	4.9	ug/kg
cis-1,2-Dichloroethene	ND	4.9	ug/kg
trans-1,2-Dichloroethene	ND	4.9	ug/kg
1,1-Dichloroethene	ND	4.9	ug/kg
1,2-Dichloropropane	ND	4.9	ug/kg
1,3-Dichloropropane	ND	4.9	ug/kg
2,2-Dichloropropane	ND	4.9	ug/kg
1,1-Dichloropropene	ND	4.9	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.9	ug/kg
Hexachlorobutadiene	ND	4.9	ug/kg
Isopropylbenzene	ND	4.9	ug/kg
Methylene chloride	ND	4.9	ug/kg
Naphthalene	ND	4.9	ug/kg
Styrene	ND	4.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.9	ug/kg
Tetrachloroethene	ND	4.9	ug/kg
Toluene	ND	4.9	ug/kg
1,2,4-Trichloro-benzene	ND	4.9	ug/kg
1,1,1-Trichloroethane	ND	4.9	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-102:5'-6'

GC/MS Volatiles

Lot-Sample #...: A3A220184-002 Work Order #...: FGGE41AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.9	ug/kg
Trichloroethene	ND	4.9	ug/kg
Xylenes (total)	ND	4.9	ug/kg
Trichlorofluoromethane	ND	9.8	ug/kg
1,2,3-Trichloropropane	ND	4.9	ug/kg
Vinyl chloride	ND	4.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	86	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-102:35'-36'

GC/MS Volatiles

Lot-Sample #...: A3A220184-003 **Work Order #...:** FGGE71AC **Matrix.....:** SO
Date Sampled...: 01/21/03 13:00 **Date Received..:** 01/22/03
Prep Date.....: 01/29/03 **Analysis Date..:** 01/29/03
Prep Batch #...: 3028468
Dilution Factor: 1.19
% Moisture.....: 4.1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	6.2	ug/kg
Bromodichloromethane	ND	6.2	ug/kg
Bromoform	ND	6.2	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	6.2	ug/kg
Chlorobenzene	ND	6.2	ug/kg
Chlorodibromomethane	ND	6.2	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	6.2	ug/kg
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	6.2	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	6.2	ug/kg
1,2-Dichloroethane	ND	6.2	ug/kg
1,2-Dichlorobenzene	ND	6.2	ug/kg
1,3-Dichlorobenzene	ND	6.2	ug/kg
1,4-Dichlorobenzene	ND	6.2	ug/kg
cis-1,2-Dichloroethene	ND	6.2	ug/kg
trans-1,2-Dichloroethene	ND	6.2	ug/kg
1,1-Dichloroethene	ND	6.2	ug/kg
1,2-Dichloropropane	ND	6.2	ug/kg
1,3-Dichloropropane	ND	6.2	ug/kg
2,2-Dichloropropane	ND	6.2	ug/kg
1,1-Dichloropropene	ND	6.2	ug/kg
1,4-Dioxane	ND	310	ug/kg
Ethylbenzene	ND	6.2	ug/kg
Hexachlorobutadiene	ND	6.2	ug/kg
Isopropylbenzene	ND	6.2	ug/kg
Methylene chloride	ND	6.2	ug/kg
Naphthalene	ND	6.2	ug/kg
Styrene	ND	6.2	ug/kg
1,1,1,2-Tetrachloroethane	ND	6.2	ug/kg
1,1,2,2-Tetrachloroethane	ND	6.2	ug/kg
Tetrachloroethene	ND	6.2	ug/kg
Toluene	ND	6.2	ug/kg
1,2,4-Trichloro-benzene	ND	6.2	ug/kg
1,1,1-Trichloroethane	ND	6.2	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-102:35'-36'

GC/MS Volatiles

Lot-Sample #...: A3A220184-003 Work Order #...: FGGE71AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	6.2	ug/kg
Trichloroethene	ND	6.2	ug/kg
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	6.2	ug/kg
Vinyl chloride	ND	6.2	ug/kg
Xylenes (total)	ND	6.2	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	77	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-104:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A220184-004 **Work Order #...:** FGGFC1AC **Matrix.....:** SO
Date Sampled...: 01/21/03 14:30 **Date Received..:** 01/22/03
Prep Date.....: 01/29/03 **Analysis Date..:** 01/29/03
Prep Batch #...: 3028468
Dilution Factor: 0.83
% Moisture.....: 7.4 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.5	ug/kg
Bromodichloromethane	ND	4.5	ug/kg
Bromoform	ND	4.5	ug/kg
Bromomethane	ND	9.0	ug/kg
Carbon tetrachloride	ND	4.5	ug/kg
Chlorobenzene	ND	4.5	ug/kg
Chlorodibromomethane	ND	4.5	ug/kg
Chloroethane	ND	9.0	ug/kg
Chloroform	ND	4.5	ug/kg
Chloromethane	ND	9.0	ug/kg
Dibromomethane	ND	4.5	ug/kg
1,2-Dichlorobenzene	ND	4.5	ug/kg
1,3-Dichlorobenzene	ND	4.5	ug/kg
1,4-Dichlorobenzene	ND	4.5	ug/kg
Dichlorodifluoromethane	ND	9.0	ug/kg
1,1-Dichloroethane	ND	4.5	ug/kg
1,2-Dichloroethane	ND	4.5	ug/kg
cis-1,2-Dichloroethene	ND	4.5	ug/kg
trans-1,2-Dichloroethene	ND	4.5	ug/kg
1,1-Dichloroethene	ND	4.5	ug/kg
1,2-Dichloropropane	ND	4.5	ug/kg
1,3-Dichloropropane	ND	4.5	ug/kg
2,2-Dichloropropane	ND	4.5	ug/kg
1,1-Dichloropropene	ND	4.5	ug/kg
1,4-Dioxane	ND	220	ug/kg
Ethylbenzene	ND	4.5	ug/kg
Hexachlorobutadiene	ND	4.5	ug/kg
Isopropylbenzene	ND	4.5	ug/kg
Methylene chloride	ND	4.5	ug/kg
Naphthalene	ND	4.5	ug/kg
Styrene	ND	4.5	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.5	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.5	ug/kg
Tetrachloroethene	ND	4.5	ug/kg
Toluene	ND	4.5	ug/kg
1,2,4-Trichloro-benzene	ND	4.5	ug/kg
1,1,1-Trichloroethane	ND	4.5	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-104:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A220184-004 Work Order #...: FGGFC1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.5	ug/kg
Trichloroethene	ND	4.5	ug/kg
Trichlorofluoromethane	ND	9.0	ug/kg
1,2,3-Trichloropropane	ND	4.5	ug/kg
Vinyl chloride	ND	4.5	ug/kg
Xylenes (total)	ND	4.5	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	77	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A220184 **Work Order #...:** FGRPV1AA **Matrix.....:** SOLID
MB Lot-Sample #: A3A280000-447

Prep Date.....: 01/28/03
Analysis Date..: 01/28/03 **Prep Batch #...:** 3028447
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A220184 **Work Order #...:** FGRPV1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	85	(60 - 143)
4-Bromofluorobenzene	89	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A220184 **Work Order #...:** FGRQT1AA **Matrix.....:** SOLID
MB Lot-Sample #: A3A280000-468

Prep Date.....: 01/28/03
Analysis Date..: 01/28/03 **Prep Batch #...:** 3028468
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A220184 **Work Order #...:** FGRQT1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(59 - 138)
1,2-Dichloroethane-d4	91	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A220184 **Work Order #...:** FGRPV1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3A280000-447 FGRPV1AD-LCSD
Prep Date.....: 01/28/03 **Analysis Date..:** 01/28/03
Prep Batch #...: 3028447
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**97**	**(55 - 142)**			**SW846 8260B**
	91	**(55 - 142)**	**6.2**	**(0-27)**	**SW846 8260B**
Trichloroethene	**95**	**(70 - 131)**			**SW846 8260B**
	90	**(70 - 131)**	**5.2**	**(0-23)**	**SW846 8260B**
Benzene	**98**	**(75 - 129)**			**SW846 8260B**
	94	**(75 - 129)**	**4.0**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(71 - 130)**			**SW846 8260B**
	93	**(71 - 130)**	**3.1**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**94**	**(75 - 127)**			**SW846 8260B**
	92	**(75 - 127)**	**1.9**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(59 - 138)
	86	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
	85	(61 - 130)
Toluene-d8	86	(60 - 143)
	85	(60 - 143)
4-Bromofluorobenzene	95	(47 - 158)
	94	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A220184 **Work Order #...:** FGRQT1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3A280000-468 FGRQT1AD-LCSD
Prep Date.....: 01/28/03 **Analysis Date..:** 01/28/03
Prep Batch #...: 3028468
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**100**	**(55 - 142)**			**SW846 8260B**
	102	**(55 - 142)**	**1.6**	**(0-27)**	**SW846 8260B**
Trichloroethene	**93**	**(70 - 131)**			**SW846 8260B**
	96	**(70 - 131)**	**2.6**	**(0-23)**	**SW846 8260B**
Benzene	**95**	**(75 - 129)**			**SW846 8260B**
	95	**(75 - 129)**	**0.48**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(71 - 130)**			**SW846 8260B**
	100	**(71 - 130)**	**1.1**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**97**	**(75 - 127)**			**SW846 8260B**
	97	**(75 - 127)**	**0.31**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
	95	(59 - 138)
1,2-Dichloroethane-d4	86	(61 - 130)
	88	(61 - 130)
Toluene-d8	92	(60 - 143)
	94	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)
	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A220184 **Work Order #...:** FGCTA1AE-MS **Matrix.....:** SOLID
MS Lot-Sample #: A3A200138-001 FGCTA1AF-MSD
Date Sampled...: 01/18/03 13:10 **Date Received..:** 01/20/03
Prep Date.....: 01/28/03 **Analysis Date..:** 01/29/03
Prep Batch #...: 3028468
Dilution Factor: 1 **% Moisture.....:** 8.0

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**80**	**(43 - 147)**			**SW846 8260B**
	84	**(43 - 147)**	**4.8**	**(0-27)**	**SW846 8260B**
Trichloroethene	**76**	**(46 - 143)**			**SW846 8260B**
	85	**(46 - 143)**	**11**	**(0-23)**	**SW846 8260B**
Benzene	**81**	**(55 - 138)**			**SW846 8260B**
	87	**(55 - 138)**	**6.6**	**(0-20)**	**SW846 8260B**
Toluene	**81**	**(46 - 147)**			**SW846 8260B**
	88	**(46 - 147)**	**8.3**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**79**	**(49 - 139)**			**SW846 8260B**
	85	**(49 - 139)**	**7.9**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
	95	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
	86	(61 - 130)
Toluene-d8	94	(60 - 143)
	92	(60 - 143)
4-Bromofluorobenzene	88	(47 - 158)
	84	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MacTec	Rhonda Quinn	1/21/03	167995
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr. Suite 100	(770) 421-3400 / (770) 421-3486		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bob Seymour	Roger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville / GA	Fed Ex: 836397950275		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Analysis: Moisture	Special Instructions/ Conditions of Receipt
SB-102: 0'-2'	1/21/03	10:00				X	4						3	1	For questions
SB-102: 5'-6'	1/21/03	13:15				X	4						3	1	call Rhonda Quinn
SB-102: 35'-36'	1/21/03	13:00				X	4						3	1	at (770) 421-3400
SB-104: 0'-2'	1/21/03	14:30				X	4						3	1	
															See attached list
															for analysis
															parameters

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: R. Seymour — To Fed Ex	Date: 1/21/02	Time: 15:00	1. Received By: S	Date: 1-22-03	Time: 0940
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3B080116

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FHCEQ	001	SB-103:0'-2'	02/06/03	14:45
FHCET	002	SB-103:26'-28'	02/06/03	18:05
FHCEV	003	SB-103:46'-48'	02/06/03	16:15
FHCEW	004	TRIP BLANK NO.4	02/07/03	
FHCEX	005	SB-107:0'-2'	02/07/03	11:45
FHCE0	006	SB-107:14'-16'	02/07/03	12:40

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3B080116

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth

Roger K. Toth
Project Manager

February 27, 2003

CASE NARRATIVE

A3B080116

The following report contains the analytical results for five solid samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting from the TK Louisville/GA Site. The samples were received on February 8, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 23, 2003. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at a temperature of 0.8° C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3B080116

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-103:0'-2' 02/06/03 14:45 001				
Percent Solids	87.3	10.0	%	MCAWW 160.3 MOD
SB-103:26'-28' 02/06/03 18:05 002				
Percent Solids	86.9	10.0	%	MCAWW 160.3 MOD
SB-103:46'-48' 02/06/03 16:15 003				
Percent Solids	90.8	10.0	%	MCAWW 160.3 MOD
SB-107:0'-2' 02/07/03 11:45 005				
Percent Solids	88.8	10.0	%	MCAWW 160.3 MOD
SB-107:14'-16' 02/07/03 12:40 006				
Percent Solids	84.4	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A3B080116

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-103:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B080116-001 **Work Order #...:** FHCEQ1AC **Matrix.....:** SO
Date Sampled...: 02/06/03 14:45 **Date Received..:** 02/08/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3045469
Dilution Factor: 0.83
% Moisture.....: 13 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.5	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.5	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.5	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.5	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	ND	4.8	ug/kg
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichloro-benzene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-103:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B080116-001 Work Order #...: FHCEQ1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	ND	4.8	ug/kg
Trichlorofluoromethane	ND	9.5	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(59 - 138)
1,2-Dichloroethane-d4	87	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-103:0'-2'

General Chemistry

Lot-Sample #...: A3B080116-001 Work Order #...: FHCEQ Matrix.....: SO
Date Sampled...: 02/06/03 14:45 Date Received..: 02/08/03
% Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	87.3	10.0	%	MCAWW 160.3 MOD	02/10-02/11/03	3041396

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-103:26'-28'

GC/MS Volatiles

Lot-Sample #...: A3B080116-002 Work Order #...: FHCET1AC Matrix.....: SO
Date Sampled...: 02/06/03 18:05 Date Received..: 02/08/03
Prep Date.....: 02/13/03 Analysis Date..: 02/13/03
Prep Batch #...: 3045469
Dilution Factor: 0.88
% Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.1	ug/kg
Bromodichloromethane	ND	5.1	ug/kg
Bromoform	ND	5.1	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.1	ug/kg
Chlorobenzene	ND	5.1	ug/kg
Chlorodibromomethane	ND	5.1	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.1	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.1	ug/kg
1,2-Dichlorobenzene	ND	5.1	ug/kg
1,3-Dichlorobenzene	ND	5.1	ug/kg
1,4-Dichlorobenzene	ND	5.1	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.1	ug/kg
1,2-Dichloroethane	ND	5.1	ug/kg
cis-1,2-Dichloroethene	ND	5.1	ug/kg
trans-1,2-Dichloroethene	ND	5.1	ug/kg
1,1-Dichloroethene	ND	5.1	ug/kg
1,2-Dichloropropane	ND	5.1	ug/kg
1,3-Dichloropropane	ND	5.1	ug/kg
2,2-Dichloropropane	ND	5.1	ug/kg
1,1-Dichloropropene	ND	5.1	ug/kg
1,4-Dioxane	ND	250	ug/kg
Ethylbenzene	ND	5.1	ug/kg
Hexachlorobutadiene	ND	5.1	ug/kg
Isopropylbenzene	ND	5.1	ug/kg
Methylene chloride	ND	5.1	ug/kg
Naphthalene	ND	5.1	ug/kg
Styrene	ND	5.1	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg
Tetrachloroethene	ND	5.1	ug/kg
Toluene	ND	5.1	ug/kg
1,2,4-Trichloro-benzene	ND	5.1	ug/kg
1,1,1-Trichloroethane	ND	5.1	ug/kg

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-103:26'-28'

GC/MS Volatiles

Lot-Sample #...: A3B080116-002 Work Order #...: FHCET1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.1	ug/kg
Trichloroethene	ND	5.1	ug/kg
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.1	ug/kg
Vinyl chloride	ND	5.1	ug/kg
Xylenes (total)	ND	5.1	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	80	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-103:26'-28'

General Chemistry

Lot-Sample #...: A3B080116-002 Work Order #...: FHCET Matrix.....: SO
Date Sampled...: 02/06/03 18:05 Date Received..: 02/08/03
% Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	86.9	10.0	%	MCAWW 160.3 MOD	02/10-02/11/03	3041396

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-103:46'-48'

GC/MS Volatiles

Lot-Sample #...: A3B080116-003 **Work Order #...:** FHCEV1AC **Matrix.....:** SO
Date Sampled...: 02/06/03 16:15 **Date Received..:** 02/08/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3045469
Dilution Factor: 1.04
% Moisture.....: 9.2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.7	ug/kg
Bromodichloromethane	ND	5.7	ug/kg
Bromoform	ND	5.7	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.7	ug/kg
Chlorobenzene	ND	5.7	ug/kg
Chlorodibromomethane	ND	5.7	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.7	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.7	ug/kg
1,2-Dichlorobenzene	ND	5.7	ug/kg
1,3-Dichlorobenzene	ND	5.7	ug/kg
1,4-Dichlorobenzene	ND	5.7	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.7	ug/kg
1,2-Dichloroethane	ND	5.7	ug/kg
cis-1,2-Dichloroethene	ND	5.7	ug/kg
trans-1,2-Dichloroethene	ND	5.7	ug/kg
1,1-Dichloroethene	ND	5.7	ug/kg
1,2-Dichloropropane	ND	5.7	ug/kg
1,3-Dichloropropane	ND	5.7	ug/kg
2,2-Dichloropropane	ND	5.7	ug/kg
1,1-Dichloropropene	ND	5.7	ug/kg
1,4-Dioxane	ND	290	ug/kg
Ethylbenzene	ND	5.7	ug/kg
Hexachlorobutadiene	ND	5.7	ug/kg
Isopropylbenzene	ND	5.7	ug/kg
Methylene chloride	ND	5.7	ug/kg
Naphthalene	ND	5.7	ug/kg
Styrene	ND	5.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg
Tetrachloroethene	ND	5.7	ug/kg
Toluene	ND	5.7	ug/kg
1,2,4-Trichloro-benzene	ND	5.7	ug/kg
1,1,1-Trichloroethane	ND	5.7	ug/kg

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-103:46'-48'

GC/MS Volatiles

Lot-Sample #...: A3B080116-003 Work Order #...: FHCEV1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.7	ug/kg
Trichloroethene	ND	5.7	ug/kg
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.7	ug/kg
Vinyl chloride	ND	5.7	ug/kg
Xylenes (total)	ND	5.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	80	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-103:46'-48'

General Chemistry

Lot-Sample #...: A3B080116-003 Work Order #...: FHCEV Matrix.....: SO
Date Sampled...: 02/06/03 16:15 Date Received..: 02/08/03
% Moisture.....: 9.2

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	90.8	10.0	%	MCAWW 160.3 MOD	02/10-02/11/03	3041396

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO.4

GC/MS Volatiles

Lot-Sample #...: A3B080116-004 Work Order #...: FHCEW1AA Matrix.....: WQ
Date Sampled...: 02/07/03 Date Received..: 02/08/03
Prep Date.....: 02/14/03 Analysis Date..: 02/14/03
Prep Batch #...: 3049169
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	50	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO.4

GC/MS Volatiles

Lot-Sample #...: A3B080116-004 Work Order #...: FHCEW1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-107:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B080116-005	**Work Order #...:** FHCEX1AC	**Matrix.....:** SO	
Date Sampled...: 02/07/03 11:45	**Date Received..:** 02/08/03		
Prep Date.....: 02/13/03	**Analysis Date..:** 02/13/03		
Prep Batch #...: 3045469			
Dilution Factor: 0.77			
% Moisture.....: 11	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.3	ug/kg
Bromodichloromethane	ND	4.3	ug/kg
Bromoform	ND	4.3	ug/kg
Bromomethane	ND	8.7	ug/kg
Carbon tetrachloride	ND	4.3	ug/kg
Chlorobenzene	ND	4.3	ug/kg
Chlorodibromomethane	ND	4.3	ug/kg
Chloroethane	ND	8.7	ug/kg
Chloroform	ND	4.3	ug/kg
Chloromethane	ND	8.7	ug/kg
Dibromomethane	ND	4.3	ug/kg
1,2-Dichlorobenzene	ND	4.3	ug/kg
1,3-Dichlorobenzene	ND	4.3	ug/kg
1,4-Dichlorobenzene	ND	4.3	ug/kg
Dichlorodifluoromethane	ND	8.7	ug/kg
1,1-Dichloroethane	ND	4.3	ug/kg
1,2-Dichloroethane	ND	4.3	ug/kg
cis-1,2-Dichloroethene	ND	4.3	ug/kg
trans-1,2-Dichloroethene	ND	4.3	ug/kg
1,1-Dichloroethene	ND	4.3	ug/kg
1,2-Dichloropropane	ND	4.3	ug/kg
1,3-Dichloropropane	ND	4.3	ug/kg
2,2-Dichloropropane	ND	4.3	ug/kg
1,1-Dichloropropene	ND	4.3	ug/kg
1,4-Dioxane	ND	220	ug/kg
Ethylbenzene	ND	4.3	ug/kg
Hexachlorobutadiene	ND	4.3	ug/kg
Isopropylbenzene	ND	4.3	ug/kg
Methylene chloride	ND	4.3	ug/kg
Naphthalene	ND	4.3	ug/kg
Styrene	ND	4.3	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.3	ug/kg
Tetrachloroethene	ND	4.3	ug/kg
Toluene	ND	4.3	ug/kg
1,2,4-Trichloro-benzene	ND	4.3	ug/kg
1,1,1-Trichloroethane	ND	4.3	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-107:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B080116-005 Work Order #...: FHCEX1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.3	ug/kg
Trichloroethene	ND	4.3	ug/kg
Trichlorofluoromethane	ND	8.7	ug/kg
1,2,3-Trichloropropane	ND	4.3	ug/kg
Vinyl chloride	ND	4.3	ug/kg
Xylenes (total)	ND	4.3	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	93	(61 - 130)
Toluene-d8	88	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-107:0'-2'

General Chemistry

Lot-Sample #...: A3B080116-005 Work Order #...: FHCEX Matrix.....: SO
Date Sampled...: 02/07/03 11:45 Date Received..: 02/08/03
% Moisture.....: 11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	88.8	10.0	%	MCAWW 160.3 MOD	02/10-02/11/03	3041396

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-107:14'-16'

GC/MS Volatiles

Lot-Sample #...: A3B080116-006 **Work Order #...:** FHCE01AC **Matrix.....:** SO
Date Sampled...: 02/07/03 12:40 **Date Received..:** 02/08/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3045469
Dilution Factor: 0.8
% Moisture.....: 16 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.7	ug/kg
Bromodichloromethane	ND	4.7	ug/kg
Bromoform	ND	4.7	ug/kg
Bromomethane	ND	9.5	ug/kg
Carbon tetrachloride	ND	4.7	ug/kg
Chlorobenzene	ND	4.7	ug/kg
Chlorodibromomethane	ND	4.7	ug/kg
Chloroethane	ND	9.5	ug/kg
Chloroform	ND	4.7	ug/kg
Chloromethane	ND	9.5	ug/kg
Dibromomethane	ND	4.7	ug/kg
1,2-Dichlorobenzene	ND	4.7	ug/kg
1,3-Dichlorobenzene	ND	4.7	ug/kg
1,4-Dichlorobenzene	ND	4.7	ug/kg
Dichlorodifluoromethane	ND	9.5	ug/kg
1,1-Dichloroethane	ND	4.7	ug/kg
1,2-Dichloroethane	ND	4.7	ug/kg
cis-1,2-Dichloroethene	ND	4.7	ug/kg
trans-1,2-Dichloroethene	ND	4.7	ug/kg
1,1-Dichloroethene	ND	4.7	ug/kg
1,2-Dichloropropane	ND	4.7	ug/kg
1,3-Dichloropropane	ND	4.7	ug/kg
2,2-Dichloropropane	ND	4.7	ug/kg
1,1-Dichloropropene	ND	4.7	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.7	ug/kg
Hexachlorobutadiene	ND	4.7	ug/kg
Isopropylbenzene	ND	4.7	ug/kg
Methylene chloride	ND	4.7	ug/kg
Naphthalene	ND	4.7	ug/kg
Styrene	ND	4.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg
Tetrachloroethene	ND	4.7	ug/kg
Toluene	ND	4.7	ug/kg
1,2,4-Trichloro-benzene	ND	4.7	ug/kg
1,1,1-Trichloroethane	ND	4.7	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-107:14'-16'

GC/MS Volatiles

Lot-Sample #...: A3B080116-006 **Work Order #...:** FHCE01AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.7	ug/kg
Trichloroethene	ND	4.7	ug/kg
Trichlorofluoromethane	ND	9.5	ug/kg
1,2,3-Trichloropropane	ND	4.7	ug/kg
Vinyl chloride	ND	4.7	ug/kg
Xylenes (total)	ND	4.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	78	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-107:14'-16'

General Chemistry

Lot-Sample #...: A3B080116-006 Work Order #...: FHCE0 Matrix.....: SO
Date Sampled...: 02/07/03 12:40 Date Received..: 02/08/03
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.4	10.0	%	MCAWW 160.3 MOD	02/10-02/11/03	3041396

Dilution Factor: 1

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B080116 **Work Order #...:** FHN0C1AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B140000-469

Prep Date.....: 02/12/03
Analysis Date..: 02/12/03 **Prep Batch #...:** 3045469
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B080116 **Work Order #...:** FHN0C1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	84	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B080116 **Work Order #...:** FHQ6V1AA **Matrix.....:** WATER
MB Lot-Sample #: A3B180000-169

Prep Date.....: 02/14/03
Analysis Date..: 02/14/03 **Prep Batch #...:** 3049169
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B080116 **Work Order #...:** FHQ6V1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	77	(73 - 122)
1,2-Dichloroethane-d4	75	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3B080116 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FHDMK1AA		MB Lot-Sample #:	A3B100000-396	
	ND	10.0	%	MCAWW 160.3 MOD	02/10-02/11/03	3041396
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B080116 **Work Order #...:** FHN0C1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B140000-469 FHN0C1AD-LCSD
Prep Date.....: 02/12/03 **Analysis Date..:** 02/12/03
Prep Batch #...: 3045469
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**97**	**(55 - 142)**			**SW846 8260B**
	104	**(55 - 142)**	**6.8**	**(0-27)**	**SW846 8260B**
Trichloroethene	**90**	**(70 - 131)**			**SW846 8260B**
	90	**(70 - 131)**	**0.27**	**(0-23)**	**SW846 8260B**
Benzene	**94**	**(75 - 129)**			**SW846 8260B**
	94	**(75 - 129)**	**0.31**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(71 - 130)**			**SW846 8260B**
	94	**(71 - 130)**	**2.1**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**93**	**(75 - 127)**			**SW846 8260B**
	94	**(75 - 127)**	**0.72**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(59 - 138)
	95	(59 - 138)
1,2-Dichloroethane-d4	87	(61 - 130)
	89	(61 - 130)
Toluene-d8	91	(60 - 143)
	91	(60 - 143)
4-Bromofluorobenzene	88	(47 - 158)
	90	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B080116 **Work Order #...:** FHQ6V1AC **Matrix.....:** WATER
LCS Lot-Sample#: A3B180000-169
Prep Date.....: 02/14/03 **Analysis Date..:** 02/14/03
Prep Batch #...: 3049169
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**95**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**84**	**(75 - 122)**	**SW846 8260B**
Benzene	**95**	**(80 - 116)**	**SW846 8260B**
Toluene	**101**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(73 - 122)
1,2-Dichloroethane-d4	79	(61 - 128)
Toluene-d8	87	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A3B080116	**Work Order #...:**	FHCFA1CU-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	A3B080119-004		FHCFA1CV-MSD		
Date Sampled...:	02/07/03 10:35	**Date Received..:**	02/08/03		
Prep Date.....:	02/14/03	**Analysis Date..:**	02/14/03		
Prep Batch #...:	3049169				
Dilution Factor:	20				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**87**	**(62 - 130)**			**SW846 8260B**
	95	**(62 - 130)**	**8.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**75**	**(62 - 130)**			**SW846 8260B**
	85	**(62 - 130)**	**13**	**(0-20)**	**SW846 8260B**
Benzene	**83**	**(78 - 118)**			**SW846 8260B**
	95	**(78 - 118)**	**13**	**(0-20)**	**SW846 8260B**
Toluene	**88**	**(70 - 119)**			**SW846 8260B**
	100	**(70 - 119)**	**12**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**85**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**13**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	74	(73 - 122)
	77	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
	82	(61 - 128)
Toluene-d8	86	(76 - 110)
	89	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)
	88	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B080116 **Work Order #...:** FHCME-SMP FHCME-DUP **Matrix.....:** SOLID

Date Sampled...: 02/06/03 11:07 **Date Received..:** 02/08/03

% Moisture.....: 23

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B080152-021		
	76.5	74.6	%	2.6	(0-20)	MCAWW 160.3 MOD	02/10-02/11/03	3041396

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B080116 **Work Order #...:** FHC2P-SMP FHC2P-DUP **Matrix.....:** SOLID

Date Sampled...: 01/27/03 09:25 **Date Received..:** 02/08/03

% Moisture.....: 8.8

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B100117-001		
	91.2	91.4	%	0.21	(0-20)	MCAWW 160.3 MOD	02/10-02/11/03	3041396

Dilution Factor: 1

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MacTec, Inc.	Rhonda Quinn	2/7/03	163928
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
3200 Town Point Dr. Suite 100	(770) 421-3400 / (770) 421-3486		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bob Seymour	Roger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville / GA	Fed Ex: 837652971695		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Other	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Other	Analysis: 8260B/5035	Analysis: Methane	Analysis: 8021B	Special Instructions/ Conditions of Receipt
SB-103: 0'-2'	2/6	14:45				X		4							3	1		For questions call Rhonda Quinn at (770) 421-3400
SB-103: 26'-28'	2/6	18:05				X		4							3	1		
SB-103: 46'-48'	2/6	16:15				X		4							3	1		
Trip Blank No. 4	2/7	—		X							2						2	
SB-107: 0'-2'	2/7	11:45				X		4							3	1		
SB-107: 14'-16'	2/7	12:40				X		4							3	1		

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: R. A. Luymes To Fed EX	2/7/03	15:00	1. Received By: [signature]	2/8/03	950
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3B110124

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FHD59	001	SB-107:38'-40'	02/10/03	12:00
FHD6A	002	TRIP BLANK NO.5	02/10/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3B110124

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

February 27, 2003

CASE NARRATIVE

A3B110124

The following report contains the analytical results for one solid sample and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting from the TK Louisville/GA Site. The samples were received on February 11, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 21, 2003. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at a temperature of 0.6° C.

GC/MS VOLATILES

The solid samples in this lot were preserved by freezing in water.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

EXECUTIVE SUMMARY - Detection Highlights

A3B110124

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-107:38'-40' 02/10/03 12:00 001				
Percent Solids	94.2	10.0	%	MCAWW 160.3 MOD

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:
Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048),
Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001),
New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024),
Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003),
Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190).NAVY, ARMY.
USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

ANALYTICAL METHODS SUMMARY

A3B110124

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-107:38'-40'

GC/MS Volatiles

Lot-Sample #...: A3B110124-001 **Work Order #...:** FHD591AC **Matrix.....:** SO
Date Sampled...: 02/10/03 12:00 **Date Received..:** 02/11/03
Prep Date.....: 02/15/03 **Analysis Date..:** 02/15/03
Prep Batch #...: 3050470
Dilution Factor: 0.89
% Moisture.....: 5.8 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.7	ug/kg
Bromodichloromethane	ND	4.7	ug/kg
Bromoform	ND	4.7	ug/kg
Bromomethane	ND	9.5	ug/kg
Carbon tetrachloride	ND	4.7	ug/kg
Chlorobenzene	ND	4.7	ug/kg
Chlorodibromomethane	ND	4.7	ug/kg
Chloroethane	ND	9.5	ug/kg
Chloroform	ND	4.7	ug/kg
Chloromethane	ND	9.5	ug/kg
Dibromomethane	ND	4.7	ug/kg
1,2-Dichlorobenzene	ND	4.7	ug/kg
1,3-Dichlorobenzene	ND	4.7	ug/kg
1,4-Dichlorobenzene	ND	4.7	ug/kg
Dichlorodifluoromethane	ND	9.5	ug/kg
1,1-Dichloroethane	ND	4.7	ug/kg
1,2-Dichloroethane	ND	4.7	ug/kg
cis-1,2-Dichloroethene	ND	4.7	ug/kg
trans-1,2-Dichloroethene	ND	4.7	ug/kg
1,1-Dichloroethene	ND	4.7	ug/kg
1,2-Dichloropropane	ND	4.7	ug/kg
1,3-Dichloropropane	ND	4.7	ug/kg
2,2-Dichloropropane	ND	4.7	ug/kg
1,1-Dichloropropene	ND	4.7	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.7	ug/kg
Hexachlorobutadiene	ND	4.7	ug/kg
Isopropylbenzene	ND	4.7	ug/kg
Methylene chloride	ND	4.7	ug/kg
Naphthalene	ND	4.7	ug/kg
Styrene	ND	4.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg
Tetrachloroethene	ND	4.7	ug/kg
Toluene	ND	4.7	ug/kg
1,2,4-Trichloro-benzene	ND	4.7	ug/kg
1,1,1-Trichloroethane	ND	4.7	ug/kg

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-107:38'-40'

GC/MS Volatiles

Lot-Sample #...: A3B110124-001 Work Order #...: FHD591AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.7	ug/kg
Trichloroethene	ND	4.7	ug/kg
Trichlorofluoromethane	ND	9.5	ug/kg
1,2,3-Trichloropropane	ND	4.7	ug/kg
Vinyl chloride	ND	4.7	ug/kg
Xylenes (total)	ND	4.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	89	(60 - 143)
4-Bromofluorobenzene	76	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-107:38'-40'

General Chemistry

Lot-Sample #...: A3B110124-001 Work Order #...: FHD59 Matrix.....: SO
Date Sampled...: 02/10/03 12:00 Date Received..: 02/11/03
% Moisture.....: 5.8

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	94.2	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042280

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO.5

GC/MS Volatiles

Lot-Sample #...:	A3B110124-002	**Work Order #...:**	FHD6A1AA	**Matrix.....:**	WQ
Date Sampled...:	02/10/03	**Date Received..:**	02/11/03		
Prep Date.....:	02/14/03	**Analysis Date..:**	02/14/03		
Prep Batch #...:	3049213				
Dilution Factor:	1	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	50	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO.5

GC/MS Volatiles

Lot-Sample #...: A3B110124-002 **Work Order #...:** FHD6A1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B110124 **Work Order #...:** FHRJM1AA **Matrix.....:** WATER
MB Lot-Sample #: A3B180000-213

Prep Date.....: 02/14/03
Analysis Date..: 02/14/03 **Prep Batch #...:** 3049213
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B110124 **Work Order #...:** FHRJM1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B110124 **Work Order #...:** FHWK21AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B190000-470

Prep Date.....: 02/14/03
Analysis Date..: 02/14/03 **Prep Batch #...:** 3050470
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B110124 **Work Order #...:** FHWK21AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	78	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3B110124 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FHEQW1AA		MB Lot-Sample #:	A3B110000-280	
	ND	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042280
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B110124 **Work Order #...:** FHRJM1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3B180000-213 FHRJM1AD-LCSD
Prep Date.....: 02/14/03 **Analysis Date..:** 02/14/03
Prep Batch #...: 3049213
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**89**	**(63 - 130)**			**SW846 8260B**
	88	**(63 - 130)**	**1.5**	**(0-20)**	**SW846 8260B**
Trichloroethene	**86**	**(75 - 122)**			**SW846 8260B**
	82	**(75 - 122)**	**5.2**	**(0-20)**	**SW846 8260B**
Benzene	**94**	**(80 - 116)**			**SW846 8260B**
	89	**(80 - 116)**	**5.8**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(74 - 119)**			**SW846 8260B**
	95	**(74 - 119)**	**3.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**2.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
	97	(61 - 128)
Toluene-d8	101	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	99	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B110124 **Work Order #...:** FHWK21AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B190000-470 FHWK21AD-LCSD
Prep Date.....: 02/14/03 **Analysis Date..:** 02/14/03
Prep Batch #...: 3050470
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**98**	**(55 - 142)**			**SW846 8260B**
	93	**(55 - 142)**	**4.8**	**(0-27)**	**SW846 8260B**
Trichloroethene	**94**	**(70 - 131)**			**SW846 8260B**
	88	**(70 - 131)**	**6.4**	**(0-23)**	**SW846 8260B**
Benzene	**96**	**(75 - 129)**			**SW846 8260B**
	91	**(75 - 129)**	**5.3**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(71 - 130)**			**SW846 8260B**
	95	**(71 - 130)**	**4.3**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**99**	**(75 - 127)**			**SW846 8260B**
	95	**(75 - 127)**	**4.3**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
	89	(59 - 138)
1,2-Dichloroethane-d4	90	(61 - 130)
	84	(61 - 130)
Toluene-d8	92	(60 - 143)
	91	(60 - 143)
4-Bromofluorobenzene	88	(47 - 158)
	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B110124 **Work Order #...:** FHDLT1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A3B100180-005 FHDLT1AD-MSD
Date Sampled...: 02/08/03 12:00 **Date Received..:** 02/10/03
Prep Date.....: 02/14/03 **Analysis Date..:** 02/14/03
Prep Batch #...: 3049213
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**92**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**5.8**	**(0-20)**	**SW846 8260B**
Trichloroethene	**89**	**(62 - 130)**			**SW846 8260B**
	96	**(62 - 130)**	**7.4**	**(0-20)**	**SW846 8260B**
Benzene	**96**	**(78 - 118)**			**SW846 8260B**
	101	**(78 - 118)**	**5.2**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(70 - 119)**			**SW846 8260B**
	104	**(70 - 119)**	**4.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	103	**(76 - 117)**	**5.2**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	97	(61 - 128)
Toluene-d8	99	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B110124 **Work Order #...:** FHC78-SMP FHC78-DUP **Matrix.....:** SOLID

Date Sampled...: 02/06/03 15:35 **Date Received..:** 02/10/03

% Moisture.....: 13

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B100131-001		
	86.9	86.7	%	0.24	(0-20)	MCAWW 160.3 MOD	02/11-02/12/03	3042280

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B110124 **Work Order #...:** FHD59-SMP FHD59-DUP **Matrix.....:** SO

Date Sampled...: 02/10/03 12:00 **Date Received..:** 02/11/03

% Moisture.....: 5.8

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B110124-001		
	94.2	95.3	%	1.2	(0-20)	MCAWW 160.3 MOD	02/11-02/12/03	3042280

Dilution Factor: 1

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MacTec, Inc.	Rhonda Quinn	2/10/03	163926
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	Page 1 of 1
3200 Town Point Dr. Suite 100	(770) 421-3400 / (770) 421-3486		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bob Seymour	Roger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville / GA	Fed Ex: 837652971700		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	8260B	Special Instructions/ Conditions of Receipt
SB-107: 38'-40'	2/10/03	12:00				X	4						3	1		For questions call
Trip Blank No. 5	2/10	—		X						2					2	Rhonda Quinn at
																(770) 421-3400

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: R. C. Seymour To: Fed Ex	2/10/03	15:00	1. Received By: [signature]	2/11/03	1000
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3A230159

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FGH68	001	SB-104:21'-22'	01/21/03	18:30
FGH7C	002	SB-104:40'-42'	01/21/03	18:15
FGH7H	003	SB-105:0'-2'	01/22/03	08:30
FGH7P	004	SB-105:11'-12'	01/22/03	13:15
FGH7V	005	SB-105:37'-38'	01/22/03	13:40
FGH70	006	TRIP BLANK	01/22/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3A230159

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

February 10, 2003

CASE NARRATIVE

A3A230159

The following report contains the analytical results for five solid samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting from the TK Louisville/GA Site. The samples were received on January 23, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 3, 2003. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at a temperature of 2.8° C.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048),
Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001),
New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024),
Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003),
Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY,
USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3A230159

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-104:21'-22' 01/21/03 18:30 001				
Percent Solids	86.0	10.0	%	MCAWW 160.3 MOD
SB-104:40'-42' 01/21/03 18:15 002				
Percent Solids	94.5	10.0	%	MCAWW 160.3 MOD
SB-105:0'-2' 01/22/03 08:30 003				
1,1-Dichloroethene	9.4	5.2	ug/kg	SW846 8260B
Trichloroethene	10	5.2	ug/kg	SW846 8260B
Percent Solids	84.2	10.0	%	MCAWW 160.3 MOD
SB-105:11'-12' 01/22/03 13:15 004				
1,1-Dichloroethene	31	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	43	5.0	ug/kg	SW846 8260B
Trichloroethene	53	5.0	ug/kg	SW846 8260B
Percent Solids	85.2	10.0	%	MCAWW 160.3 MOD
SB-105:37'-38' 01/22/03 13:40 005				
Percent Solids	93.2	10.0	%	MCAWW 160.3 MOD
TRIP BLANK 01/22/03 006				
Methylene chloride	1.9	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3A230159

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A3A230159

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FGH68	001	SB-104:21'-22'	01/21/03	18:30
FGH7C	002	SB-104:40'-42'	01/21/03	18:15
FGH7H	003	SB-105:0'-2'	01/22/03	08:30
FGH7P	004	SB-105:11'-12'	01/22/03	13:15
FGH7V	005	SB-105:37'-38'	01/22/03	13:40
FGH70	006	TRIP BLANK	01/22/03	

NOTE(S):

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-104:21'-22'

GC/MS Volatiles

Lot-Sample #...: A3A230159-001 **Work Order #...:** FGH681AC **Matrix.....:** SO
Date Sampled...: 01/21/03 18:30 **Date Received..:** 01/23/03
Prep Date.....: 01/30/03 **Analysis Date..:** 01/30/03
Prep Batch #...: 3031380
Dilution Factor: 0.98
% Moisture.....: 14 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Xylenes (total)	ND	5.7	ug/kg
Benzene	ND	5.7	ug/kg
Bromodichloromethane	ND	5.7	ug/kg
Bromoform	ND	5.7	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.7	ug/kg
Chlorobenzene	ND	5.7	ug/kg
Chlorodibromomethane	ND	5.7	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.7	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.7	ug/kg
1,2-Dichlorobenzene	ND	5.7	ug/kg
1,3-Dichlorobenzene	ND	5.7	ug/kg
1,4-Dichlorobenzene	ND	5.7	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.7	ug/kg
1,2-Dichloroethane	ND	5.7	ug/kg
cis-1,2-Dichloroethene	ND	5.7	ug/kg
trans-1,2-Dichloroethene	ND	5.7	ug/kg
1,1-Dichloroethene	ND	5.7	ug/kg
1,2-Dichloropropane	ND	5.7	ug/kg
1,3-Dichloropropane	ND	5.7	ug/kg
2,2-Dichloropropane	ND	5.7	ug/kg
1,1-Dichloropropene	ND	5.7	ug/kg
1,4-Dioxane	ND	290	ug/kg
Ethylbenzene	ND	5.7	ug/kg
Hexachlorobutadiene	ND	5.7	ug/kg
Isopropylbenzene	ND	5.7	ug/kg
Methylene chloride	ND	5.7	ug/kg
Naphthalene	ND	5.7	ug/kg
Styrene	ND	5.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg
Tetrachloroethene	ND	5.7	ug/kg
Toluene	ND	5.7	ug/kg
1,2,4-Trichloro-benzene	ND	5.7	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-104:21'-22'

GC/MS Volatiles

Lot-Sample #...: A3A230159-001 Work Order #...: FGH681AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	5.7	ug/kg
1,1,2-Trichloroethane	ND	5.7	ug/kg
Trichloroethene	ND	5.7	ug/kg
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.7	ug/kg
Vinyl chloride	ND	5.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
Toluene-d8	87	(60 - 143)
4-Bromofluorobenzene	94	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-104:40'-42'

GC/MS Volatiles

Lot-Sample #...: A3A230159-002 Work Order #...: FGH7C1AC Matrix.....: SO
Date Sampled...: 01/21/03 18:15 Date Received..: 01/23/03
Prep Date.....: 01/30/03 Analysis Date..: 01/30/03
Prep Batch #...: 3031380
Dilution Factor: 1.02
% Moisture.....: 5.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Xylenes (total)	ND	5.4	ug/kg
Benzene	ND	5.4	ug/kg
Bromodichloromethane	ND	5.4	ug/kg
Bromoform	ND	5.4	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.4	ug/kg
Chlorobenzene	ND	5.4	ug/kg
Chlorodibromomethane	ND	5.4	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.4	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.4	ug/kg
1,2-Dichlorobenzene	ND	5.4	ug/kg
1,3-Dichlorobenzene	ND	5.4	ug/kg
1,4-Dichlorobenzene	ND	5.4	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.4	ug/kg
1,2-Dichloroethane	ND	5.4	ug/kg
cis-1,2-Dichloroethene	ND	5.4	ug/kg
trans-1,2-Dichloroethene	ND	5.4	ug/kg
1,1-Dichloroethene	ND	5.4	ug/kg
1,2-Dichloropropane	ND	5.4	ug/kg
1,3-Dichloropropane	ND	5.4	ug/kg
2,2-Dichloropropane	ND	5.4	ug/kg
1,1-Dichloropropene	ND	5.4	ug/kg
1,4-Dioxane	ND	270	ug/kg
Ethylbenzene	ND	5.4	ug/kg
Hexachlorobutadiene	ND	5.4	ug/kg
Isopropylbenzene	ND	5.4	ug/kg
Methylene chloride	ND	5.4	ug/kg
Naphthalene	ND	5.4	ug/kg
Styrene	ND	5.4	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.4	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg
Tetrachloroethene	ND	5.4	ug/kg
Toluene	ND	5.4	ug/kg
1,2,4-Trichloro-benzene	ND	5.4	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-104:40'-42'

GC/MS Volatiles

Lot-Sample #...: A3A230159-002 Work Order #...: FGH7C1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	5.4	ug/kg
1,1,2-Trichloroethane	ND	5.4	ug/kg
Trichloroethene	ND	5.4	ug/kg
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.4	ug/kg
Vinyl chloride	ND	5.4	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	96	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-105:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A230159-003 **Work Order #...:** FGH7H1AC **Matrix.....:** SO
Date Sampled...: 01/22/03 08:30 **Date Received..:** 01/23/03
Prep Date.....: 01/30/03 **Analysis Date..:** 01/30/03
Prep Batch #...: 3031380
Dilution Factor: 0.88
% Moisture.....: 16 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Xylenes (total)	ND	5.2	ug/kg
Benzene	ND	5.2	ug/kg
Bromodichloromethane	ND	5.2	ug/kg
Bromoform	ND	5.2	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.2	ug/kg
Chlorobenzene	ND	5.2	ug/kg
Chlorodibromomethane	ND	5.2	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.2	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.2	ug/kg
1,2-Dichlorobenzene	ND	5.2	ug/kg
1,3-Dichlorobenzene	ND	5.2	ug/kg
1,4-Dichlorobenzene	ND	5.2	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.2	ug/kg
1,2-Dichloroethane	ND	5.2	ug/kg
cis-1,2-Dichloroethene	ND	5.2	ug/kg
trans-1,2-Dichloroethene	ND	5.2	ug/kg
1,1-Dichloroethene	**9.4**	**5.2**	**ug/kg**
1,2-Dichloropropane	ND	5.2	ug/kg
1,3-Dichloropropane	ND	5.2	ug/kg
2,2-Dichloropropane	ND	5.2	ug/kg
1,1-Dichloropropene	ND	5.2	ug/kg
1,4-Dioxane	ND	260	ug/kg
Ethylbenzene	ND	5.2	ug/kg
Hexachlorobutadiene	ND	5.2	ug/kg
Isopropylbenzene	ND	5.2	ug/kg
Methylene chloride	ND	5.2	ug/kg
Naphthalene	ND	5.2	ug/kg
Styrene	ND	5.2	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.2	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg
Tetrachloroethene	ND	5.2	ug/kg
Toluene	ND	5.2	ug/kg
1,2,4-Trichloro-benzene	ND	5.2	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-105:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A230159-003 Work Order #...: FGH7H1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	5.2	ug/kg
1,1,2-Trichloroethane	ND	5.2	ug/kg
Trichloroethene	**10**	**5.2**	**ug/kg**
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.2	ug/kg
Vinyl chloride	ND	5.2	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	88	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-105:11'-12'

GC/MS Volatiles

Lot-Sample #...: A3A230159-004 **Work Order #...:** FGH7P1AC **Matrix.....:** SO
Date Sampled...: 01/22/03 13:15 **Date Received..:** 01/23/03
Prep Date.....: 01/30/03 **Analysis Date..:** 01/30/03
Prep Batch #...: 3031380
Dilution Factor: 0.85
% Moisture.....: 15 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Xylenes (total)	ND	5.0	ug/kg
Benzene	ND	5.0	ug/kg
Bromodichloromethane	ND	5.0	ug/kg
Bromoform	ND	5.0	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.0	ug/kg
Chlorobenzene	ND	5.0	ug/kg
Chlorodibromomethane	ND	5.0	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.0	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.0	ug/kg
1,2-Dichlorobenzene	ND	5.0	ug/kg
1,3-Dichlorobenzene	ND	5.0	ug/kg
1,4-Dichlorobenzene	ND	5.0	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.0	ug/kg
1,2-Dichloroethane	ND	5.0	ug/kg
cis-1,2-Dichloroethene	ND	5.0	ug/kg
trans-1,2-Dichloroethene	ND	5.0	ug/kg
1,1-Dichloroethene	**31**	**5.0**	**ug/kg**
1,2-Dichloropropane	ND	5.0	ug/kg
1,3-Dichloropropane	ND	5.0	ug/kg
2,2-Dichloropropane	ND	5.0	ug/kg
1,1-Dichloropropene	ND	5.0	ug/kg
1,4-Dioxane	ND	250	ug/kg
Ethylbenzene	ND	5.0	ug/kg
Hexachlorobutadiene	ND	5.0	ug/kg
Isopropylbenzene	ND	5.0	ug/kg
Methylene chloride	ND	5.0	ug/kg
Naphthalene	ND	5.0	ug/kg
Styrene	ND	5.0	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg
Tetrachloroethene	ND	5.0	ug/kg
Toluene	ND	5.0	ug/kg
1,2,4-Trichloro-benzene	ND	5.0	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-105:11'-12'

GC/MS Volatiles

Lot-Sample #...: A3A230159-004 Work Order #...: FGH7P1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**43**	**5.0**	**ug/kg**
1,1,2-Trichloroethane	ND	5.0	ug/kg
Trichloroethene	**53**	**5.0**	**ug/kg**
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.0	ug/kg
Vinyl chloride	ND	5.0	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	89	(60 - 143)
4-Bromofluorobenzene	94	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-105:37'-38'

GC/MS Volatiles

Lot-Sample #...: A3A230159-005 **Work Order #...:** FGH7V1AC **Matrix.....:** SO
Date Sampled...: 01/22/03 13:40 **Date Received..:** 01/23/03
Prep Date.....: 01/30/03 **Analysis Date..:** 01/30/03
Prep Batch #...: 3031380
Dilution Factor: 1.09
% Moisture.....: 6.8 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Xylenes (total)	ND	5.8	ug/kg
Benzene	ND	5.8	ug/kg
Bromodichloromethane	ND	5.8	ug/kg
Bromoform	ND	5.8	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	5.8	ug/kg
Chlorobenzene	ND	5.8	ug/kg
Chlorodibromomethane	ND	5.8	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	5.8	ug/kg
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	5.8	ug/kg
1,2-Dichlorobenzene	ND	5.8	ug/kg
1,3-Dichlorobenzene	ND	5.8	ug/kg
1,4-Dichlorobenzene	ND	5.8	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.8	ug/kg
1,2-Dichloroethane	ND	5.8	ug/kg
cis-1,2-Dichloroethene	ND	5.8	ug/kg
trans-1,2-Dichloroethene	ND	5.8	ug/kg
1,1-Dichloroethene	ND	5.8	ug/kg
1,2-Dichloropropane	ND	5.8	ug/kg
1,3-Dichloropropane	ND	5.8	ug/kg
2,2-Dichloropropane	ND	5.8	ug/kg
1,1-Dichloropropene	ND	5.8	ug/kg
1,4-Dioxane	ND	290	ug/kg
Ethylbenzene	ND	5.8	ug/kg
Hexachlorobutadiene	ND	5.8	ug/kg
Isopropylbenzene	ND	5.8	ug/kg
Methylene chloride	ND	5.8	ug/kg
Naphthalene	ND	5.8	ug/kg
Styrene	ND	5.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg
Tetrachloroethene	ND	5.8	ug/kg
Toluene	ND	5.8	ug/kg
1,2,4-Trichloro-benzene	ND	5.8	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-105:37'-38'

GC/MS Volatiles

Lot-Sample #...: A3A230159-005 **Work Order #...:** FGH7V1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	5.8	ug/kg
1,1,2-Trichloroethane	ND	5.8	ug/kg
Trichloroethene	ND	5.8	ug/kg
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.8	ug/kg
Vinyl chloride	ND	5.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	89	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3A230159-006 Work Order #...: FGH701AA Matrix.....: WQ
Date Sampled...: 01/22/03 Date Received..: 01/23/03
Prep Date.....: 01/30/03 Analysis Date..: 01/30/03
Prep Batch #...: 3033100
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**1.9**	**1.0**	**ug/L**
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3A230159-006 **Work Order #...:** FGH701AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(73 - 122)
1,2-Dichloroethane-d4	79	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	81	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A230159 **Work Order #...:** FG0Q41AA **Matrix.....:** SOLID
MB Lot-Sample #: A3A310000-380

Prep Date.....: 01/30/03
Analysis Date..: 01/30/03 **Prep Batch #...:** 3031380
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A230159 **Work Order #...:** FG0Q41AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(59 - 138)
1,2-Dichloroethane-d4	85	(61 - 130)
Toluene-d8	87	(60 - 143)
4-Bromofluorobenzene	95	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A230159 **Work Order #...:** FG2CC1AA **Matrix.....:** WATER
MB Lot-Sample #: A3B020000-100

Prep Date.....: 01/30/03
Analysis Date..: 01/30/03 **Prep Batch #...:** 3033100
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A230159 **Work Order #...:** FG2CC1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(73 - 122)
1,2-Dichloroethane-d4	82	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A230159 **Work Order #...:** FG0Q41AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3A310000-380 FG0Q41AD-LCSD
Prep Date.....: 01/30/03 **Analysis Date..:** 01/30/03
Prep Batch #...: 3031380
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**110**	**(55 - 142)**			**SW846 8260B**
	92	**(55 - 142)**	**18**	**(0-27)**	**SW846 8260B**
Trichloroethene	**92**	**(70 - 131)**			**SW846 8260B**
	90	**(70 - 131)**	**2.3**	**(0-23)**	**SW846 8260B**
Benzene	**101**	**(75 - 129)**			**SW846 8260B**
	98	**(75 - 129)**	**2.8**	**(0-20)**	**SW846 8260B**
Toluene	**91**	**(71 - 130)**			**SW846 8260B**
	86	**(71 - 130)**	**5.4**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**97**	**(75 - 127)**			**SW846 8260B**
	93	**(75 - 127)**	**3.8**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(59 - 138)
	88	(59 - 138)
1,2-Dichloroethane-d4	82	(61 - 130)
	83	(61 - 130)
Toluene-d8	88	(60 - 143)
	89	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)
	98	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A230159 Work Order #...: FG2CC1AC Matrix.....: WATER
LCS Lot-Sample#: A3B020000-100
Prep Date.....: 01/30/03 Analysis Date..: 01/30/03
Prep Batch #...: 3033100
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**107**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**89**	**(75 - 122)**	**SW846 8260B**
Benzene	**106**	**(80 - 116)**	**SW846 8260B**
Toluene	**104**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
Toluene-d8	87	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A230159 **Work Order #...:** FGH7C1AD-MS **Matrix.....:** SO
MS Lot-Sample #: A3A230159-002 FGH7C1AE-MSD
Date Sampled...: 01/21/03 18:15 **Date Received..:** 01/23/03
Prep Date.....: 01/30/03 **Analysis Date..:** 01/30/03
Prep Batch #...: 3031380
Dilution Factor: 0.98

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**115**	**(43 - 147)**			**SW846 8260B**
	105	**(43 - 147)**	**6.5**	**(0-27)**	**SW846 8260B**
Trichloroethene	**89**	**(46 - 143)**			**SW846 8260B**
	83	**(46 - 143)**	**5.7**	**(0-23)**	**SW846 8260B**
Benzene	**98**	**(55 - 138)**			**SW846 8260B**
	92	**(55 - 138)**	**4.2**	**(0-20)**	**SW846 8260B**
Toluene	**89**	**(46 - 147)**			**SW846 8260B**
	79	**(46 - 147)**	**9.3**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**93**	**(49 - 139)**			**SW846 8260B**
	83	**(49 - 139)**	**10**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(59 - 138)
	90	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
	86	(61 - 130)
Toluene-d8	91	(60 - 143)
	91	(60 - 143)
4-Bromofluorobenzene	96	(47 - 158)
	96	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A230159 **Work Order #...:** FGK4M1CD-MS **Matrix.....:** WATER
MS Lot-Sample #: A3A240132-004 FGK4M1CE-MSD
Date Sampled...: 01/23/03 **Date Received..:** 01/24/03
Prep Date.....: 01/30/03 **Analysis Date..:** 01/30/03
Prep Batch #...: 3033100
Dilution Factor: 100

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**106**	**(62 - 130)**			**SW846 8260B**
	107	**(62 - 130)**	**0.96**	**(0-20)**	**SW846 8260B**
Trichloroethene	**90**	**(62 - 130)**			**SW846 8260B**
	86	**(62 - 130)**	**5.2**	**(0-20)**	**SW846 8260B**
Benzene	**106**	**(78 - 118)**			**SW846 8260B**
	105	**(78 - 118)**	**0.24**	**(0-20)**	**SW846 8260B**
Toluene	**109**	**(70 - 119)**			**SW846 8260B**
	106	**(70 - 119)**	**1.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**0.93**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(73 - 122)
	86	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
	86	(61 - 128)
Toluene-d8	85	(76 - 110)
	86	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)
	86	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

[redacted]

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

28

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MacTec	Rhonda Quinn	1/22/03	167996
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr.	(770) 421-3400 / (770) 421-3486		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bob Seymour	Roger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville / GA	Fed Ex: 835321295053		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: 8260B/5035	Moisture	VOA vial	Special Instructions/ Conditions of Receipt
SB104: 21'-22'	1/21/03	18:30				X	4						3	1		
SB104: 40'-42'	1/21	18:15				X	4						3	1		
SB-104: MS/MSD: 40'-42'	1/21	18:15				X	7						6	1		
SB-105: 0'-2'	1/22	08:30				X	4						3	1		
SB-105: 11'-12'	1/22	13:15				X	4						3	1		
SB-105: 37'-38'	1/22	13:40				X	4						3	1		
Trip Blank	-	-		X						Z					Z	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: R. A. Seymour To Fed Ex	1/22/03	15:00	1. Received By:	1/23/03	940
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report: CANARY - Stays with the Sample: PINK - Field Copy

SAMPLE SUMMARY

A3A250143

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FGNA0	001	SB-106:0'-2'	01/23/03	14:15
FGNA3	002	SB-106:29'-30'	01/23/03	17:20
FGNA5	003	SB-106:42'-43'	01/23/03	17:00
FGNA7	004	SB-108:0'-2'	01/24/03	09:15
FGNA9	005	SB-108:29'-30'	01/24/03	16:30
FGNCC	006	SB-108:45'-46'	01/24/03	17:15
FGNCD	007	TRIP BLANK	01/24/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3A250143

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

February 13, 2003

CASE NARRATIVE

A3A250143

The following report contains the analytical results for six solid samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting from the TK Louisville/GA Site. The samples were received on January 25, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 5, 2003. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at a temperature of 1.2° C.

GC/MS VOLATILES

The solid samples in this lot were preserved by freezing in water.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048),
Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001),
New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024),
Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003),
Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY,
USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3A250143

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-106:0'-2' 01/23/03 14:15 001				
Percent Solids	87.3	10.0	%	MCAWW 160.3 MOD
SB-106:29'-30' 01/23/03 17:20 002				
Percent Solids	89.3	10.0	%	MCAWW 160.3 MOD
SB-106:42'-43' 01/23/03 17:00 003				
Percent Solids	93.4	10.0	%	MCAWW 160.3 MOD
SB-108:0'-2' 01/24/03 09:15 004				
Percent Solids	86.0	10.0	%	MCAWW 160.3 MOD
SB-108:29'-30' 01/24/03 16:30 005				
Trichloroethene	9.0	4.8	ug/kg	SW846 8260B
Percent Solids	92.7	10.0	%	MCAWW 160.3 MOD
SB-108:45'-46' 01/24/03 17:15 006				
Trichloroethene	7.0	5.8	ug/kg	SW846 8260B
Percent Solids	94.5	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A3A250143

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-106:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A250143-001 Work Order #...: FGNA01AC Matrix.....: SO
Date Sampled...: 01/23/03 14:15 Date Received..: 01/25/03
Prep Date.....: 02/04/03 Analysis Date..: 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 0.83
% Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.5	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.5	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.5	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.5	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	ND	4.8	ug/kg
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichloro-benzene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-106:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A250143-001 Work Order #...: FGNA01AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	ND	4.8	ug/kg
Trichlorofluoromethane	ND	9.5	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(59 - 138)
1,2-Dichloroethane-d4	97	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	76	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-106:29'-30'

GC/MS Volatiles

Lot-Sample #...: A3A250143-002 Work Order #...: FGNA31AC Matrix.....: SO
Date Sampled...: 01/23/03 17:20 Date Received..: 01/25/03
Prep Date.....: 02/04/03 Analysis Date..: 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 0.82
% Moisture.....: 11 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.6	ug/kg
Bromodichloromethane	ND	4.6	ug/kg
Bromoform	ND	4.6	ug/kg
Bromomethane	ND	9.2	ug/kg
Carbon tetrachloride	ND	4.6	ug/kg
Chlorobenzene	ND	4.6	ug/kg
Chlorodibromomethane	ND	4.6	ug/kg
Chloroethane	ND	9.2	ug/kg
Chloroform	ND	4.6	ug/kg
Chloromethane	ND	9.2	ug/kg
Dibromomethane	ND	4.6	ug/kg
1,2-Dichlorobenzene	ND	4.6	ug/kg
1,3-Dichlorobenzene	ND	4.6	ug/kg
1,4-Dichlorobenzene	ND	4.6	ug/kg
Dichlorodifluoromethane	ND	9.2	ug/kg
1,1-Dichloroethane	ND	4.6	ug/kg
1,2-Dichloroethane	ND	4.6	ug/kg
cis-1,2-Dichloroethene	ND	4.6	ug/kg
trans-1,2-Dichloroethene	ND	4.6	ug/kg
1,1-Dichloroethene	ND	4.6	ug/kg
1,2-Dichloropropane	ND	4.6	ug/kg
1,3-Dichloropropane	ND	4.6	ug/kg
2,2-Dichloropropane	ND	4.6	ug/kg
1,1-Dichloropropene	ND	4.6	ug/kg
1,4-Dioxane	ND	230	ug/kg
Ethylbenzene	ND	4.6	ug/kg
Hexachlorobutadiene	ND	4.6	ug/kg
Isopropylbenzene	ND	4.6	ug/kg
Methylene chloride	ND	4.6	ug/kg
Naphthalene	ND	4.6	ug/kg
Styrene	ND	4.6	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.6	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.6	ug/kg
Tetrachloroethene	ND	4.6	ug/kg
Toluene	ND	4.6	ug/kg
1,2,4-Trichloro-benzene	ND	4.6	ug/kg
1,1,1-Trichloroethane	ND	4.6	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-106:29'-30'

GC/MS Volatiles

Lot-Sample #...: A3A250143-002 Work Order #...: FGNA31AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.6	ug/kg
Trichloroethene	ND	4.6	ug/kg
Trichlorofluoromethane	ND	9.2	ug/kg
1,2,3-Trichloropropane	ND	4.6	ug/kg
Vinyl chloride	ND	4.6	ug/kg
Xylenes (total)	ND	4.6	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	77	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-106:42'-43'

GC/MS Volatiles

Lot-Sample #...: A3A250143-003 **Work Order #...:** FGNA51AC **Matrix.....:** SO
Date Sampled...: 01/23/03 17:00 **Date Received..:** 01/25/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 1
% Moisture.....: 6.6 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.4	ug/kg
Bromodichloromethane	ND	5.4	ug/kg
Bromoform	ND	5.4	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.4	ug/kg
Chlorobenzene	ND	5.4	ug/kg
Chlorodibromomethane	ND	5.4	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.4	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.4	ug/kg
1,2-Dichlorobenzene	ND	5.4	ug/kg
1,3-Dichlorobenzene	ND	5.4	ug/kg
1,4-Dichlorobenzene	ND	5.4	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.4	ug/kg
1,2-Dichloroethane	ND	5.4	ug/kg
cis-1,2-Dichloroethene	ND	5.4	ug/kg
trans-1,2-Dichloroethene	ND	5.4	ug/kg
1,1-Dichloroethene	ND	5.4	ug/kg
1,2-Dichloropropane	ND	5.4	ug/kg
1,3-Dichloropropane	ND	5.4	ug/kg
2,2-Dichloropropane	ND	5.4	ug/kg
1,1-Dichloropropene	ND	5.4	ug/kg
1,4-Dioxane	ND	270	ug/kg
Ethylbenzene	ND	5.4	ug/kg
Hexachlorobutadiene	ND	5.4	ug/kg
Isopropylbenzene	ND	5.4	ug/kg
Methylene chloride	ND	5.4	ug/kg
Naphthalene	ND	5.4	ug/kg
Styrene	ND	5.4	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.4	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg
Tetrachloroethene	ND	5.4	ug/kg
Toluene	ND	5.4	ug/kg
1,2,4-Trichlorobenzene	ND	5.4	ug/kg
1,1,1-Trichloroethane	ND	5.4	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-106:42'-43'

GC/MS Volatiles

Lot-Sample #...: A3A250143-003 Work Order #...: FGNA51AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.4	ug/kg
Trichloroethene	ND	5.4	ug/kg
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.4	ug/kg
Vinyl chloride	ND	5.4	ug/kg
Xylenes (total)	ND	5.4	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	93	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	77	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-108:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A250143-004 **Work Order #...:** FGNA71AC **Matrix.....:** SO
Date Sampled...: 01/24/03 09:15 **Date Received..:** 01/25/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 0.82
% Moisture.....: 14 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.5	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.5	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.5	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.5	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	ND	4.8	ug/kg
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichlorobenzene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-108:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A250143-004 **Work Order #...:** FGNA71AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	ND	4.8	ug/kg
Trichlorofluoromethane	ND	9.5	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	89	(60 - 143)
4-Bromofluorobenzene	75	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-108:29'-30'

GC/MS Volatiles

Lot-Sample #...: A3A250143-005 Work Order #...: FGNA91AC Matrix.....: SO
Date Sampled...: 01/24/03 16:30 Date Received..: 01/25/03
Prep Date.....: 02/04/03 Analysis Date..: 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 0.89
% Moisture.....: 7.3 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.6	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.6	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.6	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.6	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	ND	4.8	ug/kg
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichloro-benzene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-108:29'-30'

GC/MS Volatiles

Lot-Sample #...: A3A250143-005 Work Order #...: FGNA91AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	**9.0**	**4.8**	**ug/kg**
Trichlorofluoromethane	ND	9.6	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-108:45'-46'

GC/MS Volatiles

Lot-Sample #...: A3A250143-006 **Work Order #...:** FGNCC1AC **Matrix.....:** SO
Date Sampled...: 01/24/03 17:15 **Date Received..:** 01/25/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 1.09
% Moisture.....: 5.5 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.8	ug/kg
Bromodichloromethane	ND	5.8	ug/kg
Bromoform	ND	5.8	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	5.8	ug/kg
Chlorobenzene	ND	5.8	ug/kg
Chlorodibromomethane	ND	5.8	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	5.8	ug/kg
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	5.8	ug/kg
1,2-Dichlorobenzene	ND	5.8	ug/kg
1,3-Dichlorobenzene	ND	5.8	ug/kg
1,4-Dichlorobenzene	ND	5.8	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.8	ug/kg
1,2-Dichloroethane	ND	5.8	ug/kg
cis-1,2-Dichloroethene	ND	5.8	ug/kg
trans-1,2-Dichloroethene	ND	5.8	ug/kg
1,1-Dichloroethene	ND	5.8	ug/kg
1,2-Dichloropropane	ND	5.8	ug/kg
1,3-Dichloropropane	ND	5.8	ug/kg
2,2-Dichloropropane	ND	5.8	ug/kg
1,1-Dichloropropene	ND	5.8	ug/kg
1,4-Dioxane	ND	290	ug/kg
Ethylbenzene	ND	5.8	ug/kg
Hexachlorobutadiene	ND	5.8	ug/kg
Isopropylbenzene	ND	5.8	ug/kg
Methylene chloride	ND	5.8	ug/kg
Naphthalene	ND	5.8	ug/kg
Styrene	ND	5.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg
Tetrachloroethene	ND	5.8	ug/kg
Toluene	ND	5.8	ug/kg
1,2,4-Trichloro-benzene	ND	5.8	ug/kg
1,1,1-Trichloroethane	ND	5.8	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-108:45'-46'

GC/MS Volatiles

Lot-Sample #...: A3A250143-006 **Work Order #...:** FGNCC1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.8	ug/kg
Trichloroethene	**7.0**	**5.8**	**ug/kg**
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.8	ug/kg
Vinyl chloride	ND	5.8	ug/kg
Xylenes (total)	ND	5.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(59 - 138)
1,2-Dichloroethane-d4	96	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	77	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3A250143-007 Work Order #...: FGNCD1AA Matrix.....: WQ
Date Sampled...: 01/24/03 Date Received..: 01/25/03
Prep Date.....: 02/03/03 Analysis Date..: 02/03/03
Prep Batch #...: 3035223
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3A250143-007 Work Order #...: FGNCD1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A250143 **Work Order #...:** FG33P1AA **Matrix.....:** WATER
MB Lot-Sample #: A3B040000-223

Prep Date.....: 02/03/03
Analysis Date..: 02/03/03 **Prep Batch #...:** 3035223
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A250143 **Work Order #...:** FG33P1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A250143 **Work Order #...:** FG4W01AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B040000-376

Prep Date.....: 02/03/03
Analysis Date..: 02/03/03 **Prep Batch #...:** 3035376
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A250143 **Work Order #...:** FG4W01AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A250143 **Work Order #...:** FG33P1AC **Matrix.....:** WATER
LCS Lot-Sample#: A3B040000-223
Prep Date.....: 02/03/03 **Analysis Date..:** 02/03/03
Prep Batch #...: 3035223
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**88**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**85**	**(75 - 122)**	**SW846 8260B**
Benzene	**93**	**(80 - 116)**	**SW846 8260B**
Toluene	**95**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**94**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A250143 **Work Order #...:** FG4W01AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B040000-376 FG4W01AD-LCSD
Prep Date.....: 02/03/03 **Analysis Date..:** 02/03/03
Prep Batch #...: 3035376
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**98**	**(55 - 142)**			**SW846 8260B**
	97	**(55 - 142)**	**0.76**	**(0-27)**	**SW846 8260B**
Trichloroethene	**96**	**(70 - 131)**			**SW846 8260B**
	94	**(70 - 131)**	**1.4**	**(0-23)**	**SW846 8260B**
Benzene	**97**	**(75 - 129)**			**SW846 8260B**
	94	**(75 - 129)**	**3.0**	**(0-20)**	**SW846 8260B**
Toluene	**97**	**(71 - 130)**			**SW846 8260B**
	95	**(71 - 130)**	**2.4**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**98**	**(75 - 127)**			**SW846 8260B**
	96	**(75 - 127)**	**2.1**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
	94	(59 - 138)
1,2-Dichloroethane-d4	96	(61 - 130)
	96	(61 - 130)
Toluene-d8	93	(60 - 143)
	91	(60 - 143)
4-Bromofluorobenzene	89	(47 - 158)
	88	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A250143 **Work Order #...:** FGNDT1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A3A250149-001 FGNDT1AD-MSD
Date Sampled...: 01/24/03 11:15 **Date Received..:** 01/25/03
Prep Date.....: 02/03/03 **Analysis Date..:** 02/03/03
Prep Batch #...: 3035223
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**91**	**(62 - 130)**			**SW846 8260B**
	95	**(62 - 130)**	**4.7**	**(0-20)**	**SW846 8260B**
Trichloroethene	**88**	**(62 - 130)**			**SW846 8260B**
	84	**(62 - 130)**	**3.7**	**(0-20)**	**SW846 8260B**
Benzene	**97**	**(78 - 118)**			**SW846 8260B**
	92	**(78 - 118)**	**4.9**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(70 - 119)**			**SW846 8260B**
	94	**(70 - 119)**	**5.5**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	94	**(76 - 117)**	**3.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
	96	(61 - 128)
Toluene-d8	100	(76 - 110)
	100	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	101	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A250143 **Work Order #...:** FGRT81AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: A3A290102-011 FGRT81AG-MSD
Date Sampled...: 01/27/03 10:15 **Date Received..:** 01/29/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 1 **% Moisture.....:** 12

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**87**	**(43 - 147)**			**SW846 8260B**
	94	**(43 - 147)**	**7.0**	**(0-27)**	**SW846 8260B**
Trichloroethene	**74**	**(46 - 143)**			**SW846 8260B**
	71	**(46 - 143)**	**3.9**	**(0-23)**	**SW846 8260B**
Benzene	**83**	**(55 - 138)**			**SW846 8260B**
	81	**(55 - 138)**	**1.9**	**(0-20)**	**SW846 8260B**
Toluene	**119**	**(46 - 147)**			**SW846 8260B**
	120	**(46 - 147)**	**0.73**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**78**	**(49 - 139)**			**SW846 8260B**
	72	**(49 - 139)**	**8.1**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(59 - 138)
	106	(59 - 138)
1,2-Dichloroethane-d4	104	(61 - 130)
	98	(61 - 130)
Toluene-d8	120	(60 - 143)
	119	(60 - 143)
4-Bromofluorobenzene	56	(47 - 158)
	54	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

Chain of Custody Record

SEVERN TRENT SERVICES **Severn Trent Laboratories, Inc.**

STL-4124 (0700)

Client: MacTec	Project Manager: Rhonda Quinn	Date: 1/24/03	Chain of Custody Number: 027028
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact: Bob Seymour	Lab Contact:	
Project Name and Location (State): TK Louisville / GA	Carrier/Waybill Number: Fed Ex No: 835321295123		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	8260B	Special Instructions/ Conditions of Receipt
SB-106: 0'-2'	1/23/03	14:15				X	4						3	1		For questions
SB-106: 29'-30'	1/23	17:20				X	4						3	1		Call Rhonda Quinn
SB-106: 42'-43'	1/23	17:00				X	4						3	1		at (770) 421-3400
SB-108: 0'-2'	1/24	09:15				X	4						3	1		
SB-108: 29'-30'	1/24	16:30				X	4						3	1		
SB-108: 45'-46'	1/24	17:15				X	4						3	1		
Trip Blank	1/24	—		X						2					2	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: R. A. Seymour To FedEx.	Date: 1/24/03	Time: 16:30	1. Received By: [signature]	Date: 1/25/03	Time: 1120
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report. PINK - Field Copy

STL North Canton

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SAMPLE SUMMARY

A3B120151

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FHGD0	001	SB-110:0'-2'	02/10/03	16:45
FHGD3	002	SB-110:4'-6'	02/10/03	18:00
FHGD4	003	SB-110:32'-34'	02/10/03	17:45
FHGD6	004	TRIP BLANK NO. 6	02/11/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3B120151

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth

Roger K. Toth
Project Manager

February 27, 2003

CASE NARRATIVE

A3B120151

The following report contains the analytical results for three solid samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting from the TK Louisville/GA Site. The samples were received on February 12, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 22, 2003. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at a temperature of 0.1° C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3B120151

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-110:0'-2' 02/10/03 16:45 001				
Percent Solids	85.1	10.0	%	MCAWW 160.3 MOD
SB-110:4'-6' 02/10/03 18:00 002				
Percent Solids	84.2	10.0	%	MCAWW 160.3 MOD
SB-110:32'-34' 02/10/03 17:45 003				
Percent Solids	80.3	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A3B120151

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-110:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B120151-001 Work Order #...: FHGD01AC Matrix.....: SO
Date Sampled...: 02/10/03 16:45 Date Received..: 02/12/03
Prep Date.....: 02/16/03 Analysis Date..: 02/16/03
Prep Batch #...: 3049345
Dilution Factor: 0.78
% Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.6	ug/kg
Bromodichloromethane	ND	4.6	ug/kg
Bromoform	ND	4.6	ug/kg
Bromomethane	ND	9.2	ug/kg
Carbon tetrachloride	ND	4.6	ug/kg
Chlorobenzene	ND	4.6	ug/kg
Chlorodibromomethane	ND	4.6	ug/kg
Chloroethane	ND	9.2	ug/kg
Chloroform	ND	4.6	ug/kg
Chloromethane	ND	9.2	ug/kg
Dibromomethane	ND	4.6	ug/kg
1,2-Dichlorobenzene	ND	4.6	ug/kg
1,3-Dichlorobenzene	ND	4.6	ug/kg
1,4-Dichlorobenzene	ND	4.6	ug/kg
Dichlorodifluoromethane	ND	9.2	ug/kg
1,1-Dichloroethane	ND	4.6	ug/kg
1,2-Dichloroethane	ND	4.6	ug/kg
cis-1,2-Dichloroethene	ND	4.6	ug/kg
trans-1,2-Dichloroethene	ND	4.6	ug/kg
1,1-Dichloroethene	ND	4.6	ug/kg
1,2-Dichloropropane	ND	4.6	ug/kg
1,3-Dichloropropane	ND	4.6	ug/kg
2,2-Dichloropropane	ND	4.6	ug/kg
1,1-Dichloropropene	ND	4.6	ug/kg
1,4-Dioxane	ND	230	ug/kg
Ethylbenzene	ND	4.6	ug/kg
Hexachlorobutadiene	ND	4.6	ug/kg
Isopropylbenzene	ND	4.6	ug/kg
Methylene chloride	ND	4.6	ug/kg
Naphthalene	ND	4.6	ug/kg
Styrene	ND	4.6	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.6	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.6	ug/kg
Tetrachloroethene	ND	4.6	ug/kg
Toluene	ND	4.6	ug/kg
1,2,4-Trichloro-benzene	ND	4.6	ug/kg
1,1,1-Trichloroethane	ND	4.6	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-110:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B120151-001 Work Order #...: FHGD01AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.6	ug/kg
Trichloroethene	ND	4.6	ug/kg
Trichlorofluoromethane	ND	9.2	ug/kg
1,2,3-Trichloropropane	ND	4.6	ug/kg
Vinyl chloride	ND	4.6	ug/kg
Xylenes (total)	ND	4.6	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	85	(60 - 143)
4-Bromofluorobenzene	99	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-110:0'-2'

General Chemistry

Lot-Sample #...: A3B120151-001 Work Order #...: FHGD0 Matrix.....: SO
Date Sampled...: 02/10/03 16:45 Date Received..: 02/12/03
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.1	10.0	%	MCAWW 160.3 MOD	02/12-02/13/03	3043479

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-110:4'-6'

GC/MS Volatiles

Lot-Sample #...: A3B120151-002 Work Order #...: FHGD31AC Matrix.....: SO
Date Sampled...: 02/10/03 18:00 Date Received..: 02/12/03
Prep Date.....: 02/16/03 Analysis Date..: 02/16/03
Prep Batch #...: 3049345
Dilution Factor: 0.81
% Moisture.....: 16 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.6	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.6	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.6	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.6	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	ND	4.8	ug/kg
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichloro-benzene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-110:4'-6'

GC/MS Volatiles

Lot-Sample #...: A3B120151-002 Work Order #...: FHGD31AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	ND	4.8	ug/kg
Trichlorofluoromethane	ND	9.6	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	85	(60 - 143)
4-Bromofluorobenzene	99	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-110:4'-6'

General Chemistry

Lot-Sample #...: A3B120151-002 **Work Order #...:** FHGD3 **Matrix.....:** SO
Date Sampled...: 02/10/03 18:00 **Date Received..:** 02/12/03
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.2	10.0	%	MCAWW 160.3 MOD	02/12-02/13/03	3043479

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-110:32'-34'

GC/MS Volatiles

Lot-Sample #...: A3B120151-003 **Work Order #...:** FHGD41AC **Matrix.....:** SO
Date Sampled...: 02/10/03 17:45 **Date Received..:** 02/12/03
Prep Date.....: 02/19/03 **Analysis Date..:** 02/19/03
Prep Batch #...: 3050472
Dilution Factor: 0.83
% Moisture.....: 20 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.2	ug/kg
Bromodichloromethane	ND	5.2	ug/kg
Bromoform	ND	5.2	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.2	ug/kg
Chlorobenzene	ND	5.2	ug/kg
Chlorodibromomethane	ND	5.2	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.2	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.2	ug/kg
1,2-Dichlorobenzene	ND	5.2	ug/kg
1,3-Dichlorobenzene	ND	5.2	ug/kg
1,4-Dichlorobenzene	ND	5.2	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.2	ug/kg
1,2-Dichloroethane	ND	5.2	ug/kg
cis-1,2-Dichloroethene	ND	5.2	ug/kg
trans-1,2-Dichloroethene	ND	5.2	ug/kg
1,1-Dichloroethene	ND	5.2	ug/kg
1,2-Dichloropropane	ND	5.2	ug/kg
1,3-Dichloropropane	ND	5.2	ug/kg
2,2-Dichloropropane	ND	5.2	ug/kg
1,1-Dichloropropene	ND	5.2	ug/kg
1,4-Dioxane	ND	260	ug/kg
Ethylbenzene	ND	5.2	ug/kg
Hexachlorobutadiene	ND	5.2	ug/kg
Isopropylbenzene	ND	5.2	ug/kg
Methylene chloride	ND	5.2	ug/kg
Naphthalene	ND	5.2	ug/kg
Styrene	ND	5.2	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.2	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg
Tetrachloroethene	ND	5.2	ug/kg
Toluene	ND	5.2	ug/kg
1,2,4-Trichloro-benzene	ND	5.2	ug/kg
1,1,1-Trichloroethane	ND	5.2	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-110:32'-34'

GC/MS Volatiles

Lot-Sample #...: A3B120151-003 Work Order #...: FHGD41AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.2	ug/kg
Trichloroethene	ND	5.2	ug/kg
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.2	ug/kg
Vinyl chloride	ND	5.2	ug/kg
Xylenes (total)	ND	5.2	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(59 - 138)
1,2-Dichloroethane-d4	93	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	82	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-110:32'-34'

General Chemistry

Lot-Sample #...: A3B120151-003 Work Order #...: FHGD4 Matrix.....: SO
Date Sampled...: 02/10/03 17:45 Date Received..: 02/12/03
% Moisture.....: 20

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	80.3	10.0	%	MCAWW 160.3 MOD	02/12-02/13/03	3043479

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO. 6

GC/MS Volatiles

Lot-Sample #...: A3B120151-004 Work Order #...: FHGD61AA Matrix.....: WQ
Date Sampled...: 02/11/03 Date Received..: 02/12/03
Prep Date.....: 02/18/03 Analysis Date..: 02/18/03
Prep Batch #...: 3050125
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	50	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO. 6

GC/MS Volatiles

Lot-Sample #...: A3B120151-004 Work Order #...: FHGD61AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	87	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHR641AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B180000-345

Prep Date.....: 02/16/03
Analysis Date..: 02/16/03 **Prep Batch #...:** 3049345
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHR641AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(59 - 138)
1,2-Dichloroethane-d4	82	(61 - 130)
Toluene-d8	86	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHT071AA **Matrix.....:** WATER
MB Lot-Sample #: A3B190000-125

Prep Date.....: 02/18/03
Analysis Date..: 02/18/03 **Prep Batch #...:** 3050125
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHT071AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	77	(73 - 122)
1,2-Dichloroethane-d4	74	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHWK41AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B190000-472

Prep Date.....: 02/18/03
Analysis Date..: 02/18/03 **Prep Batch #...:** 3050472
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHWK41AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	81	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3B120151 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FHHPQ1AA		MB Lot-Sample #:	A3B120000-479	
	ND	10.0	%	MCAWW 160.3 MOD	02/12-02/13/03	3043479
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHR641AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B180000-345 FHR641AD-LCSD
Prep Date.....: 02/16/03 **Analysis Date..:** 02/16/03
Prep Batch #...: 3049345
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**113**	**(55 - 142)**			**SW846 8260B**
	117	**(55 - 142)**	**3.0**	**(0-27)**	**SW846 8260B**
Trichloroethene	**94**	**(70 - 131)**			**SW846 8260B**
	93	**(70 - 131)**	**1.5**	**(0-23)**	**SW846 8260B**
Benzene	**102**	**(75 - 129)**			**SW846 8260B**
	101	**(75 - 129)**	**1.2**	**(0-20)**	**SW846 8260B**
Toluene	**93**	**(71 - 130)**			**SW846 8260B**
	95	**(71 - 130)**	**2.0**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**99**	**(75 - 127)**			**SW846 8260B**
	100	**(75 - 127)**	**1.1**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(59 - 138)
	87	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
	84	(61 - 130)
Toluene-d8	87	(60 - 143)
	87	(60 - 143)
4-Bromofluorobenzene	104	(47 - 158)
	104	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHT071AC **Matrix.....:** WATER
LCS Lot-Sample#: A3B190000-125
Prep Date.....: 02/18/03 **Analysis Date..:** 02/18/03
Prep Batch #...: 3050125
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**99**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**82**	**(75 - 122)**	**SW846 8260B**
Benzene	**92**	**(80 - 116)**	**SW846 8260B**
Toluene	**98**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**95**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHWK41AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B190000-472 FHWK41AD-LCSD
Prep Date.....: 02/18/03 **Analysis Date..:** 02/18/03
Prep Batch #...: 3050472
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**94**	**(55 - 142)**			**SW846 8260B**
	97	**(55 - 142)**	**3.2**	**(0-27)**	**SW846 8260B**
Trichloroethene	**89**	**(70 - 131)**			**SW846 8260B**
	89	**(70 - 131)**	**0.55**	**(0-23)**	**SW846 8260B**
Benzene	**94**	**(75 - 129)**			**SW846 8260B**
	94	**(75 - 129)**	**0.23**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(71 - 130)**			**SW846 8260B**
	96	**(71 - 130)**	**2.8**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**97**	**(75 - 127)**			**SW846 8260B**
	94	**(75 - 127)**	**3.2**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(59 - 138)
	92	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
	84	(61 - 130)
Toluene-d8	91	(60 - 143)
	89	(60 - 143)
4-Bromofluorobenzene	89	(47 - 158)
	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B120151 **Work Order #...:** FHEG91AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A3B110157-002 FHEG91AD-MSD
Date Sampled...: 02/10/03 17:10 **Date Received..:** 02/11/03
Prep Date.....: 02/18/03 **Analysis Date..:** 02/18/03
Prep Batch #...: 3050125
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**94**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**3.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**84**	**(62 - 130)**			**SW846 8260B**
	83	**(62 - 130)**	**1.5**	**(0-20)**	**SW846 8260B**
Benzene	**95**	**(78 - 118)**			**SW846 8260B**
	94	**(78 - 118)**	**1.5**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(70 - 119)**			**SW846 8260B**
	98	**(70 - 119)**	**0.81**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**1.9**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	79	(73 - 122)
	78	(73 - 122)
1,2-Dichloroethane-d4	81	(61 - 128)
	77	(61 - 128)
Toluene-d8	88	(76 - 110)
	86	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)
	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B120151 **Work Order #...:** FHGD4-SMP FHGD4-DUP **Matrix.....:** SO

Date Sampled...: 02/10/03 17:45 **Date Received..:** 02/12/03

% Moisture.....: 20

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B120151-003		
	80.3	80.6	%	0.35	(0-20)	MCAWW 160.3 MOD	02/12-02/13/03	3043479

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B120151 **Work Order #...:** FHGM6-SMP FHGM6-DUP **Matrix.....:** SOLID

Date Sampled...: 02/10/03 16:40 **Date Received..:** 02/12/03

% Moisture.....: 7.6

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B120198-001		
	92.4	92.1	%	0.37	(0-20)	MCAWW 160.3 MOD	02/12-02/13/03	3043479

Dilution Factor: 1

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0700)

Client: Mac Tec, Inc.	Project Manager: Rhonda Quinn	Date: 2/11/03	Chain of Custody Number: 027027
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact: Bob Seymour	Lab Contact: Roger Toth	
Project Name and Location (State): TK Louisville / GA	Carrier/Waybill Number: Fed Ex; 835321295112		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Other	Containers & Preservatives: Unpres.	H_2SO_4	HNO3	HCl	NaOH	ZnAc/NaOH	Other	Analysis: 8260B/5035	Moisture	8260B	Special Instructions/ Conditions of Receipt
SB-110 : 0'-2'	2/10/03	16:45				X		4							3	1		For questions call
SB-110 : 4'-6'	2/10	18:00				X		4							3	1		Rhonda Quinn at
SB-110 : 32'-34'	2/10	17:45				X		4							3	1		(770) 421-3400
Trip Blank No. 6	2/11	—		X							2						2	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify):

1. Relinquished By: R. A. Seymour To: Fed Ex	Date: 2/11/03	Time: 15:00	1. Received By: Linda Sanders	Date: 2/12/03	Time: 1055
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

SAMPLE SUMMARY

A3A240219

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FGLWD	001	SB-111:0'-2'	01/22/03	15:15
FGLWK	002	SB-111:21'-22'	01/22/03	17:30
FGLWQ	003	SB-111:32'-33'	01/22/03	17:15
FGLWT	004	RINSATE NO 1	01/22/03	18:20
FGLW3	005	POTABLE WATER	01/22/03	18:30
FGLXA	006	TRIP BLANK	01/23/03	
FGLXE	007	SB-112:0'-2'	01/23/03	08:00
FGLXH	008	SB-112:18'-19'	01/23/03	10:45
FGLXJ	009	SB-112:38'-39'	01/23/03	10:30
FGLXN	010	SB-200:10'-11'	01/23/03	12:30
FGLXQ	011	SB-109:0'-2'	01/23/03	11:15
FGLXT	012	SB-109:11'-12'	01/23/03	13:00
FGLXV	013	SB-109:27'-28'	01/23/03	12:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3A240219

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

February 18, 2003

CASE NARRATIVE

A3A240219

The following report contains the analytical results for two water samples, ten solid samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK Louisville/GA Site. The samples were received on January 24, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 6, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 5.2° C.

GC/MS VOLATILES

The solid samples were preserved by freezing in water.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

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EXECUTIVE SUMMARY - Detection Highlights

A3A240219

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-111:0'-2' 01/22/03 15:15 001				
Percent Solids	89.9	10.0	%	MCAWW 160.3 MOD
SB-111:21'-22' 01/22/03 17:30 002				
Percent Solids	92.5	10.0	%	MCAWW 160.3 MOD
SB-111:32'-33' 01/22/03 17:15 003				
Percent Solids	95.4	10.0	%	MCAWW 160.3 MOD
SB-112:0'-2' 01/23/03 08:00 007				
Trichloroethene	23	5.1	ug/kg	SW846 8260B
Percent Solids	93.8	10.0	%	MCAWW 160.3 MOD
SB-112:18'-19' 01/23/03 10:45 008				
Trichloroethene	560	260	ug/kg	SW846 8260B
Percent Solids	85.4	10.0	%	MCAWW 160.3 MOD
SB-112:38'-39' 01/23/03 10:30 009				
Trichloroethene	17	5.4	ug/kg	SW846 8260B
Percent Solids	94.2	10.0	%	MCAWW 160.3 MOD
SB-200:10'-11' 01/23/03 12:30 010				
Trichloroethene	610	230	ug/kg	SW846 8260B
Percent Solids	85.8	10.0	%	MCAWW 160.3 MOD
SB-109:0'-2' 01/23/03 11:15 011				
Percent Solids	82.8	10.0	%	MCAWW 160.3 MOD
SB-109:11'-12' 01/23/03 13:00 012				
Trichloroethene	19	4.5	ug/kg	SW846 8260B
Percent Solids	88.7	10.0	%	MCAWW 160.3 MOD

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A3A240219

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-109:27'-28' 01/23/03 12:45 013				
Percent Solids	94.0	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A3A240219

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A3A240219

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FGLWD	001	SB-111:0'-2'	01/22/03	15:15
FGLWK	002	SB-111:21'-22'	01/22/03	17:30
FGLWQ	003	SB-111:32'-33'	01/22/03	17:15
FGLWT	004	RINSATE NO 1	01/22/03	18:20
FGLW3	005	POTABLE WATER	01/22/03	18:30
FGLXA	006	TRIP BLANK	01/23/03	
FGLXE	007	SB-112:0'-2'	01/23/03	08:00
FGLXH	008	SB-112:18'-19'	01/23/03	10:45
FGLXJ	009	SB-112:38'-39'	01/23/03	10:30
FGLXN	010	SB-200:10'-11'	01/23/03	12:30
FGLXQ	011	SB-109:0'-2'	01/23/03	11:15
FGLXT	012	SB-109:11'-12'	01/23/03	13:00
FGLXV	013	SB-109:27'-28'	01/23/03	12:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-111:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A240219-001 **Work Order #...:** FGLWD1AC **Matrix.....:** SO
Date Sampled...: 01/22/03 15:15 **Date Received..:** 01/24/03
Prep Date.....: 02/01/03 **Analysis Date..:** 02/01/03
Prep Batch #...: 3034284
Dilution Factor: 0.81
% Moisture.....: 10 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.5	ug/kg
Bromodichloromethane	ND	4.5	ug/kg
Bromoform	ND	4.5	ug/kg
Bromomethane	ND	9.0	ug/kg
Carbon tetrachloride	ND	4.5	ug/kg
Chlorobenzene	ND	4.5	ug/kg
Chlorodibromomethane	ND	4.5	ug/kg
Chloroethane	ND	9.0	ug/kg
Chloroform	ND	4.5	ug/kg
Chloromethane	ND	9.0	ug/kg
Dibromomethane	ND	4.5	ug/kg
1,2-Dichlorobenzene	ND	4.5	ug/kg
1,3-Dichlorobenzene	ND	4.5	ug/kg
1,4-Dichlorobenzene	ND	4.5	ug/kg
Dichlorodifluoromethane	ND	9.0	ug/kg
1,1-Dichloroethane	ND	4.5	ug/kg
1,2-Dichloroethane	ND	4.5	ug/kg
cis-1,2-Dichloroethene	ND	4.5	ug/kg
trans-1,2-Dichloroethene	ND	4.5	ug/kg
1,1-Dichloroethene	ND	4.5	ug/kg
1,2-Dichloropropane	ND	4.5	ug/kg
1,3-Dichloropropane	ND	4.5	ug/kg
2,2-Dichloropropane	ND	4.5	ug/kg
1,1-Dichloropropene	ND	4.5	ug/kg
1,4-Dioxane	ND	450	ug/kg
Ethylbenzene	ND	4.5	ug/kg
Hexachlorobutadiene	ND	4.5	ug/kg
Isopropylbenzene	ND	4.5	ug/kg
Methylene chloride	ND	4.5	ug/kg
Naphthalene	ND	4.5	ug/kg
Styrene	ND	4.5	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.5	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.5	ug/kg
Tetrachloroethene	ND	4.5	ug/kg
Toluene	ND	4.5	ug/kg
1,2,4-Trichloro-benzene	ND	4.5	ug/kg
1,1,1-Trichloroethane	ND	4.5	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-111:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A240219-001 **Work Order #...:** FGLWD1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.5	ug/kg
Trichloroethene	ND	4.5	ug/kg
Trichlorofluoromethane	ND	9.0	ug/kg
1,2,3-Trichloropropane	ND	4.5	ug/kg
Vinyl chloride	ND	4.5	ug/kg
Xylenes (total)	ND	4.5	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	74	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-111:21'-22'

GC/MS Volatiles

Lot-Sample #...: A3A240219-002 **Work Order #...:** FGLWK1AC **Matrix.....:** SO
Date Sampled...: 01/22/03 17:30 **Date Received..:** 01/24/03
Prep Date.....: 02/01/03 **Analysis Date..:** 02/01/03
Prep Batch #...: 3034284
Dilution Factor: 0.93
% Moisture.....: 7.5 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/kg
Bromodichloromethane	ND	5.0	ug/kg
Bromoform	ND	5.0	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.0	ug/kg
Chlorobenzene	ND	5.0	ug/kg
Chlorodibromomethane	ND	5.0	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.0	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.0	ug/kg
1,2-Dichlorobenzene	ND	5.0	ug/kg
1,3-Dichlorobenzene	ND	5.0	ug/kg
1,4-Dichlorobenzene	ND	5.0	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.0	ug/kg
1,2-Dichloroethane	ND	5.0	ug/kg
cis-1,2-Dichloroethene	ND	5.0	ug/kg
trans-1,2-Dichloroethene	ND	5.0	ug/kg
1,1-Dichloroethene	ND	5.0	ug/kg
1,2-Dichloropropane	ND	5.0	ug/kg
1,3-Dichloropropane	ND	5.0	ug/kg
2,2-Dichloropropane	ND	5.0	ug/kg
1,1-Dichloropropene	ND	5.0	ug/kg
1,4-Dioxane	ND	500	ug/kg
Ethylbenzene	ND	5.0	ug/kg
Hexachlorobutadiene	ND	5.0	ug/kg
Isopropylbenzene	ND	5.0	ug/kg
Methylene chloride	ND	5.0	ug/kg
Naphthalene	ND	5.0	ug/kg
Styrene	ND	5.0	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg
Tetrachloroethene	ND	5.0	ug/kg
Toluene	ND	5.0	ug/kg
1,2,4-Trichloro-benzene	ND	5.0	ug/kg
1,1,1-Trichloroethane	ND	5.0	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-111:21'-22'

GC/MS Volatiles

Lot-Sample #...: A3A240219-002 **Work Order #...:** FGLWK1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/kg
Trichloroethene	ND	5.0	ug/kg
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.0	ug/kg
Vinyl chloride	ND	5.0	ug/kg
Xylenes (total)	ND	5.0	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
1,2-Dichloroethane-d4	93	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	76	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-111:32'-33'

GC/MS Volatiles

Lot-Sample #...: A3A240219-003 Work Order #...: FGLWQ1AC Matrix.....: SO
Date Sampled...: 01/22/03 17:15 Date Received..: 01/24/03
Prep Date.....: 02/04/03 Analysis Date..: 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 1.02
% Moisture.....: 4.6 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromodichloromethane	ND	5.3	ug/kg
Benzene	ND	5.3	ug/kg
Bromoform	ND	5.3	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.3	ug/kg
Chlorobenzene	ND	5.3	ug/kg
Chlorodibromomethane	ND	5.3	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.3	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.3	ug/kg
1,2-Dichlorobenzene	ND	5.3	ug/kg
1,3-Dichlorobenzene	ND	5.3	ug/kg
1,4-Dichlorobenzene	ND	5.3	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.3	ug/kg
1,2-Dichloroethane	ND	5.3	ug/kg
cis-1,2-Dichloroethene	ND	5.3	ug/kg
trans-1,2-Dichloroethene	ND	5.3	ug/kg
1,1-Dichloroethene	ND	5.3	ug/kg
1,2-Dichloropropane	ND	5.3	ug/kg
1,3-Dichloropropane	ND	5.3	ug/kg
2,2-Dichloropropane	ND	5.3	ug/kg
1,1-Dichloropropene	ND	5.3	ug/kg
1,4-Dioxane	ND	270	ug/kg
Ethylbenzene	ND	5.3	ug/kg
Hexachlorobutadiene	ND	5.3	ug/kg
Isopropylbenzene	ND	5.3	ug/kg
Methylene chloride	ND	5.3	ug/kg
Naphthalene	ND	5.3	ug/kg
Styrene	ND	5.3	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.3	ug/kg
Tetrachloroethene	ND	5.3	ug/kg
Toluene	ND	5.3	ug/kg
1,2,4-Trichlorobenzene	ND	5.3	ug/kg
1,1,1-Trichloroethane	ND	5.3	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-111:32'-33'

GC/MS Volatiles

Lot-Sample #...: A3A240219-003 Work Order #...: FGLWQ1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.3	ug/kg
Trichloroethene	ND	5.3	ug/kg
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.3	ug/kg
Vinyl chloride	ND	5.3	ug/kg
Xylenes (total)	ND	5.3	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	97	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	78	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: RINSATE NO 1

GC/MS Volatiles

Lot-Sample #...: A3A240219-004 **Work Order #...:** FGLWT1AA **Matrix.....:** WQ
Date Sampled...: 01/22/03 18:20 **Date Received..:** 01/24/03
Prep Date.....: 01/31/03 **Analysis Date..:** 01/31/03
Prep Batch #...: 3033100
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: RINSATE NO 1

GC/MS Volatiles

Lot-Sample #...: A3A240219-004 **Work Order #...:** FGLWT1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(73 - 122)
1,2-Dichloroethane-d4	82	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: POTABLE WATER

GC/MS Volatiles

Lot-Sample #...: A3A240219-005 Work Order #...: FGLW31AA Matrix.....: WG
Date Sampled...: 01/22/03 18:30 Date Received..: 01/24/03
Prep Date.....: 01/31/03 Analysis Date..: 01/31/03
Prep Batch #...: 3033100
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: POTABLE WATER

GC/MS Volatiles

Lot-Sample #...: A3A240219-005 **Work Order #...:** FGLW31AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(73 - 122)
1,2-Dichloroethane-d4	81	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3A240219-006 **Work Order #...:** FGLXA1AA **Matrix.....:** WQ
Date Sampled...: 01/23/03 **Date Received..:** 01/24/03
Prep Date.....: 01/31/03 **Analysis Date..:** 01/31/03
Prep Batch #...: 3033100
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3A240219-006 **Work Order #...:** FGLXA1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(73 - 122)
1,2-Dichloroethane-d4	84	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-112:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A240219-007 **Work Order #...:** FGLXE1AC **Matrix.....:** SO
Date Sampled...: 01/23/03 08:00 **Date Received..:** 01/24/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 0.96
% Moisture.....: 6.2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.1	ug/kg
Bromodichloromethane	ND	5.1	ug/kg
Bromoform	ND	5.1	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.1	ug/kg
Chlorobenzene	ND	5.1	ug/kg
Chlorodibromomethane	ND	5.1	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.1	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.1	ug/kg
1,2-Dichlorobenzene	ND	5.1	ug/kg
1,3-Dichlorobenzene	ND	5.1	ug/kg
1,4-Dichlorobenzene	ND	5.1	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.1	ug/kg
1,2-Dichloroethane	ND	5.1	ug/kg
cis-1,2-Dichloroethene	ND	5.1	ug/kg
trans-1,2-Dichloroethene	ND	5.1	ug/kg
1,1-Dichloroethene	ND	5.1	ug/kg
1,2-Dichloropropane	ND	5.1	ug/kg
1,3-Dichloropropane	ND	5.1	ug/kg
2,2-Dichloropropane	ND	5.1	ug/kg
1,1-Dichloropropene	ND	5.1	ug/kg
1,4-Dioxane	ND	260	ug/kg
Ethylbenzene	ND	5.1	ug/kg
Hexachlorobutadiene	ND	5.1	ug/kg
Isopropylbenzene	ND	5.1	ug/kg
Methylene chloride	ND	5.1	ug/kg
Naphthalene	ND	5.1	ug/kg
Styrene	ND	5.1	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg
Tetrachloroethene	ND	5.1	ug/kg
Toluene	ND	5.1	ug/kg
1,2,4-Trichloro-benzene	ND	5.1	ug/kg
1,1,1-Trichloroethane	ND	5.1	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-112:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A240219-007 Work Order #...: FGLXE1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.1	ug/kg
Trichloroethene	**23**	**5.1**	**ug/kg**
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.1	ug/kg
Vinyl chloride	ND	5.1	ug/kg
Xylenes (total)	ND	5.1	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(59 - 138)
1,2-Dichloroethane-d4	93	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	74	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-112:18'-19'

GC/MS Volatiles

Lot-Sample #...: A3A240219-008 Work Order #...: FGLXH1AC Matrix.....: SO
Date Sampled...: 01/23/03 10:45 Date Received..: 01/24/03
Prep Date.....: 01/24/03 Analysis Date..: 02/04/03
Prep Batch #...: 3035353
Dilution Factor: 0.88
% Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	260	ug/kg
Bromodichloromethane	ND	260	ug/kg
Bromoform	ND	260	ug/kg
Bromomethane	ND	520	ug/kg
Carbon tetrachloride	ND	260	ug/kg
Chlorobenzene	ND	260	ug/kg
Chlorodibromomethane	ND	260	ug/kg
Chloroethane	ND	520	ug/kg
Chloroform	ND	260	ug/kg
Chloromethane	ND	520	ug/kg
Dibromomethane	ND	260	ug/kg
1,2-Dichlorobenzene	ND	260	ug/kg
1,3-Dichlorobenzene	ND	260	ug/kg
1,4-Dichlorobenzene	ND	260	ug/kg
Dichlorodifluoromethane	ND	520	ug/kg
1,1-Dichloroethane	ND	260	ug/kg
1,2-Dichloroethane	ND	260	ug/kg
1,1-Dichloroethene	ND	260	ug/kg
cis-1,2-Dichloroethene	ND	260	ug/kg
trans-1,2-Dichloroethene	ND	260	ug/kg
1,2-Dichloropropane	ND	260	ug/kg
1,3-Dichloropropane	ND	260	ug/kg
2,2-Dichloropropane	ND	260	ug/kg
1,1-Dichloropropene	ND	260	ug/kg
1,4-Dioxane	ND	26000	ug/kg
Ethylbenzene	ND	260	ug/kg
Trichlorofluoromethane	ND	520	ug/kg
Hexachlorobutadiene	ND	260	ug/kg
Isopropylbenzene	ND	260	ug/kg
Methylene chloride	ND	260	ug/kg
Naphthalene	ND	260	ug/kg
Styrene	ND	260	ug/kg
1,1,1,2-Tetrachloroethane	ND	260	ug/kg
1,1,2,2-Tetrachloroethane	ND	260	ug/kg
Tetrachloroethene	ND	260	ug/kg
Toluene	ND	260	ug/kg
1,2,4-Trichloro-benzene	ND	260	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-112:18'-19'

GC/MS Volatiles

Lot-Sample #...: A3A240219-008 **Work Order #...:** FGLXH1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	260	ug/kg
1,1,2-Trichloroethane	ND	260	ug/kg
Trichloroethene	**560**	**260**	**ug/kg**
1,2,3-Trichloropropane	ND	260	ug/kg
Vinyl chloride	ND	260	ug/kg
Xylenes (total)	ND	260	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	72	(59 - 138)
1,2-Dichloroethane-d4	75	(61 - 130)
Toluene-d8	74	(60 - 143)
4-Bromofluorobenzene	74	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-112:38'-39'

GC/MS Volatiles

Lot-Sample #...: A3A240219-009 **Work Order #...:** FGLXJ1AC **Matrix.....:** SO
Date Sampled...: 01/23/03 10:30 **Date Received..:** 01/24/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 1.02
% Moisture.....: 5.8 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.4	ug/kg
Bromodichloromethane	ND	5.4	ug/kg
Bromoform	ND	5.4	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.4	ug/kg
Chlorobenzene	ND	5.4	ug/kg
Chlorodibromomethane	ND	5.4	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.4	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.4	ug/kg
1,2-Dichlorobenzene	ND	5.4	ug/kg
1,3-Dichlorobenzene	ND	5.4	ug/kg
1,4-Dichlorobenzene	ND	5.4	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.4	ug/kg
1,2-Dichloroethane	ND	5.4	ug/kg
cis-1,2-Dichloroethene	ND	5.4	ug/kg
trans-1,2-Dichloroethene	ND	5.4	ug/kg
1,1-Dichloroethene	ND	5.4	ug/kg
1,2-Dichloropropane	ND	5.4	ug/kg
1,3-Dichloropropane	ND	5.4	ug/kg
2,2-Dichloropropane	ND	5.4	ug/kg
1,1-Dichloropropene	ND	5.4	ug/kg
1,4-Dioxane	ND	270	ug/kg
Ethylbenzene	ND	5.4	ug/kg
Hexachlorobutadiene	ND	5.4	ug/kg
Isopropylbenzene	ND	5.4	ug/kg
Methylene chloride	ND	5.4	ug/kg
Naphthalene	ND	5.4	ug/kg
Styrene	ND	5.4	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.4	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg
Tetrachloroethene	ND	5.4	ug/kg
Toluene	ND	5.4	ug/kg
1,2,4-Trichlorobenzene	ND	5.4	ug/kg
1,1,1-Trichloroethane	ND	5.4	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-112:38'-39'

GC/MS Volatiles

Lot-Sample #...: A3A240219-009 Work Order #...: FGLXJ1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.4	ug/kg
Trichloroethene	**17**	**5.4**	**ug/kg**
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.4	ug/kg
Vinyl chloride	ND	5.4	ug/kg
Xylenes (total)	ND	5.4	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	93	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	76	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-200:10'-11'

GC/MS Volatiles

Lot-Sample #...: A3A240219-010 **Work Order #...:** FGLXN1AC **Matrix.....:** SO
Date Sampled...: 01/23/03 12:30 **Date Received..:** 01/24/03
Prep Date.....: 01/24/03 **Analysis Date..:** 02/05/03
Prep Batch #...: 3035353
Dilution Factor: 0.78
% Moisture.....: 14 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	230	ug/kg
Bromodichloromethane	ND	230	ug/kg
Bromoform	ND	230	ug/kg
Bromomethane	ND	450	ug/kg
Carbon tetrachloride	ND	230	ug/kg
Chlorobenzene	ND	230	ug/kg
Chlorodibromomethane	ND	230	ug/kg
Chloroethane	ND	450	ug/kg
Chloroform	ND	230	ug/kg
Chloromethane	ND	450	ug/kg
Dibromomethane	ND	230	ug/kg
1,2-Dichlorobenzene	ND	230	ug/kg
1,3-Dichlorobenzene	ND	230	ug/kg
1,4-Dichlorobenzene	ND	230	ug/kg
Dichlorodifluoromethane	ND	450	ug/kg
1,1-Dichloroethane	ND	230	ug/kg
1,2-Dichloroethane	ND	230	ug/kg
1,1-Dichloroethene	ND	230	ug/kg
cis-1,2-Dichloroethene	ND	230	ug/kg
trans-1,2-Dichloroethene	ND	230	ug/kg
1,2-Dichloropropane	ND	230	ug/kg
1,3-Dichloropropane	ND	230	ug/kg
2,2-Dichloropropane	ND	230	ug/kg
1,1-Dichloropropene	ND	230	ug/kg
1,4-Dioxane	ND	23000	ug/kg
Ethylbenzene	ND	230	ug/kg
Trichlorofluoromethane	ND	450	ug/kg
Hexachlorobutadiene	ND	230	ug/kg
Isopropylbenzene	ND	230	ug/kg
Methylene chloride	ND	230	ug/kg
Naphthalene	ND	230	ug/kg
Styrene	ND	230	ug/kg
1,1,1,2-Tetrachloroethane	ND	230	ug/kg
1,1,2,2-Tetrachloroethane	ND	230	ug/kg
Tetrachloroethene	ND	230	ug/kg
Toluene	ND	230	ug/kg
1,2,4-Trichloro-benzene	ND	230	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-200:10'-11'

GC/MS Volatiles

Lot-Sample #...: A3A240219-010 Work Order #...: FGLXN1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	230	ug/kg
1,1,2-Trichloroethane	ND	230	ug/kg
Trichloroethene	**610**	**230**	**ug/kg**
1,2,3-Trichloropropane	ND	230	ug/kg
Vinyl chloride	ND	230	ug/kg
Xylenes (total)	ND	230	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	73	(59 - 138)
1,2-Dichloroethane-d4	73	(61 - 130)
Toluene-d8	73	(60 - 143)
4-Bromofluorobenzene	71	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-109:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A240219-011 **Work Order #...:** FGLXQ1AC **Matrix.....:** SO
Date Sampled...: 01/23/03 11:15 **Date Received..:** 01/24/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 0.85
% Moisture.....: 17 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.1	ug/kg
Bromodichloromethane	ND	5.1	ug/kg
Bromoform	ND	5.1	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.1	ug/kg
Chlorobenzene	ND	5.1	ug/kg
Chlorodibromomethane	ND	5.1	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.1	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.1	ug/kg
1,2-Dichlorobenzene	ND	5.1	ug/kg
1,3-Dichlorobenzene	ND	5.1	ug/kg
1,4-Dichlorobenzene	ND	5.1	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.1	ug/kg
1,2-Dichloroethane	ND	5.1	ug/kg
cis-1,2-Dichloroethene	ND	5.1	ug/kg
trans-1,2-Dichloroethene	ND	5.1	ug/kg
1,1-Dichloroethene	ND	5.1	ug/kg
1,2-Dichloropropane	ND	5.1	ug/kg
1,3-Dichloropropane	ND	5.1	ug/kg
2,2-Dichloropropane	ND	5.1	ug/kg
1,1-Dichloropropene	ND	5.1	ug/kg
1,4-Dioxane	ND	260	ug/kg
Ethylbenzene	ND	5.1	ug/kg
Hexachlorobutadiene	ND	5.1	ug/kg
Isopropylbenzene	ND	5.1	ug/kg
Methylene chloride	ND	5.1	ug/kg
Naphthalene	ND	5.1	ug/kg
Styrene	ND	5.1	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg
Tetrachloroethene	ND	5.1	ug/kg
Toluene	ND	5.1	ug/kg
1,2,4-Trichloro-benzene	ND	5.1	ug/kg
1,1,1-Trichloroethane	ND	5.1	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-109:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3A240219-011 **Work Order #...:** FGLXQ1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.1	ug/kg
Trichloroethene	ND	5.1	ug/kg
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.1	ug/kg
Vinyl chloride	ND	5.1	ug/kg
Xylenes (total)	ND	5.1	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(59 - 138)
1,2-Dichloroethane-d4	93	(61 - 130)
Toluene-d8	89	(60 - 143)
4-Bromofluorobenzene	75	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-109:11'-12'

GC/MS Volatiles

Lot-Sample #...: A3A240219-012 **Work Order #...:** FGLXT1AC **Matrix.....:** SO
Date Sampled...: 01/23/03 13:00 **Date Received..:** 01/24/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 0.79
% Moisture.....: 11 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.5	ug/kg
Bromodichloromethane	ND	4.5	ug/kg
Bromoform	ND	4.5	ug/kg
Bromomethane	ND	8.9	ug/kg
Carbon tetrachloride	ND	4.5	ug/kg
Chlorobenzene	ND	4.5	ug/kg
Chlorodibromomethane	ND	4.5	ug/kg
Chloroethane	ND	8.9	ug/kg
Chloroform	ND	4.5	ug/kg
Chloromethane	ND	8.9	ug/kg
Dibromomethane	ND	4.5	ug/kg
1,2-Dichlorobenzene	ND	4.5	ug/kg
1,3-Dichlorobenzene	ND	4.5	ug/kg
1,4-Dichlorobenzene	ND	4.5	ug/kg
Dichlorodifluoromethane	ND	8.9	ug/kg
1,1-Dichloroethane	ND	4.5	ug/kg
1,2-Dichloroethane	ND	4.5	ug/kg
cis-1,2-Dichloroethene	ND	4.5	ug/kg
trans-1,2-Dichloroethene	ND	4.5	ug/kg
1,1-Dichloroethene	ND	4.5	ug/kg
1,2-Dichloropropane	ND	4.5	ug/kg
1,3-Dichloropropane	ND	4.5	ug/kg
2,2-Dichloropropane	ND	4.5	ug/kg
1,1-Dichloropropene	ND	4.5	ug/kg
1,4-Dioxane	ND	220	ug/kg
Ethylbenzene	ND	4.5	ug/kg
Hexachlorobutadiene	ND	4.5	ug/kg
Isopropylbenzene	ND	4.5	ug/kg
Methylene chloride	ND	4.5	ug/kg
Naphthalene	ND	4.5	ug/kg
Styrene	ND	4.5	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.5	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.5	ug/kg
Tetrachloroethene	ND	4.5	ug/kg
Toluene	ND	4.5	ug/kg
1,2,4-Trichloro-benzene	ND	4.5	ug/kg
1,1,1-Trichloroethane	ND	4.5	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-109:11'-12'

GC/MS Volatiles

Lot-Sample #...: A3A240219-012 Work Order #...: FGLXT1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.5	ug/kg
Trichloroethene	**19**	**4.5**	**ug/kg**
Trichlorofluoromethane	ND	8.9	ug/kg
1,2,3-Trichloropropane	ND	4.5	ug/kg
Vinyl chloride	ND	4.5	ug/kg
Xylenes (total)	ND	4.5	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	76	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-109:27'-28'

GC/MS Volatiles

Lot-Sample #...: A3A240219-013 **Work Order #...:** FGLXV1AC **Matrix.....:** SO
Date Sampled...: 01/23/03 12:45 **Date Received..:** 01/24/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 0.91
% Moisture.....: 6.0 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.7	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.7	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.7	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.7	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	ND	4.8	ug/kg
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichloro-benzene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-109:27'-28'

GC/MS Volatiles

Lot-Sample #...: A3A240219-013 Work Order #...: FGLXV1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	ND	4.8	ug/kg
Trichlorofluoromethane	ND	9.7	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(59 - 138)
1,2-Dichloroethane-d4	93	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	76	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG2CC1AA **Matrix.....:** WATER
MB Lot-Sample #: A3B020000-100

Prep Date.....: 01/30/03
Analysis Date..: 01/30/03 **Prep Batch #...:** 3033100
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG2CC1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(73 - 122)
1,2-Dichloroethane-d4	82	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG2031AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B030000-284

Prep Date.....: 01/31/03
Analysis Date..: 01/31/03 **Prep Batch #...:** 3034284
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	500	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG2031AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	95	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG4R61AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B040000-353

Prep Date.....: 01/24/03
Analysis Date..: 02/04/03 **Prep Batch #...:** 3035353
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	250	ug/kg	SW846 8260B
Bromodichloromethane	ND	250	ug/kg	SW846 8260B
Bromoform	ND	250	ug/kg	SW846 8260B
Bromomethane	ND	500	ug/kg	SW846 8260B
Carbon tetrachloride	ND	250	ug/kg	SW846 8260B
Chlorobenzene	ND	250	ug/kg	SW846 8260B
Chlorodibromomethane	ND	250	ug/kg	SW846 8260B
Chloroethane	ND	500	ug/kg	SW846 8260B
Chloroform	ND	250	ug/kg	SW846 8260B
Chloromethane	ND	500	ug/kg	SW846 8260B
Dibromomethane	ND	250	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	500	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	250	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	250	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	250	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	250	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	250	ug/kg	SW846 8260B
1,4-Dioxane	ND	25000	ug/kg	SW846 8260B
Ethylbenzene	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	500	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	250	ug/kg	SW846 8260B
Isopropylbenzene	ND	250	ug/kg	SW846 8260B
Methylene chloride	ND	250	ug/kg	SW846 8260B
Naphthalene	ND	250	ug/kg	SW846 8260B
Styrene	ND	250	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
Tetrachloroethene	ND	250	ug/kg	SW846 8260B
Toluene	ND	250	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	250	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	250	ug/kg	SW846 8260B
Trichloroethene	ND	250	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG4R61AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	250	ug/kg	SW846 8260B
Vinyl chloride	ND	250	ug/kg	SW846 8260B
Xylenes (total)	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
Toluene-d8	89	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG4W01AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B040000-376

Prep Date.....: 02/03/03
Analysis Date..: 02/03/03 **Prep Batch #...:** 3035376
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG4W01AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG2CC1AC **Matrix.....:** WATER
LCS Lot-Sample#: A3B020000-100
Prep Date.....: 01/30/03 **Analysis Date..:** 01/30/03
Prep Batch #...: 3033100
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**107**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**89**	**(75 - 122)**	**SW846 8260B**
Benzene	**106**	**(80 - 116)**	**SW846 8260B**
Toluene	**104**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
Toluene-d8	87	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG2031AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B030000-284 FG2031AD-LCSD
Prep Date.....: 01/31/03 **Analysis Date..:** 01/31/03
Prep Batch #...: 3034284
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**84**	**(55 - 142)**			**SW846 8260B**
	85	**(55 - 142)**	**0.84**	**(0-27)**	**SW846 8260B**
Trichloroethene	**84**	**(70 - 131)**			**SW846 8260B**
	82	**(70 - 131)**	**2.7**	**(0-23)**	**SW846 8260B**
Benzene	**83**	**(75 - 129)**			**SW846 8260B**
	82	**(75 - 129)**	**0.39**	**(0-20)**	**SW846 8260B**
Toluene	**85**	**(71 - 130)**			**SW846 8260B**
	84	**(71 - 130)**	**1.4**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**85**	**(75 - 127)**			**SW846 8260B**
	84	**(75 - 127)**	**1.7**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(59 - 138)
	98	(59 - 138)
1,2-Dichloroethane-d4	98	(61 - 130)
	96	(61 - 130)
Toluene-d8	93	(60 - 143)
	94	(60 - 143)
4-Bromofluorobenzene	91	(47 - 158)
	88	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG4R61AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B040000-353 FG4R61AD-LCSD
Prep Date.....: 01/24/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035353
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**97**	**(75 - 129)**			**SW846 8260B**
	100	**(75 - 129)**	**2.4**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(75 - 127)**			**SW846 8260B**
	94	**(75 - 127)**	**4.7**	**(0-22)**	**SW846 8260B**
1,1-Dichloroethene	**98**	**(55 - 142)**			**SW846 8260B**
	95	**(55 - 142)**	**3.8**	**(0-27)**	**SW846 8260B**
Toluene	**108**	**(71 - 130)**			**SW846 8260B**
	107	**(71 - 130)**	**0.87**	**(0-24)**	**SW846 8260B**
Trichloroethene	**84**	**(70 - 131)**			**SW846 8260B**
	83	**(70 - 131)**	**0.99**	**(0-23)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(59 - 138)
	88	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
	92	(61 - 130)
Toluene-d8	92	(60 - 143)
	91	(60 - 143)
4-Bromofluorobenzene	94	(47 - 158)
	92	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FG4W01AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B040000-376 FG4W01AD-LCSD
Prep Date.....: 02/03/03 **Analysis Date..:** 02/03/03
Prep Batch #...: 3035376
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**98**	**(55 - 142)**			**SW846 8260B**
	97	**(55 - 142)**	**0.76**	**(0-27)**	**SW846 8260B**
Trichloroethene	**96**	**(70 - 131)**			**SW846 8260B**
	94	**(70 - 131)**	**1.4**	**(0-23)**	**SW846 8260B**
Benzene	**97**	**(75 - 129)**			**SW846 8260B**
	94	**(75 - 129)**	**3.0**	**(0-20)**	**SW846 8260B**
Toluene	**97**	**(71 - 130)**			**SW846 8260B**
	95	**(71 - 130)**	**2.4**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**98**	**(75 - 127)**			**SW846 8260B**
	96	**(75 - 127)**	**2.1**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
	94	(59 - 138)
1,2-Dichloroethane-d4	96	(61 - 130)
	96	(61 - 130)
Toluene-d8	93	(60 - 143)
	91	(60 - 143)
4-Bromofluorobenzene	89	(47 - 158)
	88	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FGK4M1CD-MS **Matrix.....:** WATER
MS Lot-Sample #: A3A240132-004 FGK4M1CE-MSD
Date Sampled...: 01/23/03 **Date Received..:** 01/24/03
Prep Date.....: 01/30/03 **Analysis Date..:** 01/30/03
Prep Batch #...: 3033100
Dilution Factor: 100

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**106**	**(62 - 130)**			**SW846 8260B**
	107	**(62 - 130)**	**0.96**	**(0-20)**	**SW846 8260B**
Trichloroethene	**90**	**(62 - 130)**			**SW846 8260B**
	86	**(62 - 130)**	**5.2**	**(0-20)**	**SW846 8260B**
Benzene	**106**	**(78 - 118)**			**SW846 8260B**
	105	**(78 - 118)**	**0.24**	**(0-20)**	**SW846 8260B**
Toluene	**109**	**(70 - 119)**			**SW846 8260B**
	106	**(70 - 119)**	**1.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**0.93**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(73 - 122)
	86	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
	86	(61 - 128)
Toluene-d8	85	(76 - 110)
	86	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)
	86	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A240219 **Work Order #...:** FGRT81AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: A3A290102-011 FGRT81AG-MSD
Date Sampled...: 01/27/03 10:15 **Date Received..:** 01/29/03
Prep Date.....: 02/04/03 **Analysis Date..:** 02/04/03
Prep Batch #...: 3035376
Dilution Factor: 1 **% Moisture.....:** 12

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**87**	**(43 - 147)**			**SW846 8260B**
	94	**(43 - 147)**	**7.0**	**(0-27)**	**SW846 8260B**
Trichloroethene	**74**	**(46 - 143)**			**SW846 8260B**
	71	**(46 - 143)**	**3.9**	**(0-23)**	**SW846 8260B**
Benzene	**83**	**(55 - 138)**			**SW846 8260B**
	81	**(55 - 138)**	**1.9**	**(0-20)**	**SW846 8260B**
Toluene	**119**	**(46 - 147)**			**SW846 8260B**
	120	**(46 - 147)**	**0.73**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**78**	**(49 - 139)**			**SW846 8260B**
	72	**(49 - 139)**	**8.1**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(59 - 138)
	106	(59 - 138)
1,2-Dichloroethane-d4	104	(61 - 130)
	98	(61 - 130)
Toluene-d8	120	(60 - 143)
	119	(60 - 143)
4-Bromofluorobenzene	56	(47 - 158)
	54	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

Chain of Custody Record

SEVERN TRENT SERVICES — **Severn Trent Laboratories, Inc.**

STL-4124 (0700)

Client	Project Manager	Date	Chain of Custody Number
MacTec	Rhonda Quinn	1/23/03	027014
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 2
3200 Town Point Dr. Suite 100	(770) 421-3400 / (770) 421-3486		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bill Seymour		
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville / GA	Fed Ex: 835321295097		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	8260B	Special Instructions/ Conditions of Receipt
SB-111: 0'-2'	1/22/03	15:15				X	4						3	1		For questions
SB-111: 21'-22'	1/22	17:30				X	4						3	1		call Rhonda Quinn
SB-111: 32'-33'	1/22	17:15				X	4						3	1		at (770) 421-3400
Rinsate No 1	1/22	18:20		X						3					3	
Potable Water	1/22	18:30		X						3					3	
Trip Blank	1/23	—		X						2					2	
SB-112: 0'-2'	1/23	08:00				X	4						3	1		
SB-112: 18'-19'	1/23	10:45				X	4						3	1		
SB-112: 38'-39'	1/23	10:30				X	4						3	1		
SB-200: 10'-11'	1/23	12:30				X	4						3	1		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: B.A. Seymour To Fed Ex	1/23/03	15:00	1. Received By: [signature]	1/24/03	950
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

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Chain of Custody Record

SEVERN TRENT SERVICES **Severn Trent Laboratories, Inc.**

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STL-4124 (0700)

Client	Project Manager	Date	Chain of Custody Number
MacTec	Rhonda Quinn	1/23/02	027015
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
3200 Town Point Dr. Suite 100	(770) 421-3400 / (770) 421-3486		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bob Lymour		
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville / GA	Fed Ex: 835321295097		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: 8260B/5035	Moisture	Special Instructions/ Conditions of Receipt
SB-109: 0'-2'	1/23/02	11:15				X	4						3	1	For questions
SB-109: 11'-12'	1/23	13:00				X	4						3	1	call Rhonda Quinn
SB-109: 27'-28'	1/23	12:45				X	4						3	1	at (770) 421-3400

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: R. A. Lymann To Fed Ex	1/23/02	15:00	1. Received By: Anne SAnders	1/24/02	950
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

STL North Canton

SAMPLE SUMMARY

A3B050153

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FG5VT	001	SB-113: 0'-2'	02/03/03	13:15
FG5VX	002	TRIP BLANK NO. 1	02/04/03	
FG5V3	003	RINSATE BLANK	02/04/03	13:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

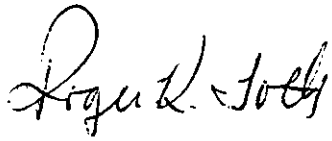
TK LOUISVILLE/GA

Lot #: A3B050153

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.



Roger K. Toth
Project Manager

February 24, 2003

CASE NARRATIVE

A3B050153

The following report contains the analytical results for one water sample, one solid sample and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK Louisville/GA Site. The samples were received on February 5, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 13, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.1° C.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit. or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3B050153

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-113: 0'-2' 02/03/03 13:15 001				
Percent Solids	85.6	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A3B050153

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B050153-001	**Work Order #...:** FG5VT1AC		**Matrix.....:** SO
Date Sampled...: 02/03/03 13:15	**Date Received..:** 02/05/03		
Prep Date.....: 02/10/03	**Analysis Date..:** 02/10/03		
Prep Batch #...: 3042230			
Dilution Factor: 0.83			
% Moisture.....: 14	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.7	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.7	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.7	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.7	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	ND	4.8	ug/kg
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichloro-benzene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B050153-001 Work Order #...: FG5VT1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	ND	4.8	ug/kg
Trichlorofluoromethane	ND	9.7	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	85	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 0'-2'

General Chemistry

Lot-Sample #...: A3B050153-001 Work Order #...: FG5VT Matrix.....: SO
Date Sampled...: 02/03/03 13:15 Date Received..: 02/05/03
% Moisture.....: 14

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.6	10.0	%	MCAWW 160.3 MOD	02/05-02/06/03	3036416

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO. 1

GC/MS Volatiles

Lot-Sample #...: A3B050153-002 Work Order #...: FG5VX1AA Matrix.....: WQ
Date Sampled...: 02/04/03 Date Received..: 02/05/03
Prep Date.....: 02/11/03 Analysis Date..: 02/11/03
Prep Batch #...: 3043164
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	50	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO. 1

GC/MS Volatiles

Lot-Sample #...: A3B050153-002 Work Order #...: FG5VX1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	79	(73 - 122)
1,2-Dichloroethane-d4	75	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: RINSATE BLANK

GC/MS Volatiles

Lot-Sample #...: A3B050153-003 **Work Order #...:** FG5V31AA **Matrix.....:** WQ
Date Sampled...: 02/04/03 13:30 **Date Received..:** 02/05/03
Prep Date.....: 02/11/03 **Analysis Date..:** 02/11/03
Prep Batch #...: 3043164
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	50	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: RINSATE BLANK

GC/MS Volatiles

Lot-Sample #...: A3B050153-003 Work Order #...: FG5V31AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	77	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B050153 **Work Order #...:** FHEFN1AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B110000-230

Prep Date.....: 02/10/03
Analysis Date..: 02/10/03 **Prep Batch #...:** 3042230
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B050153 **Work Order #...:** FHEFN1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	83	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B050153 **Work Order #...:** FHF2X1AA **Matrix.....:** WATER
MB Lot-Sample #: A3B120000-164

Prep Date.....: 02/11/03
Analysis Date..: 02/11/03 **Prep Batch #...:** 3043164
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B050153 **Work Order #...:** FHF2X1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	79	(73 - 122)
1,2-Dichloroethane-d4	79	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3B050153 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FG6T11AA		MB Lot-Sample #:	A3B050000-416	
	ND	10.0	%	MCAWW 160.3 MOD	02/05-02/06/03	3036416
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B050153 **Work Order #...:** FHEFN1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B110000-230 FHEFN1AD-LCSD
Prep Date.....: 02/10/03 **Analysis Date..:** 02/10/03
Prep Batch #...: 3042230
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**85**	**(55 - 142)**			**SW846 8260B**
	104	**(55 - 142)**	**20**	**(0-27)**	**SW846 8260B**
Trichloroethene	**77**	**(70 - 131)**			**SW846 8260B**
	89	**(70 - 131)**	**15**	**(0-23)**	**SW846 8260B**
Benzene	**83**	**(75 - 129)**			**SW846 8260B**
	97	**(75 - 129)**	**15**	**(0-20)**	**SW846 8260B**
Toluene	**78**	**(71 - 130)**			**SW846 8260B**
	91	**(71 - 130)**	**16**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**83**	**(75 - 127)**			**SW846 8260B**
	98	**(75 - 127)**	**16**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(59 - 138)
	85	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
	83	(61 - 130)
Toluene-d8	84	(60 - 143)
	85	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)
	102	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B050153 **Work Order #...:** FHF2X1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3B120000-164 FHF2X1AD-LCSD
Prep Date.....: 02/11/03 **Analysis Date..:** 02/11/03
Prep Batch #...: 3043164
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**91**	**(63 - 130)**			**SW846 8260B**
	93	**(63 - 130)**	**2.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**78**	**(75 - 122)**			**SW846 8260B**
	77	**(75 - 122)**	**0.21**	**(0-20)**	**SW846 8260B**
Benzene	**85**	**(80 - 116)**			**SW846 8260B**
	85	**(80 - 116)**	**0.49**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(74 - 119)**			**SW846 8260B**
	95	**(74 - 119)**	**0.11**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**93**	**(76 - 117)**			**SW846 8260B**
	92	**(76 - 117)**	**1.3**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
	78	(73 - 122)
1,2-Dichloroethane-d4	81	(61 - 128)
	81	(61 - 128)
Toluene-d8	92	(76 - 110)
	91	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)
	92	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A3B050153	**Work Order #...:**	FG5W71AN-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	A3B050157-001		FG5W71AP-MSD		
Date Sampled...:	02/04/03 13:00	**Date Received..:**	02/05/03		
Prep Date.....:	02/11/03	**Analysis Date..:**	02/11/03		
Prep Batch #...:	3043164				
Dilution Factor:	666.67				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**86**	**(62 - 130)**			**SW846 8260B**
	94	**(62 - 130)**	**8.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**76**	**(62 - 130)**			**SW846 8260B**
	82	**(62 - 130)**	**7.7**	**(0-20)**	**SW846 8260B**
Benzene	**86**	**(78 - 118)**			**SW846 8260B**
	90	**(78 - 118)**	**5.3**	**(0-20)**	**SW846 8260B**
Toluene	**92**	**(70 - 119)**			**SW846 8260B**
	97	**(70 - 119)**	**5.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**88**	**(76 - 117)**			**SW846 8260B**
	94	**(76 - 117)**	**5.8**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	77	(73 - 122)
	81	(73 - 122)
1,2-Dichloroethane-d4	80	(61 - 128)
	85	(61 - 128)
Toluene-d8	88	(76 - 110)
	90	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)
	91	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B050153 **Work Order #...:** FGMEE-SMP FGMEE-DUP **Matrix.....:** SOLID

Date Sampled...: 01/20/03 14:30 **Date Received..:** 01/24/03

% Moisture.....: 9.4

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3A240272-018		
	90.6	86.6	%	4.5	(0-20)	MCAWW 160.3 MOD	02/05-02/06/03	3036416

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B050153 **Work Order #...:** FG57J-SMP FG57J-DUP **Matrix.....:** SOLID

Date Sampled...: 02/04/03 11:35 **Date Received..:** 02/05/03

% Moisture.....: 17

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B050176-023		
	82.8	84.6	%	2.1	(0-20)	MCAWW 160.3 MOD	02/05-02/06/03	3036416

Dilution Factor: 1

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL 4124 (0700)

Client	Project Manager	Date	Chain of Custody Number
MacTec	Rhonda Quinn	2/4/03	027026

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
3200 Town Point Dr. Suite 100	(770) 421-3400 / (770) 421-3486		Page 1 of 1

City	State	Zip Code	Site Contact	Lab Contact
Kennesaw	GA	30144	Bob Seymour	Roger Toth

Project Name and Location (State)	Carrier/Waybill Number
TK Louisville / GA	Fed Ex: 837652971710

Contract/Purchase Order/Quote No.

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	8260B	Special Instructions/ Conditions of Receipt
SB-113 : 0'-2'	2/3/03	13:15				X	4						3	1		For questions Call
Trip Blank No. 1	2/4/03	—		X						2					2	Rhonda Quinn at
Rinsate Blank	2/4/03	13:30		X						3					3	(770) 421-3400

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
R. A. Seymour To Fed Ex	2/4/03	14:00	[illegible]	2/5/03	9:20
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

SAMPLE SUMMARY

A3B060250

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FG8G2	001	SB-113: 0'-2'	02/05/03	11:10
FG8G7	002	SB-113: 4'-6'	02/05/03	11:20
FG8HD	003	SB-113: 40'-42'	02/05/03	10:45
FG8HF	004	SB-113: UPPERMOST 43.5-47.5	02/05/03	11:00
FG8HH	005	SB-113: TWIGGS CLAY 57-62	02/05/03	12:45
FG8HJ	006	TRIP BLANK NO. 2	02/05/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3B060250

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

March 5, 2003

CASE NARRATIVE

A3B060250

The following report contains the analytical results for two water samples, four solid samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK Louisville/GA site. The samples were received on February 6, 2003, according to documented sample acceptance procedures.

The Grain Size and Permeability analyses were performed at the STL Burlington laboratory. A copy of their data is provided in this report.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 27, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the coolers upon sample receipt was 14.8 and 2.6° C.

See STL's Cooler Receipt Form for additional information.

GC/MS VOLATILES

Sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The Method Blank associated with batch 3056363 contained concentration of target analyte(s) above reportable levels and outside acceptance criteria. The analytes were not detected in the associated sample.

The solid samples were preserved by freezing in water.

CASE NARRATIVE (continued)

GC/MS VOLATILES (continued)

Sample SB-113: 0'-2' had elevated reporting limits due to matrix interferences.

STL BURLINGTON

Please refer to the data provided by STL Burlington.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:
Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048),
Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001),
New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024),
Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003),
Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY,
USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3B060250

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-113: 0'-2' 02/05/03 11:10 001				
Methylene chloride	6.6 B	2.0	ug/L	SW846 8260B
SB-113: 4'-6' 02/05/03 11:20 002				
Trichloroethene	9.4	5.1	ug/kg	SW846 8260B
Percent Solids	83.5	10.0	%	MCAWW 160.3 MOD
SB-113: 40'-42' 02/05/03 10:45 003				
Percent Solids	93.8	10.0	%	MCAWW 160.3 MOD
SB-113: UPPERMOST 02/05/03 11:00 004				
Trichloroethene	93	3.3	ug/L	SW846 8260B
SB-113: TWIGGS CLAY 02/05/03 12:45 005				
Chloroform	1.2	1.0	ug/L	SW846 8260B
Trichloroethene	20	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3B060250

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 0'-2'

SPLP GC/MS Volatiles

Lot-Sample #...:	A3B060250-001	**Work Order #...:**	FG8G21AA	**Matrix.....:**	SO
Date Sampled...:	02/05/03 11:10	**Date Received..:**	02/06/03		
Leach Date.....:	02/19/03	**Prep Date.....:**	02/25/03	**Analysis Date..:**	02/25/03
Leach Batch #..:	P305102	**Prep Batch #...:**	3056363		
Dilution Factor:	2				
% Moisture.....:		**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Chlorodibromomethane	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
1,2-Dichlorobenzene	ND	2.0	ug/L
1,3-Dichlorobenzene	ND	2.0	ug/L
1,4-Dichlorobenzene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	2.0	ug/L
1,2-Dichloroethane	ND	2.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
1,3-Dichloropropane	ND	2.0	ug/L
2,2-Dichloropropane	ND	2.0	ug/L
1,1-Dichloropropene	ND	2.0	ug/L
1,4-Dioxane	ND	400	ug/L
Ethylbenzene	ND	2.0	ug/L
Hexachlorobutadiene	ND	2.0	ug/L
Isopropylbenzene	ND	2.0	ug/L
Methylene chloride	**6.6 B**	**2.0**	**ug/L**
Naphthalene	ND	2.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Toluene	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	2.0	ug/L
1,1,1-Trichloroethane	ND	2.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 0'-2'

SPLP GC/MS Volatiles

Lot-Sample #...: A3B060250-001 Work Order #...: FG8G21AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(59 - 138)
1,2-Dichloroethane-d4	86	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	94	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Elevated reporting limits due to matrix interference.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 4'-6'

GC/MS Volatiles

Lot-Sample #...: A3B060250-002 **Work Order #...:** FG8G71AC **Matrix.....:** SO
Date Sampled...: 02/05/03 11:20 **Date Received..:** 02/06/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3044515
Dilution Factor: 0.85
% Moisture.....: 17 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.1	ug/kg
Bromodichloromethane	ND	5.1	ug/kg
Bromoform	ND	5.1	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.1	ug/kg
Chlorobenzene	ND	5.1	ug/kg
Chlorodibromomethane	ND	5.1	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.1	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.1	ug/kg
1,2-Dichlorobenzene	ND	5.1	ug/kg
1,3-Dichlorobenzene	ND	5.1	ug/kg
1,4-Dichlorobenzene	ND	5.1	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.1	ug/kg
1,2-Dichloroethane	ND	5.1	ug/kg
cis-1,2-Dichloroethene	ND	5.1	ug/kg
trans-1,2-Dichloroethene	ND	5.1	ug/kg
1,1-Dichloroethene	ND	5.1	ug/kg
1,2-Dichloropropane	ND	5.1	ug/kg
1,3-Dichloropropane	ND	5.1	ug/kg
2,2-Dichloropropane	ND	5.1	ug/kg
1,1-Dichloropropene	ND	5.1	ug/kg
1,4-Dioxane	ND	250	ug/kg
Ethylbenzene	ND	5.1	ug/kg
Hexachlorobutadiene	ND	5.1	ug/kg
Isopropylbenzene	ND	5.1	ug/kg
Methylene chloride	ND	5.1	ug/kg
Naphthalene	ND	5.1	ug/kg
Styrene	ND	5.1	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg
Tetrachloroethene	ND	5.1	ug/kg
Toluene	ND	5.1	ug/kg
1,2,4-Trichloro-benzene	ND	5.1	ug/kg
1,1,1-Trichloroethane	ND	5.1	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 4'-6'

GC/MS Volatiles

Lot-Sample #...: A3B060250-002 **Work Order #...:** FG8G71AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.1	ug/kg
Trichloroethene	**9.4**	**5.1**	**ug/kg**
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.1	ug/kg
Vinyl chloride	ND	5.1	ug/kg
Xylenes (total)	ND	5.1	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	88	(60 - 143)
4-Bromofluorobenzene	104	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 4'-6'

General Chemistry

Lot-Sample #...: A3B060250-002 **Work Order #...:** FG8G7 **Matrix.....:** SO
Date Sampled...: 02/05/03 11:20 **Date Received..:** 02/06/03
% Moisture.....: 17

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	83.5	10.0	%	MCAWW 160.3 MOD	02/07-02/10/03	3038316

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 40'-42'

GC/MS Volatiles

Lot-Sample #...: A3B060250-003 **Work Order #...:** FG8HD1AC **Matrix.....:** SO
Date Sampled...: 02/05/03 10:45 **Date Received..:** 02/06/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3044515
Dilution Factor: 1.06
% Moisture.....: 6.2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.7	ug/kg
Bromodichloromethane	ND	5.7	ug/kg
Bromoform	ND	5.7	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.7	ug/kg
Chlorobenzene	ND	5.7	ug/kg
Chlorodibromomethane	ND	5.7	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.7	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.7	ug/kg
1,2-Dichlorobenzene	ND	5.7	ug/kg
1,3-Dichlorobenzene	ND	5.7	ug/kg
1,4-Dichlorobenzene	ND	5.7	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.7	ug/kg
1,2-Dichloroethane	ND	5.7	ug/kg
cis-1,2-Dichloroethene	ND	5.7	ug/kg
trans-1,2-Dichloroethene	ND	5.7	ug/kg
1,1-Dichloroethene	ND	5.7	ug/kg
1,2-Dichloropropane	ND	5.7	ug/kg
1,3-Dichloropropane	ND	5.7	ug/kg
2,2-Dichloropropane	ND	5.7	ug/kg
1,1-Dichloropropene	ND	5.7	ug/kg
1,4-Dioxane	ND	280	ug/kg
Ethylbenzene	ND	5.7	ug/kg
Hexachlorobutadiene	ND	5.7	ug/kg
Isopropylbenzene	ND	5.7	ug/kg
Methylene chloride	ND	5.7	ug/kg
Naphthalene	ND	5.7	ug/kg
Styrene	ND	5.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg
Tetrachloroethene	ND	5.7	ug/kg
Toluene	ND	5.7	ug/kg
1,2,4-Trichloro-benzene	ND	5.7	ug/kg
1,1,1-Trichloroethane	ND	5.7	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 40'-42'

GC/MS Volatiles

Lot-Sample #...: A3B060250-003 Work Order #...: FG8HD1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.7	ug/kg
Trichloroethene	ND	5.7	ug/kg
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.7	ug/kg
Vinyl chloride	ND	5.7	ug/kg
Xylenes (total)	ND	5.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	85	(61 - 130)
Toluene-d8	89	(60 - 143)
4-Bromofluorobenzene	102	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: 40'-42'

General Chemistry

Lot-Sample #...: A3B060250-003 Work Order #...: FG8HD Matrix.....: SO
Date Sampled...: 02/05/03 10:45 Date Received..: 02/06/03
% Moisture.....: 6.2

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	93.8	10.0	%	MCAWW 160.3 MOD	02/07-02/10/03	3038316

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO. 2

GC/MS Volatiles

Lot-Sample #...: A3B060250-006 **Work Order #...:** FG8HJ1AA **Matrix.....:** WQ
Date Sampled...: 02/05/03 **Date Received..:** 02/06/03
Prep Date.....: 02/12/03 **Analysis Date..:** 02/12/03
Prep Batch #...: 3044145
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	50	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO. 2

GC/MS Volatiles

Lot-Sample #...: A3B060250-006 Work Order #...: FG8HJ1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	75	(73 - 122)
1,2-Dichloroethane-d4	74	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FHHV81AA **Matrix.....:** WATER
MB Lot-Sample #: A3B130000-145

Prep Date.....: 02/12/03
Analysis Date..: 02/12/03 **Prep Batch #...:** 3044145
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FHHV81AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	75	(73 - 122)
1,2-Dichloroethane-d4	73	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	81	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FHK351AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B130000-515

Prep Date.....: 02/12/03
Analysis Date..: 02/12/03 **Prep Batch #...:** 3044515
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FHK351AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	114	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

SPLP GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FHWRE1AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B200000-104
Leach Date.....: 02/19/03 **Prep Date.....:** 02/25/03 **Analysis Date..:** 02/25/03
Leach Batch #..: P305102 **Prep Batch #...:** 3056363
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	**1.2**	**1.0**	**ug/L**	**SW846 8260B**
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**2.1**	**1.0**	**ug/L**	**SW846 8260B**
Naphthalene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	**1.5**	**1.0**	**ug/L**	**SW846 8260B**
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

SPLP GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FHWRE1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	98	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3B060250 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FHAAC1AA		MB Lot-Sample #:	A3B070000-316	
	ND	10.0	%	MCAWW 160.3 MOD	02/07-02/10/03	3038316
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FHHV81AC **Matrix.....:** WATER
LCS Lot-Sample#: A3B130000-145
Prep Date.....: 02/12/03 **Analysis Date..:** 02/12/03
Prep Batch #...: 3044145
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**89**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**76**	**(75 - 122)**	**SW846 8260B**
Benzene	**86**	**(80 - 116)**	**SW846 8260B**
Toluene	**96**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**94**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	77	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FHK351AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B130000-515 FHK351AD-LCSD
Prep Date.....: 02/12/03 **Analysis Date..:** 02/12/03
Prep Batch #...: 3044515
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**105**	**(55 - 142)**			**SW846 8260B**
	103	**(55 - 142)**	**1.5**	**(0-27)**	**SW846 8260B**
Trichloroethene	**97**	**(70 - 131)**			**SW846 8260B**
	96	**(70 - 131)**	**1.4**	**(0-23)**	**SW846 8260B**
Benzene	**106**	**(75 - 129)**			**SW846 8260B**
	105	**(75 - 129)**	**0.54**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(71 - 130)**			**SW846 8260B**
	94	**(71 - 130)**	**2.9**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**101**	**(75 - 127)**			**SW846 8260B**
	98	**(75 - 127)**	**2.4**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(59 - 138)
	89	(59 - 138)
1,2-Dichloroethane-d4	86	(61 - 130)
	87	(61 - 130)
Toluene-d8	90	(60 - 143)
	91	(60 - 143)
4-Bromofluorobenzene	102	(47 - 158)
	105	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FH6QA1AA-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B250000-363 FH6QA1AC-LCSD
Prep Date.....: 02/25/03 **Analysis Date..:** 02/25/03
Prep Batch #...: 3056363
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**91**	**(55 - 142)**			**SW846 8260B**
	88	**(55 - 142)**	**2.9**	**(0-27)**	**SW846 8260B**
Trichloroethene	**88**	**(70 - 131)**			**SW846 8260B**
	88	**(70 - 131)**	**0.30**	**(0-23)**	**SW846 8260B**
Benzene	**92**	**(75 - 129)**			**SW846 8260B**
	95	**(75 - 129)**	**2.9**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(71 - 130)**			**SW846 8260B**
	98	**(71 - 130)**	**0.72**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**100**	**(75 - 127)**			**SW846 8260B**
	98	**(75 - 127)**	**1.8**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
	94	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
	92	(61 - 130)
Toluene-d8	96	(60 - 143)
	98	(60 - 143)
4-Bromofluorobenzene	101	(47 - 158)
	103	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B060250 **Work Order #...:** FG8HF1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A3B060250-004 FG8HF1AD-MSD
Date Sampled...: 02/05/03 11:00 **Date Received..:** 02/06/03
Prep Date.....: 02/12/03 **Analysis Date..:** 02/12/03
Prep Batch #...: 3044145
Dilution Factor: 3.33

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**96**	**(62 - 130)**			**SW846 8260B**
	95	**(62 - 130)**	**1.4**	**(0-20)**	**SW846 8260B**
Trichloroethene	**52 a**	**(62 - 130)**			**SW846 8260B**
	44 a	**(62 - 130)**	**2.7**	**(0-20)**	**SW846 8260B**
Benzene	**90**	**(76 - 118)**			**SW846 8260B**
	89	**(76 - 118)**	**1.9**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(70 - 119)**			**SW846 8260B**
	95	**(70 - 119)**	**2.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**94**	**(76 - 117)**			**SW846 8260B**
	93	**(76 - 117)**	**1.8**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
	78	(73 - 122)
1,2-Dichloroethane-d4	81	(61 - 128)
	80	(61 - 128)
Toluene-d8	91	(76 - 110)
	86	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)
	86	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B060250 **Work Order #...:** FG7V4-SMP FG7V4-DUP **Matrix.....:** SOLID

Date Sampled...: 02/05/03 14:40 **Date Received..:** 02/06/03

% Moisture.....: 8.8

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B060151-020		
	91.2	92.3	%	1.3	(0-20)	MCAWW 160.3 MOD	02/07-02/10/03	3038316

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B060250 **Work Order #...:** FG8G7-SMP FG8G7-DUP **Matrix.....:** SO

Date Sampled...: 02/05/03 11:20 **Date Received..:** 02/06/03

% Moisture.....: 17

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B060250-002		
	83.5	83.5	%	0.049	(0-20)	MCAWW 160.3 MOD	02/07-02/10/03	3038316

Dilution Factor: 1

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MacTec, Inc.	Rhonda Quinn	2/5/03	163929
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr. Suite 100	(770) 421-3400 / (770)421-3486		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bob Seymour	Roger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville / GA	Fed Ex: 837652971662		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	VOA/SPLP	8260B		Physical Test							Special Instructions/ Conditions of Receipt
SB-113: 0'-2'	2/5/03	11:10				X	2								2										For questions
SB-113: 4'-6'	2/5	11:20				X	4						3	1											call Rhonda Quinn
SB-113: 40'-42'	2/5	10:45				X	4						3	1											at (770) 421-3400
SB-113: Uppermost	2/5	11:00		X						3						3									
SB-113: Twiggs Clay	2/5	12:45		X						3						3									Shelby Tube
Trip Blank No. 2	2/5	—								2						2									shipped separately
SB-113: 43'-45' (Shelby Tube)						X	1											1							

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: R. A. Seymour To: Fed Ex	2/5/03	14:00	1. Received By: [illegible]	2/10/03	1015
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3B070115

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FG9LV	001	SB-114:0'-2'	02/05/03	15:30
FG9LX	002	SB-114:22'-24'	02/05/03	17:15
FG9L0	003	SB-114:42'-44'	02/05/03	17:30
FG9L2	004	SB-114:UPPERMOST 45-48	02/05/03	17:10
FG9L3	005	SB-114:TWIGGS CLAY 60-65	02/06/03	08:30
FG9L4	006	TRIP BLANK NO. 3	02/06/03	
FG9L5	007	SB-101:0'-2'	02/06/03	10:45
FG9L6	008	SB-101:12'-14'	02/06/03	12:10
FG9L7	009	SB-101:36'-38'	02/06/03	12:20
FG9L9	010	SB-201:6'-8'	02/06/03	09:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3B070115

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

February 28, 2003

CASE NARRATIVE

A3B070115

The following report contains the analytical results for two water samples, seven solid samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK Louisville, GA site. The samples were received on February 7, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 27, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.0° C.

GC/MS VOLATILES

Sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants. Chloroform and Toluene were not detected in the sample.

The solid samples were preserved by freezing in water.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3B070115

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-114:0'-2' 02/05/03 15:30 001				
Trichloroethene	130	4.8	ug/kg	SW846 8260B
Percent Solids	84.6	10.0	%	MCAWW 160.3 MOD
SB-114:22'-24' 02/05/03 17:15 002				
Methylene chloride	3.4 B	1.0	ug/L	SW846 8260B
Percent Solids	89.9	10.0	%	MCAWW 160.3 MOD
SB-114:42'-44' 02/05/03 17:30 003				
Percent Solids	91.8	10.0	%	MCAWW 160.3 MOD
SB-114:UPPERMOST 02/05/03 17:10 004				
cis-1,2-Dichloroethene	27	12	ug/L	SW846 8260B
1,1-Dichloroethene	72	25	ug/L	SW846 8260B
1,1,1-Trichloroethane	270	25	ug/L	SW846 8260B
Trichloroethene	700	25	ug/L	SW846 8260B
SB-114:TWIGGS CLAY 02/06/03 08:30 005				
Chloroform	1.0	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	2.7	1.0	ug/L	SW846 8260B
Trichloroethene	13	1.0	ug/L	SW846 8260B
SB-101:0'-2' 02/06/03 10:45 007				
Percent Solids	91.6	10.0	%	MCAWW 160.3 MOD
SB-101:12'-14' 02/06/03 12:10 008				
Percent Solids	85.3	10.0	%	MCAWW 160.3 MOD
SB-101:36'-38' 02/06/03 12:20 009				
Percent Solids	95.4	10.0	%	MCAWW 160.3 MOD
SB-201:6'-8' 02/06/03 09:30 010				
Percent Solids	90.6	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A3B070115

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B070115-001 **Work Order #...:** FG9LV1AC **Matrix.....:** SO
Date Sampled...: 02/05/03 15:30 **Date Received..:** 02/07/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3045470
Dilution Factor: 0.82
% Moisture.....: 15 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.7	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.7	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.7	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.7	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	ND	4.8	ug/kg
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichloro-benzene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B070115-001 Work Order #...: FG9LV1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	**130**	**4.8**	**ug/kg**
Trichlorofluoromethane	ND	9.7	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	75	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:0'-2'

General Chemistry

Lot-Sample #...: A3B070115-001 Work Order #...: FG9LV Matrix.....: SO
Date Sampled...: 02/05/03 15:30 Date Received..: 02/07/03
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.6	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042283

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:22'-24'

GC/MS Volatiles

Lot-Sample #...: A3B070115-002 Work Order #...: FG9LX1AC Matrix.....: SO
Date Sampled...: 02/05/03 17:15 Date Received..: 02/07/03
Prep Date.....: 02/13/03 Analysis Date..: 02/13/03
Prep Batch #...: 3044515
Dilution Factor: 0.89
% Moisture.....: 10 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.9	ug/kg
Bromodichloromethane	ND	4.9	ug/kg
Bromoform	ND	4.9	ug/kg
Bromomethane	ND	9.9	ug/kg
Carbon tetrachloride	ND	4.9	ug/kg
Chlorobenzene	ND	4.9	ug/kg
Chlorodibromomethane	ND	4.9	ug/kg
Chloroethane	ND	9.9	ug/kg
Chloroform	ND	4.9	ug/kg
Chloromethane	ND	9.9	ug/kg
Dibromomethane	ND	4.9	ug/kg
1,2-Dichlorobenzene	ND	4.9	ug/kg
1,3-Dichlorobenzene	ND	4.9	ug/kg
1,4-Dichlorobenzene	ND	4.9	ug/kg
Dichlorodifluoromethane	ND	9.9	ug/kg
1,1-Dichloroethane	ND	4.9	ug/kg
1,2-Dichloroethane	ND	4.9	ug/kg
cis-1,2-Dichloroethene	ND	4.9	ug/kg
trans-1,2-Dichloroethene	ND	4.9	ug/kg
1,1-Dichloroethene	ND	4.9	ug/kg
1,2-Dichloropropane	ND	4.9	ug/kg
1,3-Dichloropropane	ND	4.9	ug/kg
2,2-Dichloropropane	ND	4.9	ug/kg
1,1-Dichloropropene	ND	4.9	ug/kg
1,4-Dioxane	ND	250	ug/kg
Ethylbenzene	ND	4.9	ug/kg
Hexachlorobutadiene	ND	4.9	ug/kg
Isopropylbenzene	ND	4.9	ug/kg
Methylene chloride	ND	4.9	ug/kg
Naphthalene	ND	4.9	ug/kg
Styrene	ND	4.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.9	ug/kg
Tetrachloroethene	ND	4.9	ug/kg
Toluene	ND	4.9	ug/kg
1,2,4-Trichloro-benzene	ND	4.9	ug/kg
1,1,1-Trichloroethane	ND	4.9	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:22'-24'

GC/MS Volatiles

Lot-Sample #...: A3B070115-002 Work Order #...: FG9LX1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.9	ug/kg
Trichloroethene	ND	4.9	ug/kg
Trichlorofluoromethane	ND	9.9	ug/kg
1,2,3-Trichloropropane	ND	4.9	ug/kg
Vinyl chloride	ND	4.9	ug/kg
Xylenes (total)	ND	4.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	86	(60 - 143)
4-Bromofluorobenzene	101	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:22'-24'

SPLP GC/MS Volatiles

Lot-Sample #...:	A3B070115-002	**Work Order #...:**	FG9LX1AE	**Matrix.....:**	SO
Date Sampled...:	02/05/03 17:15	**Date Received..:**	02/07/03		
Leach Date.....:	02/19/03	**Prep Date.....:**	02/25/03	**Analysis Date..:**	02/25/03
Leach Batch #..:	P305102	**Prep Batch #...:**	3056363		
Dilution Factor:	1				
% Moisture.....:	10	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**3.4 B**	**1.0**	**ug/L**
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:22'-24'

SPLP GC/MS Volatiles

Lot-Sample #...: A3B070115-002 **Work Order #...:** FG9LX1AE **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(59 - 138)
1,2-Dichloroethane-d4	90	(61 - 130)
Toluene-d8	95	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:22'-24'

General Chemistry

Lot-Sample #...: A3B070115-002 Work Order #...: FG9LX Matrix.....: SO
Date Sampled...: 02/05/03 17:15 Date Received..: 02/07/03
% Moisture.....: 10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	89.9	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042283

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:42'-44'

GC/MS Volatiles

Lot-Sample #...: A3B070115-003	**Work Order #...:** FG9L01AC	**Matrix.....:** SO	
Date Sampled...: 02/05/03 17:30	**Date Received..:** 02/07/03		
Prep Date.....: 02/13/03	**Analysis Date..:** 02/13/03		
Prep Batch #...: 3044515			
Dilution Factor: 0.96			
% Moisture.....: 8.2	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.2	ug/kg
Bromodichloromethane	ND	5.2	ug/kg
Bromoform	ND	5.2	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.2	ug/kg
Chlorobenzene	ND	5.2	ug/kg
Chlorodibromomethane	ND	5.2	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.2	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.2	ug/kg
1,2-Dichlorobenzene	ND	5.2	ug/kg
1,3-Dichlorobenzene	ND	5.2	ug/kg
1,4-Dichlorobenzene	ND	5.2	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.2	ug/kg
1,2-Dichloroethane	ND	5.2	ug/kg
cis-1,2-Dichloroethene	ND	5.2	ug/kg
trans-1,2-Dichloroethene	ND	5.2	ug/kg
1,1-Dichloroethene	ND	5.2	ug/kg
1,2-Dichloropropane	ND	5.2	ug/kg
1,3-Dichloropropane	ND	5.2	ug/kg
2,2-Dichloropropane	ND	5.2	ug/kg
1,1-Dichloropropene	ND	5.2	ug/kg
1,4-Dioxane	ND	260	ug/kg
Ethylbenzene	ND	5.2	ug/kg
Hexachlorobutadiene	ND	5.2	ug/kg
Isopropylbenzene	ND	5.2	ug/kg
Methylene chloride	ND	5.2	ug/kg
Naphthalene	ND	5.2	ug/kg
Styrene	ND	5.2	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.2	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg
Tetrachloroethene	ND	5.2	ug/kg
Toluene	ND	5.2	ug/kg
1,2,4-Trichloro-benzene	ND	5.2	ug/kg
1,1,1-Trichloroethane	ND	5.2	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:42'-44'

GC/MS Volatiles

Lot-Sample #...: A3B070115-003 **Work Order #...:** FG9L01AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.2	ug/kg
Trichloroethene	ND	5.2	ug/kg
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.2	ug/kg
Vinyl chloride	ND	5.2	ug/kg
Xylenes (total)	ND	5.2	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	89	(60 - 143)
4-Bromofluorobenzene	101	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:42'-44'

General Chemistry

Lot-Sample #...: A3B070115-003 Work Order #...: FG9L0 Matrix.....: SO
Date Sampled...: 02/05/03 17:30 Date Received..: 02/07/03
% Moisture.....: 8.2

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	91.8	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042283

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO. 3

GC/MS Volatiles

Lot-Sample #...: A3B070115-006	**Work Order #...:** FG9L41AA	**Matrix.....:** WQ	
Date Sampled...: 02/06/03	**Date Received..:** 02/07/03		
Prep Date.....: 02/11/03	**Analysis Date..:** 02/11/03		
Prep Batch #...: 3043288			
Dilution Factor: 1	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	50	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK NO. 3

GC/MS Volatiles

Lot-Sample #...: A3B070115-006 **Work Order #...:** FG9L41AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-101:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B070115-007 **Work Order #...:** FG9L51AC **Matrix.....:** SO
Date Sampled...: 02/06/03 10:45 **Date Received..:** 02/07/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3044515
Dilution Factor: 0.88
% Moisture.....: 8.4 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.6	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.6	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.6	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.6	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	ND	4.8	ug/kg
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	ND	4.8	ug/kg
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichloro-benzene	ND	4.8	ug/kg
1,1,1-Trichloroethane	ND	4.8	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-101:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3B070115-007 **Work Order #...:** FG9L51AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.8	ug/kg
Trichloroethene	ND	4.8	ug/kg
Trichlorofluoromethane	ND	9.6	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	88	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-101:0'-2'

General Chemistry

Lot-Sample #...: A3B070115-007 **Work Order #...:** FG9L5 **Matrix.....:** SO
Date Sampled...: 02/06/03 10:45 **Date Received..:** 02/07/03
% Moisture.....: 8.4

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	91.6	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042283

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-101:12'-14'

GC/MS Volatiles

Lot-Sample #...: A3B070115-008 **Work Order #...:** FG9L61AC **Matrix.....:** SO
Date Sampled...: 02/06/03 12:10 **Date Received..:** 02/07/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3044515
Dilution Factor: 0.83
% Moisture.....: 15 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.9	ug/kg
Bromodichloromethane	ND	4.9	ug/kg
Bromoform	ND	4.9	ug/kg
Bromomethane	ND	9.7	ug/kg
Carbon tetrachloride	ND	4.9	ug/kg
Chlorobenzene	ND	4.9	ug/kg
Chlorodibromomethane	ND	4.9	ug/kg
Chloroethane	ND	9.7	ug/kg
Chloroform	ND	4.9	ug/kg
Chloromethane	ND	9.7	ug/kg
Dibromomethane	ND	4.9	ug/kg
1,2-Dichlorobenzene	ND	4.9	ug/kg
1,3-Dichlorobenzene	ND	4.9	ug/kg
1,4-Dichlorobenzene	ND	4.9	ug/kg
Dichlorodifluoromethane	ND	9.7	ug/kg
1,1-Dichloroethane	ND	4.9	ug/kg
1,2-Dichloroethane	ND	4.9	ug/kg
cis-1,2-Dichloroethene	ND	4.9	ug/kg
trans-1,2-Dichloroethene	ND	4.9	ug/kg
1,1-Dichloroethene	ND	4.9	ug/kg
1,2-Dichloropropane	ND	4.9	ug/kg
1,3-Dichloropropane	ND	4.9	ug/kg
2,2-Dichloropropane	ND	4.9	ug/kg
1,1-Dichloropropene	ND	4.9	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.9	ug/kg
Hexachlorobutadiene	ND	4.9	ug/kg
Isopropylbenzene	ND	4.9	ug/kg
Methylene chloride	ND	4.9	ug/kg
Naphthalene	ND	4.9	ug/kg
Styrene	ND	4.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.9	ug/kg
Tetrachloroethene	ND	4.9	ug/kg
Toluene	ND	4.9	ug/kg
1,2,4-Trichloro-benzene	ND	4.9	ug/kg
1,1,1-Trichloroethane	ND	4.9	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-101:12'-14'

GC/MS Volatiles

Lot-Sample #...: A3B070115-008 Work Order #...: FG9L61AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.9	ug/kg
Trichloroethene	ND	4.9	ug/kg
Trichlorofluoromethane	ND	9.7	ug/kg
1,2,3-Trichloropropane	ND	4.9	ug/kg
Vinyl chloride	ND	4.9	ug/kg
Xylenes (total)	ND	4.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(59 - 138)
1,2-Dichloroethane-d4	86	(61 - 130)
Toluene-d8	89	(60 - 143)
4-Bromofluorobenzene	104	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-101:12'-14'

General Chemistry

Lot-Sample #...: A3B070115-008 Work Order #...: FG9L6 Matrix.....: SO
Date Sampled...: 02/06/03 12:10 Date Received..: 02/07/03
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.3	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042283

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-101:36'-38'

GC/MS Volatiles

Lot-Sample #...: A3B070115-009 **Work Order #...:** FG9L71AC **Matrix.....:** SO
Date Sampled...: 02/06/03 12:20 **Date Received..:** 02/07/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3044515
Dilution Factor: 1.14
% Moisture.....: 4.6 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	6.0	ug/kg
Bromodichloromethane	ND	6.0	ug/kg
Bromoform	ND	6.0	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	6.0	ug/kg
Chlorobenzene	ND	6.0	ug/kg
Chlorodibromomethane	ND	6.0	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	6.0	ug/kg
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	6.0	ug/kg
1,2-Dichlorobenzene	ND	6.0	ug/kg
1,3-Dichlorobenzene	ND	6.0	ug/kg
1,4-Dichlorobenzene	ND	6.0	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	6.0	ug/kg
1,2-Dichloroethane	ND	6.0	ug/kg
cis-1,2-Dichloroethene	ND	6.0	ug/kg
trans-1,2-Dichloroethene	ND	6.0	ug/kg
1,1-Dichloroethene	ND	6.0	ug/kg
1,2-Dichloropropane	ND	6.0	ug/kg
1,3-Dichloropropane	ND	6.0	ug/kg
2,2-Dichloropropane	ND	6.0	ug/kg
1,1-Dichloropropene	ND	6.0	ug/kg
1,4-Dioxane	ND	300	ug/kg
Ethylbenzene	ND	6.0	ug/kg
Hexachlorobutadiene	ND	6.0	ug/kg
Isopropylbenzene	ND	6.0	ug/kg
Methylene chloride	ND	6.0	ug/kg
Naphthalene	ND	6.0	ug/kg
Styrene	ND	6.0	ug/kg
1,1,1,2-Tetrachloroethane	ND	6.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	6.0	ug/kg
Tetrachloroethene	ND	6.0	ug/kg
Toluene	ND	6.0	ug/kg
1,2,4-Trichloro-benzene	ND	6.0	ug/kg
1,1,1-Trichloroethane	ND	6.0	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-101:36'-38'

GC/MS Volatiles

Lot-Sample #...: A3B070115-009 **Work Order #...:** FG9L71AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	6.0	ug/kg
Trichloroethene	ND	6.0	ug/kg
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	6.0	ug/kg
Vinyl chloride	ND	6.0	ug/kg
Xylenes (total)	ND	6.0	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
Toluene-d8	88	(60 - 143)
4-Bromofluorobenzene	102	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-101:36'-38'

General Chemistry

Lot-Sample #...: A3B070115-009 Work Order #...: FG9L7 Matrix.....: SO
Date Sampled...: 02/06/03 12:20 Date Received..: 02/07/03
% Moisture.....: 4.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	95.4	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042283

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-201:6'-8'

GC/MS Volatiles

Lot-Sample #...: A3B070115-010 **Work Order #...:** FG9L91AC **Matrix.....:** SO
Date Sampled...: 02/06/03 09:30 **Date Received..:** 02/07/03
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3044515
Dilution Factor: 0.85
% Moisture.....: 9.4 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.7	ug/kg
Bromodichloromethane	ND	4.7	ug/kg
Bromoform	ND	4.7	ug/kg
Bromomethane	ND	9.4	ug/kg
Carbon tetrachloride	ND	4.7	ug/kg
Chlorobenzene	ND	4.7	ug/kg
Chlorodibromomethane	ND	4.7	ug/kg
Chloroethane	ND	9.4	ug/kg
Chloroform	ND	4.7	ug/kg
Chloromethane	ND	9.4	ug/kg
Dibromomethane	ND	4.7	ug/kg
1,2-Dichlorobenzene	ND	4.7	ug/kg
1,3-Dichlorobenzene	ND	4.7	ug/kg
1,4-Dichlorobenzene	ND	4.7	ug/kg
Dichlorodifluoromethane	ND	9.4	ug/kg
1,1-Dichloroethane	ND	4.7	ug/kg
1,2-Dichloroethane	ND	4.7	ug/kg
cis-1,2-Dichloroethene	ND	4.7	ug/kg
trans-1,2-Dichloroethene	ND	4.7	ug/kg
1,1-Dichloroethene	ND	4.7	ug/kg
1,2-Dichloropropane	ND	4.7	ug/kg
1,3-Dichloropropane	ND	4.7	ug/kg
2,2-Dichloropropane	ND	4.7	ug/kg
1,1-Dichloropropene	ND	4.7	ug/kg
1,4-Dioxane	ND	230	ug/kg
Ethylbenzene	ND	4.7	ug/kg
Hexachlorobutadiene	ND	4.7	ug/kg
Isopropylbenzene	ND	4.7	ug/kg
Methylene chloride	ND	4.7	ug/kg
Naphthalene	ND	4.7	ug/kg
Styrene	ND	4.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg
Tetrachloroethene	ND	4.7	ug/kg
Toluene	ND	4.7	ug/kg
1,2,4-Trichloro-benzene	ND	4.7	ug/kg
1,1,1-Trichloroethane	ND	4.7	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-201:6'-8'

GC/MS Volatiles

Lot-Sample #...: A3B070115-010 Work Order #...: FG9L91AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.7	ug/kg
Trichloroethene	ND	4.7	ug/kg
Trichlorofluoromethane	ND	9.4	ug/kg
1,2,3-Trichloropropane	ND	4.7	ug/kg
Vinyl chloride	ND	4.7	ug/kg
Xylenes (total)	ND	4.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(59 - 138)
1,2-Dichloroethane-d4	85	(61 - 130)
Toluene-d8	87	(60 - 143)
4-Bromofluorobenzene	101	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-201:6'-8'

General Chemistry

Lot-Sample #...: A3B070115-010 Work Order #...: FG9L9 Matrix.....: SO
Date Sampled...: 02/06/03 09:30 Date Received..: 02/07/03
% Moisture.....: 9.4

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	90.6	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042283

Dilution Factor: 1

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHGP11AA **Matrix.....:** WATER
MB Lot-Sample #: A3B120000-288
Prep Date.....: 02/11/03
Analysis Date..: 02/11/03 **Prep Batch #...:** 3043288
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHGP11AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHK351AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B130000-515

Prep Date.....: 02/12/03
Analysis Date..: 02/12/03 **Prep Batch #...:** 3044515
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHK351AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	114	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHN0J1AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B140000-470

Prep Date.....: 02/13/03
Analysis Date..: 02/13/03 **Prep Batch #...:** 3045470
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B

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GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHN0J1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

SPLP GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHWRE1AA **Matrix.....:** SOLID
MB Lot-Sample #: A3B200000-104
Leach Date.....: 02/19/03 **Prep Date.....:** 02/25/03 **Analysis Date..:** 02/25/03
Leach Batch #..: P305102 **Prep Batch #...:** 3056363
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	**1.2**	**1.0**	**ug/L**	**SW846 8260B**
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**2.1**	**1.0**	**ug/L**	**SW846 8260B**
Naphthalene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	**1.5**	**1.0**	**ug/L**	**SW846 8260B**
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

SPLP GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHWRE1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	98	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3B070115 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FHEQ01AA		MB Lot-Sample #:	A3B110000-283	
	ND	10.0	%	MCAWW 160.3 MOD	02/11-02/12/03	3042283
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 Work Order #...: FHGP11AC Matrix.....: WATER
LCS Lot-Sample#: A3B120000-288
Prep Date.....: 02/11/03 Analysis Date..: 02/11/03
Prep Batch #...: 3043288
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**93**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**90**	**(75 - 122)**	**SW846 8260B**
Benzene	**93**	**(80 - 116)**	**SW846 8260B**
Toluene	**91**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**93**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHK351AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B130000-515 FHK351AD-LCSD
Prep Date.....: 02/12/03 **Analysis Date..:** 02/12/03
Prep Batch #...: 3044515
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**105**	**(55 - 142)**			**SW846 8260B**
	103	**(55 - 142)**	**1.5**	**(0-27)**	**SW846 8260B**
Trichloroethene	**97**	**(70 - 131)**			**SW846 8260B**
	96	**(70 - 131)**	**1.4**	**(0-23)**	**SW846 8260B**
Benzene	**106**	**(75 - 129)**			**SW846 8260B**
	105	**(75 - 129)**	**0.54**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(71 - 130)**			**SW846 8260B**
	94	**(71 - 130)**	**2.9**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**101**	**(75 - 127)**			**SW846 8260B**
	98	**(75 - 127)**	**2.4**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(59 - 138)
	89	(59 - 138)
1,2-Dichloroethane-d4	86	(61 - 130)
	87	(61 - 130)
Toluene-d8	90	(60 - 143)
	91	(60 - 143)
4-Bromofluorobenzene	102	(47 - 158)
	105	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FHN0J1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3B140000-470 FHN0J1AD-LCSD
Prep Date.....: 02/13/03 **Analysis Date..:** 02/13/03
Prep Batch #...: 3045470
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**102**	**(55 - 142)**			**SW846 8260B**
	102	**(55 - 142)**	**0.23**	**(0-27)**	**SW846 8260B**
Trichloroethene	**100**	**(70 - 131)**			**SW846 8260B**
	95	**(70 - 131)**	**5.1**	**(0-23)**	**SW846 8260B**
Benzene	**98**	**(75 - 129)**			**SW846 8260B**
	97	**(75 - 129)**	**1.3**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(71 - 130)**			**SW846 8260B**
	96	**(71 - 130)**	**2.2**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**99**	**(75 - 127)**			**SW846 8260B**
	97	**(75 - 127)**	**2.0**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
	97	(59 - 138)
1,2-Dichloroethane-d4	90	(61 - 130)
	95	(61 - 130)
Toluene-d8	91	(60 - 143)
	90	(60 - 143)
4-Bromofluorobenzene	92	(47 - 158)
	90	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 Work Order #...: FH6QA1AA-LCS Matrix.....: SOLID
LCS Lot-Sample#: A3B250000-363 FH6QA1AC-LCSD
Prep Date.....: 02/25/03 Analysis Date..: 02/25/03
Prep Batch #...: 3056363
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**91**	**(55 - 142)**			**SW846 8260B**
	88	**(55 - 142)**	**2.9**	**(0-27)**	**SW846 8260B**
Trichloroethene	**88**	**(70 - 131)**			**SW846 8260B**
	88	**(70 - 131)**	**0.30**	**(0-23)**	**SW846 8260B**
Benzene	**92**	**(75 - 129)**			**SW846 8260B**
	95	**(75 - 129)**	**2.9**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(71 - 130)**			**SW846 8260B**
	98	**(71 - 130)**	**0.72**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**100**	**(75 - 127)**			**SW846 8260B**
	98	**(75 - 127)**	**1.8**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
	94	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
	92	(61 - 130)
Toluene-d8	96	(60 - 143)
	98	(60 - 143)
4-Bromofluorobenzene	101	(47 - 158)
	103	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B070115 **Work Order #...:** FG9QW1AU-MS **Matrix.....:** WATER
MS Lot-Sample #: A3B070135-004 FG9QW1AV-MSD
Date Sampled...: 02/06/03 15:21 **Date Received..:** 02/07/03
Prep Date.....: 02/11/03 **Analysis Date..:** 02/11/03
Prep Batch #...: 3043288
Dilution Factor: 10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**99**	**(62 - 130)**			**SW846 8260B**
	96	**(62 - 130)**	**3.5**	**(0-20)**	**SW846 8260B**
Trichloroethene	**95**	**(62 - 130)**			**SW846 8260B**
	92	**(62 - 130)**	**2.2**	**(0-20)**	**SW846 8260B**
Benzene	**102**	**(78 - 118)**			**SW846 8260B**
	105	**(78 - 118)**	**2.4**	**(0-20)**	**SW846 8260B**
Toluene	**100**	**(70 - 119)**			**SW846 8260B**
	101	**(70 - 119)**	**0.89**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**99**	**(76 - 117)**			**SW846 8260B**
	100	**(76 - 117)**	**0.78**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
	94	(61 - 128)
Toluene-d8	96	(76 - 110)
	96	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)
	101	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A3B070115	**Work Order #...:**	FG9LV1AD-MS	**Matrix.....:**	SO
MS Lot-Sample #:	A3B070115-001		FG9LV1AE-MSD		
Date Sampled...:	02/05/03 15:30	**Date Received..:**	02/07/03		
Prep Date.....:	02/13/03	**Analysis Date..:**	02/13/03		
Prep Batch #...:	3045470				
Dilution Factor:	0.83				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**98**	**(43 - 147)**			**SW846 8260B**
	92	**(43 - 147)**	**0.45**	**(0-27)**	**SW846 8260B**
Trichloroethene	**351 a**	**(46 - 143)**			**SW846 8260B**
	632 a,p	**(46 - 143)**	**42**	**(0-23)**	**SW846 8260B**
Benzene	**94**	**(55 - 138)**			**SW846 8260B**
	87	**(55 - 138)**	**0.09**	**(0-20)**	**SW846 8260B**
Toluene	**94**	**(46 - 147)**			**SW846 8260B**
	87	**(46 - 147)**	**1.3**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**94**	**(49 - 139)**			**SW846 8260B**
	86	**(49 - 139)**	**1.8**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(59 - 138)
	95	(59 - 138)
1,2-Dichloroethane-d4	95	(61 - 130)
	94	(61 - 130)
Toluene-d8	92	(60 - 143)
	91	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)
	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

a Spiked analyte recovery is outside stated control limits.

p Relative percent difference (RPD) is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B070115 **Work Order #...:** FG9LV-SMP FG9LV-DUP **Matrix.....:** SO

Date Sampled...: 02/05/03 15:30 **Date Received..:** 02/07/03

% Moisture.....: 15

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B070115-001		
	84.6	84.6	%	0.009	(0-20)	MCAWW 160.3 MOD	02/11-02/12/03	3042283

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3B070115 **Work Order #...:** FHD11-SMP FHD11-DUP **Matrix.....:** SOLID

Date Sampled...: 02/10/03 09:10 **Date Received..:** 02/11/03

% Moisture.....: 28

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3B110105-013		
	72.4	76.7	%	5.8	(0-20)	MCAWW 160.3 MOD	02/11-02/12/03	3042283

Dilution Factor: 1

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client: MacTec, Inc.	Project Manager: Rhonda Quinn	Date: 2/6/03	Chain of Custody Number: 163927
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Bob Seymour	Lab Contact: Roger Toth	
Project Name and Location (State): TK Louisville / GA	Carrier/Waybill Number: Fed Ex: 837652971684		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	VOA/SPLP	8260B	Special Instructions/ Conditions of Receipt
SB-114: 0'-2'	2/5/03	15:30				X	4						3	1			For questions call
SB-114: 0'-2' MS/MSD	2/5	15:30				X	8						6	2			Rhonda Quinn at
SB-114: 22'-24'	2/5	17:15				X	4						3	1			(770) 421-3400
SB-114: 22'-24'	2/5	17:15				X	2								2		
SB-114: 42'-44'	2/5	17:30				X	4						3	1			
SB-114: Uppermost	2/5	17:10		X						3						3	
SB-114: Twiggs Clay	2/6	08:30		X						3						3	
Trip Blank No. 3	2/6	—		X						2						2	
SB-101: 0'-2'	2/6	10:45				X	4						3	1			
SB-101: 12'-14'	2/6	12:10				X	4						3	1			
SB-101: 36'-38'	2/6	12:20				X	4						3	1			
SB-201: 6'-8'	2/6	09:30				X	4						3	1			

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: R. C. Lyman To Fed Ex	Date: 2/6/03	Time: 15:00	1. Received By:	Date: 2-7-03	Time: 0735 (0800)
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report, CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3C140142

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FJ56D	001	SB-117: 0'-2'	03/12/03	15:45
FJ56H	002	SB-117: 12'-14'	03/12/03	17:45
FJ56J	003	SB-117: 44'-46'	03/12/03	18:00
FJ56K	004	SB-115: 0'-2'	03/13/03	08:15
FJ56V	005	SB-115: 11'-13'	03/13/03	08:50
FJ562	006	SB-115: 18'-20'	03/13/03	09:15
FJ565	007	RINSATE	03/13/03	08:00
FJ57A	008	SB-115: UPPERMOST ZONE	03/13/03	10:15
FJ57E	009	SB-115: TWIGGS CLAY	03/13/03	11:30
FJ57M	010	SB-116: 0-2'	03/12/03	12:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3C140142

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

March 27, 2003

CASE NARRATIVE

A3C140142

The following report contains the analytical results for three water samples and seven solid samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK - Louisville site. The samples were received on March 14, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on March 26, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.3° C.

See STL's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The solid samples (Encores) were preserved by freezing in water.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3C140142

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-117: 0'-2' 03/12/03 15:45 001				
Percent Solids	88.1	10.0	%	MCAWW 160.3 MOD
SB-117: 12'-14' 03/12/03 17:45 002				
Percent Solids	86.3	10.0	%	MCAWW 160.3 MOD
SB-117: 44'-46' 03/12/03 18:00 003				
Percent Solids	96.8	10.0	%	MCAWW 160.3 MOD
SB-115: 0'-2' 03/13/03 08:15 004				
Isopropylbenzene	16	5.2	ug/kg	SW846 8260B
Percent Solids	84.7	10.0	%	MCAWW 160.3 MOD
SB-115: 11'-13' 03/13/03 08:50 005				
Percent Solids	95.6	10.0	%	MCAWW 160.3 MOD
SB-115: 18'-20' 03/13/03 09:15 006				
Percent Solids	97.0	10.0	%	MCAWW 160.3 MOD
SB-115: UPPERMOST ZONE 03/13/03 10:15 008				
Trichloroethene	780	42	ug/L	SW846 8260B
SB-116: 0-2' 03/12/03 12:00 010				
Percent Solids	89.0	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A3C140142

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-117: 0'-2'

GC/MS Volatiles

Lot-Sample #...:	A3C140142-001	**Work Order #...:**	FJ56D1AC	**Matrix.....:**	SO
Date Sampled...:	03/12/03 15:45	**Date Received..:**	03/14/03		
Prep Date.....:	03/17/03	**Analysis Date..:**	03/17/03		
Prep Batch #...:	3077127				
Dilution Factor:	0.78				
% Moisture.....:	12	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.4	ug/kg
Bromodichloromethane	ND	4.4	ug/kg
Bromoform	ND	4.4	ug/kg
Bromomethane	ND	8.9	ug/kg
Carbon tetrachloride	ND	4.4	ug/kg
Chlorobenzene	ND	4.4	ug/kg
Chlorodibromomethane	ND	4.4	ug/kg
Chloroethane	ND	8.9	ug/kg
Chloroform	ND	4.4	ug/kg
Chloromethane	ND	8.9	ug/kg
Dibromomethane	ND	4.4	ug/kg
1,2-Dichlorobenzene	ND	4.4	ug/kg
1,3-Dichlorobenzene	ND	4.4	ug/kg
1,4-Dichlorobenzene	ND	4.4	ug/kg
Dichlorodifluoromethane	ND	8.9	ug/kg
1,1-Dichloroethane	ND	4.4	ug/kg
1,2-Dichloroethane	ND	4.4	ug/kg
cis-1,2-Dichloroethene	ND	4.4	ug/kg
trans-1,2-Dichloroethene	ND	4.4	ug/kg
1,1-Dichloroethene	ND	4.4	ug/kg
1,2-Dichloropropane	ND	4.4	ug/kg
1,3-Dichloropropane	ND	4.4	ug/kg
2,2-Dichloropropane	ND	4.4	ug/kg
1,1-Dichloropropene	ND	4.4	ug/kg
1,4-Dioxane	ND	220	ug/kg
Ethylbenzene	ND	4.4	ug/kg
Hexachlorobutadiene	ND	4.4	ug/kg
Isopropylbenzene	ND	4.4	ug/kg
Methylene chloride	ND	4.4	ug/kg
Naphthalene	ND	4.4	ug/kg
Styrene	ND	4.4	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.4	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.4	ug/kg
Tetrachloroethene	ND	4.4	ug/kg
Toluene	ND	4.4	ug/kg
1,2,4-Trichloro-benzene	ND	4.4	ug/kg
1,1,1-Trichloroethane	ND	4.4	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-117: 0'-2'

GC/MS Volatiles

Lot-Sample #...: A3C140142-001 Work Order #...: FJ56D1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.4	ug/kg
Trichloroethene	ND	4.4	ug/kg
Trichlorofluoromethane	ND	8.9	ug/kg
1,2,3-Trichloropropane	ND	4.4	ug/kg
Vinyl chloride	ND	4.4	ug/kg
Xylenes (total)	ND	4.4	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(59 - 138)
1,2-Dichloroethane-d4	98	(61 - 130)
Toluene-d8	109	(60 - 143)
4-Bromofluorobenzene	95	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-117: 0'-2'

General Chemistry

Lot-Sample #...: A3C140142-001 Work Order #...: FJ56D Matrix.....: SO
Date Sampled...: 03/12/03 15:45 Date Received..: 03/14/03
% Moisture.....: 12

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	88.1	10.0	%	MCAWW 160.3 MOD	03/25-03/26/03	3084494

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-117: 12'-14'

GC/MS Volatiles

Lot-Sample #...: A3C140142-002 **Work Order #...:** FJ56H1AC **Matrix.....:** SO
Date Sampled...: 03/12/03 17:45 **Date Received..:** 03/14/03
Prep Date.....: 03/17/03 **Analysis Date..:** 03/17/03
Prep Batch #...: 3077127
Dilution Factor: 0.81
% Moisture.....: 14 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.7	ug/kg
Bromodichloromethane	ND	4.7	ug/kg
Bromoform	ND	4.7	ug/kg
Bromomethane	ND	9.4	ug/kg
Carbon tetrachloride	ND	4.7	ug/kg
Chlorobenzene	ND	4.7	ug/kg
Chlorodibromomethane	ND	4.7	ug/kg
Chloroethane	ND	9.4	ug/kg
Chloroform	ND	4.7	ug/kg
Chloromethane	ND	9.4	ug/kg
Dibromomethane	ND	4.7	ug/kg
1,2-Dichlorobenzene	ND	4.7	ug/kg
1,3-Dichlorobenzene	ND	4.7	ug/kg
1,4-Dichlorobenzene	ND	4.7	ug/kg
Dichlorodifluoromethane	ND	9.4	ug/kg
1,1-Dichloroethane	ND	4.7	ug/kg
1,2-Dichloroethane	ND	4.7	ug/kg
cis-1,2-Dichloroethene	ND	4.7	ug/kg
trans-1,2-Dichloroethene	ND	4.7	ug/kg
1,1-Dichloroethene	ND	4.7	ug/kg
1,2-Dichloropropane	ND	4.7	ug/kg
1,3-Dichloropropane	ND	4.7	ug/kg
2,2-Dichloropropane	ND	4.7	ug/kg
1,1-Dichloropropene	ND	4.7	ug/kg
1,4-Dioxane	ND	230	ug/kg
Ethylbenzene	ND	4.7	ug/kg
Hexachlorobutadiene	ND	4.7	ug/kg
Isopropylbenzene	ND	4.7	ug/kg
Methylene chloride	ND	4.7	ug/kg
Naphthalene	ND	4.7	ug/kg
Styrene	ND	4.7	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.7	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg
Tetrachloroethene	ND	4.7	ug/kg
Toluene	ND	4.7	ug/kg
1,2,4-Trichloro-benzene	ND	4.7	ug/kg
1,1,1-Trichloroethane	ND	4.7	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-117: 12'-14'

GC/MS Volatiles

Lot-Sample #...: A3C140142-002 **Work Order #...:** FJ56H1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.7	ug/kg
Trichloroethene	ND	4.7	ug/kg
Trichlorofluoromethane	ND	9.4	ug/kg
1,2,3-Trichloropropane	ND	4.7	ug/kg
Vinyl chloride	ND	4.7	ug/kg
Xylenes (total)	ND	4.7	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(59 - 138)
1,2-Dichloroethane-d4	104	(61 - 130)
Toluene-d8	110	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-117: 12'-14'

General Chemistry

Lot-Sample #...: A3C140142-002 Work Order #...: FJ56H Matrix.....: SO
Date Sampled...: 03/12/03 17:45 Date Received..: 03/14/03
% Moisture.....: 14

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	86.3	10.0	%	MCAWW 160.3 MOD	03/25-03/26/03	3084494

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-117: 44'-46'

GC/MS Volatiles

Lot-Sample #...: A3C140142-003 Work Order #...: FJ56J1AC Matrix.....: SO
Date Sampled...: 03/12/03 18:00 Date Received..: 03/14/03
Prep Date.....: 03/17/03 Analysis Date..: 03/17/03
Prep Batch #...: 3077127
Dilution Factor: 1.14
% Moisture.....: 3.2 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.9	ug/kg
Bromodichloromethane	ND	5.9	ug/kg
Bromoform	ND	5.9	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	5.9	ug/kg
Chlorobenzene	ND	5.9	ug/kg
Chlorodibromomethane	ND	5.9	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	5.9	ug/kg
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	5.9	ug/kg
1,2-Dichlorobenzene	ND	5.9	ug/kg
1,3-Dichlorobenzene	ND	5.9	ug/kg
1,4-Dichlorobenzene	ND	5.9	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.9	ug/kg
1,2-Dichloroethane	ND	5.9	ug/kg
cis-1,2-Dichloroethene	ND	5.9	ug/kg
trans-1,2-Dichloroethene	ND	5.9	ug/kg
1,1-Dichloroethene	ND	5.9	ug/kg
1,2-Dichloropropane	ND	5.9	ug/kg
1,3-Dichloropropane	ND	5.9	ug/kg
2,2-Dichloropropane	ND	5.9	ug/kg
1,1-Dichloropropene	ND	5.9	ug/kg
1,4-Dioxane	ND	290	ug/kg
Ethylbenzene	ND	5.9	ug/kg
Hexachlorobutadiene	ND	5.9	ug/kg
Isopropylbenzene	ND	5.9	ug/kg
Methylene chloride	ND	5.9	ug/kg
Naphthalene	ND	5.9	ug/kg
Styrene	ND	5.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg
Tetrachloroethene	ND	5.9	ug/kg
Toluene	ND	5.9	ug/kg
1,2,4-Trichloro-benzene	ND	5.9	ug/kg
1,1,1-Trichloroethane	ND	5.9	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-117: 44'-46'

GC/MS Volatiles

Lot-Sample #...: A3C140142-003 **Work Order #...:** FJ56J1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.9	ug/kg
Trichloroethene	ND	5.9	ug/kg
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.9	ug/kg
Vinyl chloride	ND	5.9	ug/kg
Xylenes (total)	ND	5.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(59 - 138)
1,2-Dichloroethane-d4	98	(61 - 130)
Toluene-d8	111	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-117: 44'-46'

General Chemistry

Lot-Sample #...: A3C140142-003 Work Order #...: FJ56J Matrix.....: SO
Date Sampled...: 03/12/03 18:00 Date Received..: 03/14/03
% Moisture.....: 3.2

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	96.8	10.0	%	MCAWW 160.3 MOD	03/25-03/26/03	3084494

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: 0'-2'

GC/MS Volatiles

Lot-Sample #...: A3C140142-004 **Work Order #...:** FJ56K1AC **Matrix.....:** SO
Date Sampled...: 03/13/03 08:15 **Date Received..:** 03/14/03
Prep Date.....: 03/17/03 **Analysis Date..:** 03/17/03
Prep Batch #...: 3077127
Dilution Factor: 0.88
% Moisture.....: 15 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.2	ug/kg
Bromodichloromethane	ND	5.2	ug/kg
Bromoform	ND	5.2	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.2	ug/kg
Chlorobenzene	ND	5.2	ug/kg
Chlorodibromomethane	ND	5.2	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.2	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.2	ug/kg
1,2-Dichlorobenzene	ND	5.2	ug/kg
1,3-Dichlorobenzene	ND	5.2	ug/kg
1,4-Dichlorobenzene	ND	5.2	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.2	ug/kg
1,2-Dichloroethane	ND	5.2	ug/kg
cis-1,2-Dichloroethene	ND	5.2	ug/kg
trans-1,2-Dichloroethene	ND	5.2	ug/kg
1,1-Dichloroethene	ND	5.2	ug/kg
1,2-Dichloropropane	ND	5.2	ug/kg
1,3-Dichloropropane	ND	5.2	ug/kg
2,2-Dichloropropane	ND	5.2	ug/kg
1,1-Dichloropropene	ND	5.2	ug/kg
1,4-Dioxane	ND	260	ug/kg
Ethylbenzene	ND	5.2	ug/kg
Hexachlorobutadiene	ND	5.2	ug/kg
Isopropylbenzene	**16**	**5.2**	**ug/kg**
Methylene chloride	ND	5.2	ug/kg
Naphthalene	ND	5.2	ug/kg
Styrene	ND	5.2	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.2	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg
Tetrachloroethene	ND	5.2	ug/kg
Toluene	ND	5.2	ug/kg
1,2,4-Trichloro-benzene	ND	5.2	ug/kg
1,1,1-Trichloroethane	ND	5.2	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: 0'-2'

GC/MS Volatiles

Lot-Sample #...: A3C140142-004 **Work Order #...:** FJ56K1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.2	ug/kg
Trichloroethene	ND	5.2	ug/kg
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.2	ug/kg
Vinyl chloride	ND	5.2	ug/kg
Xylenes (total)	ND	5.2	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(59 - 138)
1,2-Dichloroethane-d4	97	(61 - 130)
Toluene-d8	109	(60 - 143)
4-Bromofluorobenzene	98	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: 0'-2'

General Chemistry

Lot-Sample #...: A3C140142-004 Work Order #...: FJ56K Matrix.....: SO
Date Sampled...: 03/13/03 08:15 Date Received..: 03/14/03
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.7	10.0	%	MCAWW 160.3 MOD	03/25-03/26/03	3084494

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: 11'-13'

GC/MS Volatiles

Lot-Sample #...: A3C140142-005 Work Order #...: FJ56V1AC Matrix.....: SO
Date Sampled...: 03/13/03 08:50 Date Received..: 03/14/03
Prep Date.....: 03/17/03 Analysis Date..: 03/17/03
Prep Batch #...: 3077127
Dilution Factor: 0.94
% Moisture.....: 4.4 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.9	ug/kg
Bromodichloromethane	ND	4.9	ug/kg
Bromoform	ND	4.9	ug/kg
Bromomethane	ND	9.8	ug/kg
Carbon tetrachloride	ND	4.9	ug/kg
Chlorobenzene	ND	4.9	ug/kg
Chlorodibromomethane	ND	4.9	ug/kg
Chloroethane	ND	9.8	ug/kg
Chloroform	ND	4.9	ug/kg
Chloromethane	ND	9.8	ug/kg
Dibromomethane	ND	4.9	ug/kg
1,2-Dichlorobenzene	ND	4.9	ug/kg
1,3-Dichlorobenzene	ND	4.9	ug/kg
1,4-Dichlorobenzene	ND	4.9	ug/kg
Dichlorodifluoromethane	ND	9.8	ug/kg
1,1-Dichloroethane	ND	4.9	ug/kg
1,2-Dichloroethane	ND	4.9	ug/kg
cis-1,2-Dichloroethene	ND	4.9	ug/kg
trans-1,2-Dichloroethene	ND	4.9	ug/kg
1,1-Dichloroethene	ND	4.9	ug/kg
1,2-Dichloropropane	ND	4.9	ug/kg
1,3-Dichloropropane	ND	4.9	ug/kg
2,2-Dichloropropane	ND	4.9	ug/kg
1,1-Dichloropropene	ND	4.9	ug/kg
1,4-Dioxane	ND	250	ug/kg
Ethylbenzene	ND	4.9	ug/kg
Hexachlorobutadiene	ND	4.9	ug/kg
Isopropylbenzene	ND	4.9	ug/kg
Methylene chloride	ND	4.9	ug/kg
Naphthalene	ND	4.9	ug/kg
Styrene	ND	4.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.9	ug/kg
Tetrachloroethene	ND	4.9	ug/kg
Toluene	ND	4.9	ug/kg
1,2,4-Trichloro-benzene	ND	4.9	ug/kg
1,1,1-Trichloroethane	ND	4.9	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: 11'-13'

GC/MS Volatiles

Lot-Sample #...: A3C140142-005 **Work Order #...:** FJ56V1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.9	ug/kg
Trichloroethene	ND	4.9	ug/kg
Trichlorofluoromethane	ND	9.8	ug/kg
1,2,3-Trichloropropane	ND	4.9	ug/kg
Vinyl chloride	ND	4.9	ug/kg
Xylenes (total)	ND	4.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(59 - 138)
1,2-Dichloroethane-d4	103	(61 - 130)
Toluene-d8	111	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: 11'-13'

General Chemistry

Lot-Sample #...: A3C140142-005 Work Order #...: FJ56V Matrix.....: SO
Date Sampled...: 03/13/03 08:50 Date Received..: 03/14/03
% Moisture.....: 4.4

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	95.6	10.0	%	MCAWW 160.3 MOD	03/25-03/26/03	3084494

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: 18'-20'

GC/MS Volatiles

Lot-Sample #...: A3C140142-006 **Work Order #...:** FJ5621AC **Matrix.....:** SO
Date Sampled...: 03/13/03 09:15 **Date Received..:** 03/14/03
Prep Date.....: 03/17/03 **Analysis Date..:** 03/17/03
Prep Batch #...: 3077127
Dilution Factor: 1.06
% Moisture.....: 3.0 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.5	ug/kg
Bromodichloromethane	ND	5.5	ug/kg
Bromoform	ND	5.5	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.5	ug/kg
Chlorobenzene	ND	5.5	ug/kg
Chlorodibromomethane	ND	5.5	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.5	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.5	ug/kg
1,2-Dichlorobenzene	ND	5.5	ug/kg
1,3-Dichlorobenzene	ND	5.5	ug/kg
1,4-Dichlorobenzene	ND	5.5	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.5	ug/kg
1,2-Dichloroethane	ND	5.5	ug/kg
cis-1,2-Dichloroethene	ND	5.5	ug/kg
trans-1,2-Dichloroethene	ND	5.5	ug/kg
1,1-Dichloroethene	ND	5.5	ug/kg
1,2-Dichloropropane	ND	5.5	ug/kg
1,3-Dichloropropane	ND	5.5	ug/kg
2,2-Dichloropropane	ND	5.5	ug/kg
1,1-Dichloropropene	ND	5.5	ug/kg
1,4-Dioxane	ND	270	ug/kg
Ethylbenzene	ND	5.5	ug/kg
Hexachlorobutadiene	ND	5.5	ug/kg
Isopropylbenzene	ND	5.5	ug/kg
Methylene chloride	ND	5.5	ug/kg
Naphthalene	ND	5.5	ug/kg
Styrene	ND	5.5	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.5	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.5	ug/kg
Tetrachloroethene	ND	5.5	ug/kg
Toluene	ND	5.5	ug/kg
1,2,4-Trichloro-benzene	ND	5.5	ug/kg
1,1,1-Trichloroethane	ND	5.5	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: 18'-20'

GC/MS Volatiles

Lot-Sample #...: A3C140142-006 Work Order #...: FJ5621AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.5	ug/kg
Trichloroethene	ND	5.5	ug/kg
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.5	ug/kg
Vinyl chloride	ND	5.5	ug/kg
Xylenes (total)	ND	5.5	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(59 - 138)
1,2-Dichloroethane-d4	100	(61 - 130)
Toluene-d8	111	(60 - 143)
4-Bromofluorobenzene	102	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: 18'-20'

General Chemistry

Lot-Sample #...: A3C140142-006 Work Order #...: FJ562 Matrix.....: SO
Date Sampled...: 03/13/03 09:15 Date Received..: 03/14/03
% Moisture.....: 3.0

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	97.0	10.0	%	MCAWW 160.3 MOD	03/25-03/26/03	3084494

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: RINSATE

GC/MS Volatiles

Lot-Sample #...: A3C140142-007 Work Order #...: FJ5651AA Matrix.....: WQ
Date Sampled...: 03/13/03 08:00 Date Received..: 03/14/03
Prep Date.....: 03/17/03 Analysis Date..: 03/17/03
Prep Batch #...: 3077458
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: RINSATE

GC/MS Volatiles

Lot-Sample #...: A3C140142-007 Work Order #...: FJ5651AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(78 - 115)
1,2-Dichloroethane-d4	89	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	96	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-116: 0-2'

GC/MS Volatiles

Lot-Sample #...: A3C140142-010 Work Order #...: FJ57M1AC Matrix.....: SO
Date Sampled...: 03/12/03 12:00 Date Received..: 03/14/03
Prep Date.....: 03/17/03 Analysis Date..: 03/17/03
Prep Batch #...: 3077127
Dilution Factor: 0.79
% Moisture.....: 11 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.4	ug/kg
Bromodichloromethane	ND	4.4	ug/kg
Bromoform	ND	4.4	ug/kg
Bromomethane	ND	8.9	ug/kg
Carbon tetrachloride	ND	4.4	ug/kg
Chlorobenzene	ND	4.4	ug/kg
Chlorodibromomethane	ND	4.4	ug/kg
Chloroethane	ND	8.9	ug/kg
Chloroform	ND	4.4	ug/kg
Chloromethane	ND	8.9	ug/kg
Dibromomethane	ND	4.4	ug/kg
1,2-Dichlorobenzene	ND	4.4	ug/kg
1,3-Dichlorobenzene	ND	4.4	ug/kg
1,4-Dichlorobenzene	ND	4.4	ug/kg
Dichlorodifluoromethane	ND	8.9	ug/kg
1,1-Dichloroethane	ND	4.4	ug/kg
1,2-Dichloroethane	ND	4.4	ug/kg
cis-1,2-Dichloroethene	ND	4.4	ug/kg
trans-1,2-Dichloroethene	ND	4.4	ug/kg
1,1-Dichloroethene	ND	4.4	ug/kg
1,2-Dichloropropane	ND	4.4	ug/kg
1,3-Dichloropropane	ND	4.4	ug/kg
2,2-Dichloropropane	ND	4.4	ug/kg
1,1-Dichloropropene	ND	4.4	ug/kg
1,4-Dioxane	ND	220	ug/kg
Ethylbenzene	ND	4.4	ug/kg
Hexachlorobutadiene	ND	4.4	ug/kg
Isopropylbenzene	ND	4.4	ug/kg
Methylene chloride	ND	4.4	ug/kg
Naphthalene	ND	4.4	ug/kg
Styrene	ND	4.4	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.4	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.4	ug/kg
Tetrachloroethene	ND	4.4	ug/kg
Toluene	ND	4.4	ug/kg
1,2,4-Trichloro-benzene	ND	4.4	ug/kg
1,1,1-Trichloroethane	ND	4.4	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-116: 0-2'

GC/MS Volatiles

Lot-Sample #...: A3C140142-010 Work Order #...: FJ57M1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.4	ug/kg
Trichloroethene	ND	4.4	ug/kg
Trichlorofluoromethane	ND	8.9	ug/kg
1,2,3-Trichloropropane	ND	4.4	ug/kg
Vinyl chloride	ND	4.4	ug/kg
Xylenes (total)	ND	4.4	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(59 - 138)
1,2-Dichloroethane-d4	102	(61 - 130)
Toluene-d8	113	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-116: 0-2'

General Chemistry

Lot-Sample #...: A3C140142-010 Work Order #...: FJ57M Matrix.....: SO
Date Sampled...: 03/12/03 12:00 Date Received..: 03/14/03
% Moisture.....: 11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	89.0	10.0	%	MCAWW 160.3 MOD	03/25-03/26/03	3084494

Dilution Factor: 1

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C140142 **Work Order #...:** FKAEF1AA **Matrix.....:** SOLID
MB Lot-Sample #: A3C180000-127

Prep Date.....: 03/17/03
Analysis Date..: 03/17/03 **Prep Batch #...:** 3077127
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C140142 **Work Order #...:** FKAEF1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(59 - 138)
1,2-Dichloroethane-d4	101	(61 - 130)
Toluene-d8	111	(60 - 143)
4-Bromofluorobenzene	102	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C140142 **Work Order #...:** FKCW41AA **Matrix.....:** WATER
MB Lot-Sample #: A3C180000-458

Prep Date.....: 03/17/03
Analysis Date..: 03/17/03 **Prep Batch #...:** 3077458
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C140142 **Work Order #...:** FKCW41AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(78 - 115)
1,2-Dichloroethane-d4	85	(77 - 120)
Toluene-d8	101	(78 - 111)
4-Bromofluorobenzene	100	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3C140142 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FKQKW1AA		MB Lot-Sample #:	A3C250000-494	
	ND	10.0	%	MCAWW 160.3 MOD	03/25-03/26/03	3084494
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C140142 **Work Order #...:** FKAEF1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3C180000-127 FKAEF1AD-LCSD
Prep Date.....: 03/17/03 **Analysis Date..:** 03/17/03
Prep Batch #...: 3077127
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**110**	**(55 - 142)**			**SW846 8260B**
	90	**(55 - 142)**	**20**	**(0-27)**	**SW846 8260B**
Trichloroethene	**92**	**(70 - 131)**			**SW846 8260B**
	79	**(70 - 131)**	**15**	**(0-23)**	**SW846 8260B**
Benzene	**99**	**(75 - 129)**			**SW846 8260B**
	87	**(75 - 129)**	**13**	**(0-20)**	**SW846 8260B**
Toluene	**92**	**(71 - 130)**			**SW846 8260B**
	80	**(71 - 130)**	**13**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**93**	**(75 - 127)**			**SW846 8260B**
	81	**(75 - 127)**	**13**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(59 - 138)
	108	(59 - 138)
1,2-Dichloroethane-d4	113	(61 - 130)
	107	(61 - 130)
Toluene-d8	119	(60 - 143)
	116	(60 - 143)
4-Bromofluorobenzene	110	(47 - 158)
	108	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C140142 **Work Order #...:** FKCW41AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3C180000-458 FKCW41AD-LCSD
Prep Date.....: 03/17/03 **Analysis Date..:** 03/17/03
Prep Batch #...: 3077458
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**103**	**(65 - 119)**			**SW846 8260B**
	100	**(65 - 119)**	**2.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**87**	**(80 - 122)**			**SW846 8260B**
	86	**(80 - 122)**	**1.3**	**(0-20)**	**SW846 8260B**
Benzene	**102**	**(79 - 116)**			**SW846 8260B**
	100	**(79 - 116)**	**1.6**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(76 - 119)**			**SW846 8260B**
	100	**(76 - 119)**	**0.64**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(81 - 115)**			**SW846 8260B**
	98	**(81 - 115)**	**0.56**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(78 - 115)
	90	(78 - 115)
1,2-Dichloroethane-d4	90	(77 - 120)
	87	(77 - 120)
Toluene-d8	100	(78 - 111)
	100	(78 - 111)
4-Bromofluorobenzene	98	(80 - 114)
	97	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A3C140142	**Work Order #...:**	FJ75X1AM-MS	**Matrix.....:**	SOLID
MS Lot-Sample #:	A3C150104-005		FJ75X1AN-MSD		
Date Sampled...:	03/14/03 11:15	**Date Received..:**	03/14/03		
Prep Date.....:	03/17/03	**Analysis Date..:**	03/17/03		
Prep Batch #...:	3077127				
Dilution Factor:	0.85	**% Moisture.....:**	20		

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	92	(43 - 147)			SW846 8260B
	74	(43 - 147)	25	(0-27)	SW846 8260B
Trichloroethene	65	(46 - 143)			SW846 8260B
	49 p	(46 - 143)	30	(0-23)	SW846 8260B
Benzene	75	(55 - 138)			SW846 8260B
	62 p	(55 - 138)	23	(0-20)	SW846 8260B
Toluene	60	(46 - 147)			SW846 8260B
	44 a,p	(46 - 147)	34	(0-24)	SW846 8260B
Chlorobenzene	52	(49 - 139)			SW846 8260B
	37 a,p	(49 - 139)	38	(0-22)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(59 - 138)
	105	(59 - 138)
1,2-Dichloroethane-d4	111	(61 - 130)
	107	(61 - 130)
Toluene-d8	112	(60 - 143)
	111	(60 - 143)
4-Bromofluorobenzene	103	(47 - 158)
	104	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C140142 Work Order #...: FJ12G1A0-MS Matrix.....: WATER
MS Lot-Sample #: A3C120208-003 FJ12G1A1-MSD
Date Sampled...: 03/11/03 14:25 Date Received..: 03/12/03
Prep Date.....: 03/17/03 Analysis Date..: 03/17/03
Prep Batch #...: 3077458
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**96**	**(57 - 138)**			**SW846 8260B**
	96	**(57 - 138)**	**0.66**	**(0-15)**	**SW846 8260B**
Trichloroethene	**83**	**(58 - 141)**			**SW846 8260B**
	83	**(58 - 141)**	**0.39**	**(0-17)**	**SW846 8260B**
Benzene	**98**	**(73 - 123)**			**SW846 8260B**
	99	**(73 - 123)**	**1.5**	**(0-11)**	**SW846 8260B**
Toluene	**95**	**(67 - 129)**			**SW846 8260B**
	99	**(67 - 129)**	**4.1**	**(0-14)**	**SW846 8260B**
Chlorobenzene	**95**	**(70 - 122)**			**SW846 8260B**
	97	**(70 - 122)**	**2.6**	**(0-14)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(78 - 115)
	91	(78 - 115)
1,2-Dichloroethane-d4	85	(77 - 120)
	85	(77 - 120)
Toluene-d8	100	(78 - 111)
	98	(78 - 111)
4-Bromofluorobenzene	99	(80 - 114)
	97	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3C140142 **Work Order #...:** FJ57M-SMP FJ57M-DUP **Matrix.....:** SO

Date Sampled...: 03/12/03 12:00 **Date Received..:** 03/14/03

% Moisture.....: 11

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3C140142-010		
	89.0	88.6	%	0.39	(0-20)	MCAWW 160.3 MOD	03/25-03/26/03	3084494

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3C140142 **Work Order #...:** FKNWD-SMP **Matrix.....:** SOLID
FKNWD-DUP

Date Sampled...: 03/20/03 14:15 **Date Received..:** 03/25/03

% Moisture.....: 5.5

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3C250142-001		
	94.5	94.1	%	0.46	(0-20)	MCAWW 160.3 MOD	03/25-03/26/03	3084494

Dilution Factor: 1

[redacted]

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MacTec	Rhonda Quinn	3/13/03	163933
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr. Suite 100	(770) 421-3400 / (770) 421-3486		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bob Seymour	Roger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville / GA	Fed Ex: 835321295101		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	8260B	Special Instructions/ Conditions of Receipt
SB-117: 0'-2'	3/12/03	15:45				X	4						3	1		For questions
SB-117: 12'-14'	3/12	17:45				X	4						3	1		call Rhonda
SB-117: 44'-46'	3/12	18:00				X	4						3	1		Quinn at
SB-115: 0'-2'	3/13	08:15				X	4						3	1		(770) 421-3400
SB-115: 11'-13'	3/13	08:50				X	4						3	1		
SB-115: 18'-20'	3/13	09:15				X	4						3	1		
Rinsate	3/13	08:00		X						3					3	
SB-115: Uppermost zone	3/13	10:15		X						3					3	
SB-115: Triggs Clay	3/13	11:30		X						3					3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
R.A. Lyman To: Fed Ex	3/13/03	15:00		3-14-03	1015
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3C270254

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FKV32	001	SB-118:0'-2'	03/26/03	11:45
FKV4K	002	SB-118:4'-5'	03/26/03	12:10
FKV40	003	SB-118:UPPERMOST ZONE 6-10	03/26/03	12:30
FKV49	004	SB-118:TWIGGS 17-21	03/26/03	13:15

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3C270254

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

April 11, 2003

CASE NARRATIVE

A3C270254

The following report contains the analytical results for two water samples and two solid samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK Louisville/GA site. The samples were received on March 27, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on April 4, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 5.3° C.

GC/MS VOLATILES

An LCS/LCSD for batch 3090510 was provided since there was insufficient sample volume to perform an MS/MSD.

The solid samples were preserved by freezing in water.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:
Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3C270254

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SB-118:0'-2' 03/26/03 11:45 001				
Percent Solids	95.1	10.0	%	MCAWW 160.3 MOD
SB-118:4'-5' 03/26/03 12:10 002				
Percent Solids	94.4	10.0	%	MCAWW 160.3 MOD
SB-118:UPPERMOST ZONE 03/26/03 12:30 003				
cis-1,2-Dichloroethene	9.6	8.3	ug/L	SW846 8260B
Trichloroethene	560	17	ug/L	SW846 8260B
SB-118:TWIGGS 03/26/03 13:15 004				
Trichloroethene	32	5.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3C270254

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-118:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3C270254-001 Work Order #...: FKV321AC Matrix.....: SO
Date Sampled...: 03/26/03 11:45 Date Received..: 03/27/03
Prep Date.....: 03/29/03 Analysis Date..: 03/29/03
Prep Batch #...: 3090510
Dilution Factor: 0.97
% Moisture.....: 4.9 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.1	ug/kg
Bromodichloromethane	ND	5.1	ug/kg
Bromoform	ND	5.1	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.1	ug/kg
Chlorobenzene	ND	5.1	ug/kg
Chlorodibromomethane	ND	5.1	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.1	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.1	ug/kg
1,2-Dichlorobenzene	ND	5.1	ug/kg
1,3-Dichlorobenzene	ND	5.1	ug/kg
1,4-Dichlorobenzene	ND	5.1	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.1	ug/kg
1,2-Dichloroethane	ND	5.1	ug/kg
cis-1,2-Dichloroethene	ND	5.1	ug/kg
trans-1,2-Dichloroethene	ND	5.1	ug/kg
1,1-Dichloroethene	ND	5.1	ug/kg
1,2-Dichloropropane	ND	5.1	ug/kg
1,3-Dichloropropane	ND	5.1	ug/kg
2,2-Dichloropropane	ND	5.1	ug/kg
1,1-Dichloropropene	ND	5.1	ug/kg
1,4-Dioxane	ND	260	ug/kg
Ethylbenzene	ND	5.1	ug/kg
Hexachlorobutadiene	ND	5.1	ug/kg
Isopropylbenzene	ND	5.1	ug/kg
Methylene chloride	ND	5.1	ug/kg
Naphthalene	ND	5.1	ug/kg
Styrene	ND	5.1	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg
Tetrachloroethene	ND	5.1	ug/kg
Toluene	ND	5.1	ug/kg
1,2,4-Trichloro-benzene	ND	5.1	ug/kg
1,1,1-Trichloroethane	ND	5.1	ug/kg

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-118:0'-2'

GC/MS Volatiles

Lot-Sample #...: A3C270254-001 Work Order #...: FKV321AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.1	ug/kg
Trichloroethene	ND	5.1	ug/kg
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.1	ug/kg
Vinyl chloride	ND	5.1	ug/kg
Xylenes (total)	ND	5.1	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	87	(61 - 130)
Toluene-d8	100	(60 - 143)
4-Bromofluorobenzene	104	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-118:0'-2'

General Chemistry

Lot-Sample #...: A3C270254-001 Work Order #...: FKV32 Matrix.....: SO
Date Sampled...: 03/26/03 11:45 Date Received..: 03/27/03
% Moisture.....: 4.9

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	95.1	10.0	%	MCAWW 160.3 MOD	03/27-03/28/03	3087097

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-118:4'-5'

GC/MS Volatiles

Lot-Sample #...: A3C270254-002	**Work Order #...:** FKV4K1AC	**Matrix.....:** SO	
Date Sampled...: 03/26/03 12:10	**Date Received..:** 03/27/03		
Prep Date.....: 03/29/03	**Analysis Date..:** 03/29/03		
Prep Batch #...: 3090510			
Dilution Factor: 0.97			
% Moisture.....: 5.6	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.1	ug/kg
Bromodichloromethane	ND	5.1	ug/kg
Bromoform	ND	5.1	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.1	ug/kg
Chlorobenzene	ND	5.1	ug/kg
Chlorodibromomethane	ND	5.1	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.1	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.1	ug/kg
1,2-Dichlorobenzene	ND	5.1	ug/kg
1,3-Dichlorobenzene	ND	5.1	ug/kg
1,4-Dichlorobenzene	ND	5.1	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.1	ug/kg
1,2-Dichloroethane	ND	5.1	ug/kg
cis-1,2-Dichloroethene	ND	5.1	ug/kg
trans-1,2-Dichloroethene	ND	5.1	ug/kg
1,1-Dichloroethene	ND	5.1	ug/kg
1,2-Dichloropropane	ND	5.1	ug/kg
1,3-Dichloropropane	ND	5.1	ug/kg
2,2-Dichloropropane	ND	5.1	ug/kg
1,1-Dichloropropene	ND	5.1	ug/kg
1,4-Dioxane	ND	260	ug/kg
Ethylbenzene	ND	5.1	ug/kg
Hexachlorobutadiene	ND	5.1	ug/kg
Isopropylbenzene	ND	5.1	ug/kg
Methylene chloride	ND	5.1	ug/kg
Naphthalene	ND	5.1	ug/kg
Styrene	ND	5.1	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.1	ug/kg
Tetrachloroethene	ND	5.1	ug/kg
Toluene	ND	5.1	ug/kg
1,2,4-Trichloro-benzene	ND	5.1	ug/kg
1,1,1-Trichloroethane	ND	5.1	ug/kg

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-118:4'-5'

GC/MS Volatiles

Lot-Sample #...: A3C270254-002 Work Order #...: FKV4K1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.1	ug/kg
Trichloroethene	ND	5.1	ug/kg
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.1	ug/kg
Vinyl chloride	ND	5.1	ug/kg
Xylenes (total)	ND	5.1	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	98	(60 - 143)
4-Bromofluorobenzene	101	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-118:4'-5'

General Chemistry

Lot-Sample #...: A3C270254-002 Work Order #...: FKV4K Matrix.....: SO
Date Sampled...: 03/26/03 12:10 Date Received..: 03/27/03
% Moisture.....: 5.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	94.4	10.0	%	MCAWW 160.3 MOD	03/27-03/28/03	3087097

Dilution Factor: 1

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C270254 **Work Order #...:** FK32F1AA **Matrix.....:** SOLID
MB Lot-Sample #: A3C310000-510

Prep Date.....: 03/29/03
Analysis Date..: 03/29/03 **Prep Batch #...:** 3090510
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C270254 **Work Order #...:** FK32F1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	100	(60 - 143)
4-Bromofluorobenzene	107	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C270254 Work Order #...: FK8DG1AA Matrix.....: WATER
MB Lot-Sample #: A3D020000-533

Prep Date.....: 04/02/03
Analysis Date..: 04/02/03 Prep Batch #...: 3092533
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C270254 Work Order #...: FK8DG1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(78 - 115)
1,2-Dichloroethane-d4	102	(77 - 120)
Toluene-d8	90	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3C270254 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FKX5H1AA		MB Lot-Sample #:	A3C280000-097	
	ND	10.0	%	MCAWW 160.3 MOD	03/27-03/28/03	3087097
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C270254 Work Order #...: FK32F1AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: A3C310000-510 FK32F1AD-LCSD
Prep Date.....: 03/29/03 Analysis Date..: 03/29/03
Prep Batch #...: 3090510
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	95	(55 - 142)			SW846 8260B
	96	(55 - 142)	1.8	(0-27)	SW846 8260B
Trichloroethene	85	(70 - 131)			SW846 8260B
	77	(70 - 131)	9.8	(0-23)	SW846 8260B
Benzene	94	(75 - 129)			SW846 8260B
	86	(75 - 129)	9.2	(0-20)	SW846 8260B
Toluene	91	(71 - 130)			SW846 8260B
	81	(71 - 130)	12	(0-24)	SW846 8260B
Chlorobenzene	96	(75 - 127)			SW846 8260B
	87	(75 - 127)	10	(0-22)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(59 - 138)
	90	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
	93	(61 - 130)
Toluene-d8	101	(60 - 143)
	102	(60 - 143)
4-Bromofluorobenzene	107	(47 - 158)
	109	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C270254 Work Order #...: FK8DG1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: A3D020000-533 FK8DG1AD-LCSD
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3092533
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	95	(65 - 119)			SW846 8260B
	101	(65 - 119)	5.8	(0-20)	SW846 8260B
Trichloroethene	91	(80 - 122)			SW846 8260B
	94	(80 - 122)	3.0	(0-20)	SW846 8260B
Benzene	94	(79 - 116)			SW846 8260B
	95	(79 - 116)	1.5	(0-20)	SW846 8260B
Toluene	95	(76 - 119)			SW846 8260B
	96	(76 - 119)	0.69	(0-20)	SW846 8260B
Chlorobenzene	98	(81 - 115)			SW846 8260B
	98	(81 - 115)	0.18	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(78 - 115)
	98	(78 - 115)
1,2-Dichloroethane-d4	97	(77 - 120)
	97	(77 - 120)
Toluene-d8	94	(78 - 111)
	92	(78 - 111)
4-Bromofluorobenzene	95	(80 - 114)
	95	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C270254 Work Order #...: FKV491AC-MS Matrix.....: WG
MS Lot-Sample #: A3C270254-004 FKV491AD-MSD
Date Sampled...: 03/26/03 13:15 Date Received..: 03/27/03
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3092533
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**95**	**(57 - 138)**			**SW846 8260B**
	97	**(57 - 138)**	**1.8**	**(0-15)**	**SW846 8260B**
Trichloroethene	**84**	**(58 - 141)**			**SW846 8260B**
	87	**(58 - 141)**	**2.0**	**(0-17)**	**SW846 8260B**
Benzene	**93**	**(73 - 123)**			**SW846 8260B**
	95	**(73 - 123)**	**2.9**	**(0-11)**	**SW846 8260B**
Toluene	**93**	**(67 - 129)**			**SW846 8260B**
	93	**(67 - 129)**	**0.67**	**(0-14)**	**SW846 8260B**
Chlorobenzene	**96**	**(70 - 122)**			**SW846 8260B**
	98	**(70 - 122)**	**2.0**	**(0-14)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(78 - 115)
	101	(78 - 115)
1,2-Dichloroethane-d4	108	(77 - 120)
	103	(77 - 120)
Toluene-d8	95	(78 - 111)
	95	(78 - 111)
4-Bromofluorobenzene	97	(80 - 114)
	95	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3C270254 **Work Order #...:** FKT1G-SMP FKT1G-DUP **Matrix.....:** SOLID

Date Sampled...: 03/25/03 11:25 **Date Received..:** 03/26/03

% Moisture.....: 11

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #:	A3C270124-005	
	88.6	90.6	%	2.3	(0-20)	MCAWW 160.3 MOD	03/27-03/28/03	3087097

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3C270254 **Work Order #...:** FKWNC-SMP FKWNC-DUP **Matrix.....:** SOLID

Date Sampled...: 03/26/03 09:05 **Date Received..:** 03/27/03

% Moisture.....: 73

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A3C270319-003		
	27.2	26.4	%	3.1	(0-20)	MCAWW 160.3 MOD	03/27-03/28/03	3087097

Dilution Factor: 1

Chain of Custody Record

STL-4124 (0901)

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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Client: MacTec	Project Manager: Rhonda Quinn	Date: 3/26/03	Chain of Custody Number: 164002
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Bob Seymour	Lab Contact: Roger Toth	
Project Name and Location (State): TK Louisville / GA	Carrier/Waybill Number: Fed Ex: 835321295086		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	8260B	Special Instructions/ Conditions of Receipt
SB-118; 0'-2'	3/26/03	11:45				X	4						3	1		For questions call Rhonda Quinn at (770) 421-3400
SB-118; 4'-5'	3/26	12:10				X	4						3	1		
SB-118; Uppermost Zone	3/26	12:30								3					3	
SB-118; Twiggs	3/26	13:15								3					3	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: R.A. Seymour To: Fed Ex	Date: 3/26/03	Time: 15:00	1. Received By	Date: 3/27/03	Time: 0905
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3C290136

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FK11Q	001	HA-1	03/27/03	08:55
FK11R	002	HA-2	03/27/03	09:30
FK11T	003	HA-3	03/27/03	10:00
FK11V	004	HA-4	03/27/03	10:30
FK11W	005	HA-5	03/27/03	10:40
FK11X	006	HA-6	03/27/03	13:40
FK111	007	HA-7	03/27/03	14:40
FK112	008	HA-8	03/27/03	14:50
FK114	009	SPLC(A0C-1) HA-2	03/27/03	22:45
FK117	010	SPLC(A0C-3) HA-6	03/27/03	13:40
FK118	011	TB	03/28/03	09:00
FK119	012	EQ BLANK	03/28/03	09:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK-LOUISVILLE-LOUSIVILLE,GA

Lot #: A3C290136

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

April 21, 2003

CASE NARRATIVE

A3C290136

The following report contains the analytical results for two water samples and ten solid samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK – Louisville – Louisville, GA site. The samples were received on April 17, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on April 17, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.3° C.

See STL's Cooler Receipt Form for additional information.

Samples HA-1, HA-2, HA-3, HA-4 and HA-5 were collected on 3-27-03 and were received at the laboratory on 3-29-03 with less than 50% of the holding time left for Volatile Organics 8260 (Encore) preservation. Samples HA-1 and HA-2 had expired preservations upon receipt and samples HA-3, HA-4 and HA-5 had expired preservations as the cooler was inspected and unpacked.

GC/MS VOLATILES

The Method Blank associated with batch 3105206 contained concentration of target analyte(s) above reportable levels and outside acceptance criteria. Due to insufficient sample volume, repreparation and reanalysis could not occur.

Sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

CASE NARRATIVE (continued)

GC/MS VOLATILES (continued)

The Low Level analyses of sample HA-3 exceeded the calibration range for 1,4-dioxane. Refer to the sample report page for the compound flagged with "E". The Medium Level was analyzed but was below the standard reporting limit. Both sets of data are reported.

The solid samples were preserved by freezing in water.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program. which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3C290136

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
HA-1 03/27/03 08:55 001				
1,1,1-Trichloroethane	24	5.9	ug/kg	SW846 8260B
Trichloroethene	22	5.9	ug/kg	SW846 8260B
Percent Solids	84.8	10.0	%	MCAWW 160.3 MOD
HA-2 03/27/03 09:30 002				
1,4-Dioxane	1500000	89000	ug/kg	SW846 8260B
Percent Solids	83.4	10.0	%	MCAWW 160.3 MOD
HA-3 03/27/03 10:00 003				
1,1-Dichloroethene	23	6.8	ug/kg	SW846 8260B
1,4-Dioxane	14000 E	340	ug/kg	SW846 8260B
1,1,1-Trichloroethane	180	6.8	ug/kg	SW846 8260B
1,1,2-Trichloroethane	26	6.8	ug/kg	SW846 8260B
Trichloroethene	120	6.8	ug/kg	SW846 8260B
Percent Solids	84.9	10.0	%	MCAWW 160.3 MOD
HA-4 03/27/03 10:30 004				
1,4-Dioxane	1900	260	ug/kg	SW846 8260B
1,1,1-Trichloroethane	46	5.2	ug/kg	SW846 8260B
Trichloroethene	47	5.2	ug/kg	SW846 8260B
Percent Solids	85.0	10.0	%	MCAWW 160.3 MOD
HA-5 03/27/03 10:40 005				
cis-1,2-Dichloroethene	6.0	4.0	ug/kg	SW846 8260B
Trichloroethene	110	4.0	ug/kg	SW846 8260B
Percent Solids	86.6	10.0	%	MCAWW 160.3 MOD
HA-6 03/27/03 13:40 006				
Trichloroethene	660	230	ug/kg	SW846 8260B
Percent Solids	86.2	10.0	%	MCAWW 160.3 MOD
HA-7 03/27/03 14:40 007				
Trichloroethene	800	290	ug/kg	SW846 8260B
Percent Solids	84.6	10.0	%	MCAWW 160.3 MOD

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EXECUTIVE SUMMARY - Detection Highlights

A3C290136

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
HA-8 03/27/03 14:50 008				
Percent Solids	92.9	10.0	%	MCAWW 160.3 MOD
SPLC(A0C-1) HA-2 03/27/03 22:45 009				
1,4-Dioxane	120000	200	ug/L	SW846 8260B
SPLC(A0C-3) HA-6 03/27/03 13:40 010				
Methylene chloride	7.1 B	1.0	ug/L	SW846 8260B
Tetrachloroethene	1.5	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3C290136

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-1

GC/MS Volatiles

Lot-Sample #...: A3C290136-001 Work Order #...: FK11Q1AC Matrix.....: SO
Date Sampled...: 03/27/03 08:55 Date Received..: 03/29/03
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3093368
Dilution Factor: 1
% Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.9	ug/kg
Bromodichloromethane	ND	5.9	ug/kg
Bromoform	ND	5.9	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	5.9	ug/kg
Chlorobenzene	ND	5.9	ug/kg
Chlorodibromomethane	ND	5.9	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	5.9	ug/kg
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	5.9	ug/kg
1,2-Dichlorobenzene	ND	5.9	ug/kg
1,3-Dichlorobenzene	ND	5.9	ug/kg
1,4-Dichlorobenzene	ND	5.9	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.9	ug/kg
1,2-Dichloroethane	ND	5.9	ug/kg
cis-1,2-Dichloroethene	ND	5.9	ug/kg
trans-1,2-Dichloroethene	ND	5.9	ug/kg
1,1-Dichloroethene	ND	5.9	ug/kg
1,2-Dichloropropane	ND	5.9	ug/kg
1,3-Dichloropropane	ND	5.9	ug/kg
2,2-Dichloropropane	ND	5.9	ug/kg
1,1-Dichloropropene	ND	5.9	ug/kg
1,4-Dioxane	ND	290	ug/kg
Ethylbenzene	ND	5.9	ug/kg
Hexachlorobutadiene	ND	5.9	ug/kg
Isopropylbenzene	ND	5.9	ug/kg
Methylene chloride	ND	5.9	ug/kg
Naphthalene	ND	5.9	ug/kg
Styrene	ND	5.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg
Tetrachloroethene	ND	5.9	ug/kg
Toluene	ND	5.9	ug/kg
1,2,4-Trichloro-benzene	ND	5.9	ug/kg
1,1,1-Trichloroethane	**24**	**5.9**	**ug/kg**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-1

GC/MS Volatiles

Lot-Sample #...: A3C290136-001 Work Order #...: FK11Q1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.9	ug/kg
Trichloroethene	**22**	**5.9**	**ug/kg**
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.9	ug/kg
Vinyl chloride	ND	5.9	ug/kg
Xylenes (total)	ND	5.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	91	(60 - 143)
4-Bromofluorobenzene	99	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-1

General Chemistry

Lot-Sample #...: A3C290136-001 Work Order #...: FK11Q Matrix.....: SO
Date Sampled...: 03/27/03 08:55 Date Received..: 03/29/03
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.8	10.0	%	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-2

GC/MS Volatiles

Lot-Sample #...: A3C290136-002 Work Order #...: FK11R1AC Matrix.....: SO
Date Sampled...: 03/27/03 09:30 Date Received..: 03/29/03
Prep Date.....: 03/29/03 Analysis Date..: 04/02/03
Prep Batch #...: 3093459
Dilution Factor: 5.95
% Moisture.....: 17 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1800	ug/kg
Bromodichloromethane	ND	1800	ug/kg
Bromoform	ND	1800	ug/kg
Bromomethane	ND	3600	ug/kg
Carbon tetrachloride	ND	1800	ug/kg
Chlorobenzene	ND	1800	ug/kg
Chlorodibromomethane	ND	1800	ug/kg
Chloroethane	ND	3600	ug/kg
Chloroform	ND	1800	ug/kg
Chloromethane	ND	3600	ug/kg
Dibromomethane	ND	1800	ug/kg
1,2-Dichlorobenzene	ND	1800	ug/kg
1,3-Dichlorobenzene	ND	1800	ug/kg
1,4-Dichlorobenzene	ND	1800	ug/kg
Dichlorodifluoromethane	ND	3600	ug/kg
1,1-Dichloroethane	ND	1800	ug/kg
1,2-Dichloroethane	ND	1800	ug/kg
1,1-Dichloroethene	ND	1800	ug/kg
cis-1,2-Dichloroethene	ND	1800	ug/kg
trans-1,2-Dichloroethene	ND	1800	ug/kg
1,2-Dichloropropane	ND	1800	ug/kg
1,3-Dichloropropane	ND	1800	ug/kg
2,2-Dichloropropane	ND	1800	ug/kg
1,1-Dichloropropene	ND	1800	ug/kg
1,4-Dioxane	**1500000**	**89000**	**ug/kg**
Ethylbenzene	ND	1800	ug/kg
Trichlorofluoromethane	ND	3600	ug/kg
Hexachlorobutadiene	ND	1800	ug/kg
Isopropylbenzene	ND	1800	ug/kg
Methylene chloride	ND	1800	ug/kg
Naphthalene	ND	1800	ug/kg
Styrene	ND	1800	ug/kg
1,1,1,2-Tetrachloroethane	ND	1800	ug/kg
1,1,2,2-Tetrachloroethane	ND	1800	ug/kg
Tetrachloroethene	ND	1800	ug/kg
Toluene	ND	1800	ug/kg
1,2,4-Trichloro-benzene	ND	1800	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-2

GC/MS Volatiles

Lot-Sample #...: A3C290136-002 Work Order #...: FK11R1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1800	ug/kg
1,1,2-Trichloroethane	ND	1800	ug/kg
Trichloroethene	ND	1800	ug/kg
1,2,3-Trichloropropane	ND	1800	ug/kg
Vinyl chloride	ND	1800	ug/kg
Xylenes (total)	ND	1800	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85 DIL	(59 - 138)
1,2-Dichloroethane-d4	95 DIL	(61 - 130)
Toluene-d8	75 DIL	(60 - 143)
4-Bromofluorobenzene	74 DIL	(47 - 158)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-2

General Chemistry

Lot-Sample #...: A3C290136-002 Work Order #...: FK11R Matrix.....: SO
Date Sampled...: 03/27/03 09:30 Date Received..: 03/29/03
% Moisture.....: 17

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	83.4	10.0	%	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-3

GC/MS Volatiles

Lot-Sample #...: A3C290136-003 Work Order #...: FK11T1AC Matrix.....: SO
Date Sampled...: 03/27/03 10:00 Date Received..: 03/29/03
Prep Date.....: 03/29/03 Analysis Date..: 04/03/03
Prep Batch #...: 3093459
Dilution Factor: 1
% Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	290	ug/kg
Bromodichloromethane	ND	290	ug/kg
Bromoform	ND	290	ug/kg
Bromomethane	ND	590	ug/kg
Carbon tetrachloride	ND	290	ug/kg
Chlorobenzene	ND	290	ug/kg
Chlorodibromomethane	ND	290	ug/kg
Chloroethane	ND	590	ug/kg
Chloroform	ND	290	ug/kg
Chloromethane	ND	590	ug/kg
Dibromomethane	ND	290	ug/kg
1,2-Dichlorobenzene	ND	290	ug/kg
1,3-Dichlorobenzene	ND	290	ug/kg
1,4-Dichlorobenzene	ND	290	ug/kg
Dichlorodifluoromethane	ND	590	ug/kg
1,1-Dichloroethane	ND	290	ug/kg
1,2-Dichloroethane	ND	290	ug/kg
1,1-Dichloroethene	ND	290	ug/kg
cis-1,2-Dichloroethene	ND	290	ug/kg
trans-1,2-Dichloroethene	ND	290	ug/kg
1,2-Dichloropropane	ND	290	ug/kg
1,3-Dichloropropane	ND	290	ug/kg
2,2-Dichloropropane	ND	290	ug/kg
1,1-Dichloropropene	ND	290	ug/kg
1,4-Dioxane	ND	15000	ug/kg
Ethylbenzene	ND	290	ug/kg
Trichlorofluoromethane	ND	590	ug/kg
Hexachlorobutadiene	ND	290	ug/kg
Isopropylbenzene	ND	290	ug/kg
Methylene chloride	ND	290	ug/kg
Naphthalene	ND	290	ug/kg
Styrene	ND	290	ug/kg
1,1,1,2-Tetrachloroethane	ND	290	ug/kg
1,1,2,2-Tetrachloroethane	ND	290	ug/kg
Tetrachloroethene	ND	290	ug/kg
Toluene	ND	290	ug/kg
1,2,4-Trichloro-benzene	ND	290	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-3

GC/MS Volatiles

Lot-Sample #...: A3C290136-003 Work Order #...: FK11T1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	290	ug/kg
1,1,2-Trichloroethane	ND	290	ug/kg
Trichloroethene	ND	290	ug/kg
1,2,3-Trichloropropane	ND	290	ug/kg
Vinyl chloride	ND	290	ug/kg
Xylenes (total)	ND	290	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	79	(60 - 143)
4-Bromofluorobenzene	82	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-3

GC/MS Volatiles

Lot-Sample #...: A3C290136-003 Work Order #...: FK11T2AC Matrix.....: SO
Date Sampled...: 03/27/03 10:00 Date Received..: 03/29/03
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3093368
Dilution Factor: 1.16
% Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	6.8	ug/kg
Bromodichloromethane	ND	6.8	ug/kg
Bromoform	ND	6.8	ug/kg
Bromomethane	ND	14	ug/kg
Carbon tetrachloride	ND	6.8	ug/kg
Chlorobenzene	ND	6.8	ug/kg
Chlorodibromomethane	ND	6.8	ug/kg
Chloroethane	ND	14	ug/kg
Chloroform	ND	6.8	ug/kg
Chloromethane	ND	14	ug/kg
Dibromomethane	ND	6.8	ug/kg
1,2-Dichlorobenzene	ND	6.8	ug/kg
1,3-Dichlorobenzene	ND	6.8	ug/kg
1,4-Dichlorobenzene	ND	6.8	ug/kg
Dichlorodifluoromethane	ND	14	ug/kg
1,1-Dichloroethane	ND	6.8	ug/kg
1,2-Dichloroethane	ND	6.8	ug/kg
cis-1,2-Dichloroethene	ND	6.8	ug/kg
trans-1,2-Dichloroethene	ND	6.8	ug/kg
1,1-Dichloroethene	**23**	**6.8**	**ug/kg**
1,2-Dichloropropane	ND	6.8	ug/kg
1,3-Dichloropropane	ND	6.8	ug/kg
2,2-Dichloropropane	ND	6.8	ug/kg
1,1-Dichloropropene	ND	6.8	ug/kg
1,4-Dioxane	**14000 E**	**340**	**ug/kg**
Ethylbenzene	ND	6.8	ug/kg
Hexachlorobutadiene	ND	6.8	ug/kg
Isopropylbenzene	ND	6.8	ug/kg
Methylene chloride	ND	6.8	ug/kg
Naphthalene	ND	6.8	ug/kg
Styrene	ND	6.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	6.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	6.8	ug/kg
Tetrachloroethene	ND	6.8	ug/kg
Toluene	ND	6.8	ug/kg
1,2,4-Trichloro-benzene	ND	6.8	ug/kg
1,1,1-Trichloroethane	**180**	**6.8**	**ug/kg**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-3

GC/MS Volatiles

Lot-Sample #...: A3C290136-003 Work Order #...: FK11T2AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	26	6.8	ug/kg
Trichloroethene	120	6.8	ug/kg
Trichlorofluoromethane	ND	14	ug/kg
1,2,3-Trichloropropane	ND	6.8	ug/kg
Vinyl chloride	ND	6.8	ug/kg
Xylenes (total)	ND	6.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
1,2-Dichloroethane-d4	91	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	105	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-3

General Chemistry

Lot-Sample #...: A3C290136-003 Work Order #...: FK11T Matrix.....: SO
Date Sampled...: 03/27/03 10:00 Date Received..: 03/29/03
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.9	10.0	%	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-4

GC/MS Volatiles

Lot-Sample #...: A3C290136-004 Work Order #...: FK11V1AC Matrix.....: SO
Date Sampled...: 03/27/03 10:30 Date Received..: 03/29/03
Prep Date.....: 04/03/03 Analysis Date..: 04/03/03
Prep Batch #...: 3093471
Dilution Factor: 0.88
% Moisture.....: 15 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.2	ug/kg
Bromodichloromethane	ND	5.2	ug/kg
Bromoform	ND	5.2	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.2	ug/kg
Chlorobenzene	ND	5.2	ug/kg
Chlorodibromomethane	ND	5.2	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.2	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.2	ug/kg
1,2-Dichlorobenzene	ND	5.2	ug/kg
1,3-Dichlorobenzene	ND	5.2	ug/kg
1,4-Dichlorobenzene	ND	5.2	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.2	ug/kg
1,2-Dichloroethane	ND	5.2	ug/kg
cis-1,2-Dichloroethene	ND	5.2	ug/kg
trans-1,2-Dichloroethene	ND	5.2	ug/kg
1,1-Dichloroethene	ND	5.2	ug/kg
1,2-Dichloropropane	ND	5.2	ug/kg
1,3-Dichloropropane	ND	5.2	ug/kg
2,2-Dichloropropane	ND	5.2	ug/kg
1,1-Dichloropropene	ND	5.2	ug/kg
1,4-Dioxane	**1900**	**260**	**ug/kg**
Ethylbenzene	ND	5.2	ug/kg
Hexachlorobutadiene	ND	5.2	ug/kg
Isopropylbenzene	ND	5.2	ug/kg
Methylene chloride	ND	5.2	ug/kg
Naphthalene	ND	5.2	ug/kg
Styrene	ND	5.2	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.2	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg
Tetrachloroethene	ND	5.2	ug/kg
Toluene	ND	5.2	ug/kg
1,2,4-Trichloro-benzene	ND	5.2	ug/kg
1,1,1-Trichloroethane	**46**	**5.2**	**ug/kg**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-4

GC/MS Volatiles

Lot-Sample #...: A3C290136-004 Work Order #...: FK11V1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.2	ug/kg
Trichloroethene	**47**	**5.2**	**ug/kg**
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.2	ug/kg
Vinyl chloride	ND	5.2	ug/kg
Xylenes (total)	ND	5.2	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	84	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-4

General Chemistry

Lot-Sample #...: A3C290136-004 Work Order #...: FK11V Matrix.....: SO
Date Sampled...: 03/27/03 10:30 Date Received..: 03/29/03
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.0	10.0	%	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-5

GC/MS Volatiles

Lot-Sample #...: A3C290136-005 Work Order #...: FK11W1AC Matrix.....: SO
Date Sampled...: 03/27/03 10:40 Date Received..: 03/29/03
Prep Date.....: 04/03/03 Analysis Date..: 04/03/03
Prep Batch #...: 3093471
Dilution Factor: 0.69
% Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.0	ug/kg
Bromodichloromethane	ND	4.0	ug/kg
Bromoform	ND	4.0	ug/kg
Bromomethane	ND	8.0	ug/kg
Carbon tetrachloride	ND	4.0	ug/kg
Chlorobenzene	ND	4.0	ug/kg
Chlorodibromomethane	ND	4.0	ug/kg
Chloroethane	ND	8.0	ug/kg
Chloroform	ND	4.0	ug/kg
Chloromethane	ND	8.0	ug/kg
Dibromomethane	ND	4.0	ug/kg
1,2-Dichlorobenzene	ND	4.0	ug/kg
1,3-Dichlorobenzene	ND	4.0	ug/kg
1,4-Dichlorobenzene	ND	4.0	ug/kg
Dichlorodifluoromethane	ND	8.0	ug/kg
1,1-Dichloroethane	ND	4.0	ug/kg
1,2-Dichloroethane	ND	4.0	ug/kg
cis-1,2-Dichloroethene	**6.0**	**4.0**	**ug/kg**
trans-1,2-Dichloroethene	ND	4.0	ug/kg
1,1-Dichloroethene	ND	4.0	ug/kg
1,2-Dichloropropane	ND	4.0	ug/kg
1,3-Dichloropropane	ND	4.0	ug/kg
2,2-Dichloropropane	ND	4.0	ug/kg
1,1-Dichloropropene	ND	4.0	ug/kg
1,4-Dioxane	ND	200	ug/kg
Ethylbenzene	ND	4.0	ug/kg
Hexachlorobutadiene	ND	4.0	ug/kg
Isopropylbenzene	ND	4.0	ug/kg
Methylene chloride	ND	4.0	ug/kg
Naphthalene	ND	4.0	ug/kg
Styrene	ND	4.0	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.0	ug/kg
Tetrachloroethene	ND	4.0	ug/kg
Toluene	ND	4.0	ug/kg
1,2,4-Trichloro-benzene	ND	4.0	ug/kg
1,1,1-Trichloroethane	ND	4.0	ug/kg

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-5

GC/MS Volatiles

Lot-Sample #...: A3C290136-005 Work Order #...: FK11W1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	4.0	ug/kg
Trichloroethene	**110**	**4.0**	**ug/kg**
Trichlorofluoromethane	ND	8.0	ug/kg
1,2,3-Trichloropropane	ND	4.0	ug/kg
Vinyl chloride	ND	4.0	ug/kg
Xylenes (total)	ND	4.0	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	82	(61 - 130)
Toluene-d8	83	(60 - 143)
4-Bromofluorobenzene	80	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-5

General Chemistry

Lot-Sample #...: A3C290136-005 Work Order #...: FK11W Matrix.....: SO
Date Sampled...: 03/27/03 10:40 Date Received..: 03/29/03
% Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	86.6	10.0	%	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-6

GC/MS Volatiles

Lot-Sample #...: A3C290136-006 Work Order #...: FK11X1AC Matrix.....: SO
Date Sampled...: 03/27/03 13:40 Date Received..: 03/29/03
Prep Date.....: 03/29/03 Analysis Date..: 04/02/03
Prep Batch #...: 3093459
Dilution Factor: 0.79
% Moisture.....: 14 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	230	ug/kg
Bromodichloromethane	ND	230	ug/kg
Bromoform	ND	230	ug/kg
Bromomethane	ND	460	ug/kg
Carbon tetrachloride	ND	230	ug/kg
Chlorobenzene	ND	230	ug/kg
Chlorodibromomethane	ND	230	ug/kg
Chloroethane	ND	460	ug/kg
Chloroform	ND	230	ug/kg
Chloromethane	ND	460	ug/kg
Dibromomethane	ND	230	ug/kg
1,2-Dichlorobenzene	ND	230	ug/kg
1,3-Dichlorobenzene	ND	230	ug/kg
1,4-Dichlorobenzene	ND	230	ug/kg
Dichlorodifluoromethane	ND	460	ug/kg
1,1-Dichloroethane	ND	230	ug/kg
1,2-Dichloroethane	ND	230	ug/kg
1,1-Dichloroethene	ND	230	ug/kg
cis-1,2-Dichloroethene	ND	230	ug/kg
trans-1,2-Dichloroethene	ND	230	ug/kg
1,2-Dichloropropane	ND	230	ug/kg
1,3-Dichloropropane	ND	230	ug/kg
2,2-Dichloropropane	ND	230	ug/kg
1,1-Dichloropropene	ND	230	ug/kg
1,4-Dioxane	ND	11000	ug/kg
Ethylbenzene	ND	230	ug/kg
Trichlorofluoromethane	ND	460	ug/kg
Hexachlorobutadiene	ND	230	ug/kg
Isopropylbenzene	ND	230	ug/kg
Methylene chloride	ND	230	ug/kg
Naphthalene	ND	230	ug/kg
Styrene	ND	230	ug/kg
1,1,1,2-Tetrachloroethane	ND	230	ug/kg
1,1,2,2-Tetrachloroethane	ND	230	ug/kg
Tetrachloroethene	ND	230	ug/kg
Toluene	ND	230	ug/kg
1,2,4-Trichloro-benzene	ND	230	ug/kg

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-6

GC/MS Volatiles

Lot-Sample #...: A3C290136-006 Work Order #...: FK11X1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	230	ug/kg
1,1,2-Trichloroethane	ND	230	ug/kg
Trichloroethene	**660**	**230**	**ug/kg**
1,2,3-Trichloropropane	ND	230	ug/kg
Vinyl chloride	ND	230	ug/kg
Xylenes (total)	ND	230	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(59 - 138)
1,2-Dichloroethane-d4	96	(61 - 130)
Toluene-d8	75	(60 - 143)
4-Bromofluorobenzene	73	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-6

General Chemistry

Lot-Sample #...: A3C290136-006 Work Order #...: FK11X Matrix.....: SO
Date Sampled...: 03/27/03 13:40 Date Received..: 03/29/03
% Moisture.....: 14

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	86.2	10.0	%	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-7

GC/MS Volatiles

Lot-Sample #...:	A3C290136-007	**Work Order #...:**	FK1111AC	**Matrix.....:**	SO
Date Sampled...:	03/27/03 14:40	**Date Received..:**	03/29/03		
Prep Date.....:	03/29/03	**Analysis Date..:**	04/03/03		
Prep Batch #...:	3093459				
Dilution Factor:	0.98				
% Moisture.....:	15	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	290	ug/kg
Bromodichloromethane	ND	290	ug/kg
Bromoform	ND	290	ug/kg
Bromomethane	ND	580	ug/kg
Carbon tetrachloride	ND	290	ug/kg
Chlorobenzene	ND	290	ug/kg
Chlorodibromomethane	ND	290	ug/kg
Chloroethane	ND	580	ug/kg
Chloroform	ND	290	ug/kg
Chloromethane	ND	580	ug/kg
Dibromomethane	ND	290	ug/kg
1,2-Dichlorobenzene	ND	290	ug/kg
1,3-Dichlorobenzene	ND	290	ug/kg
1,4-Dichlorobenzene	ND	290	ug/kg
Dichlorodifluoromethane	ND	580	ug/kg
1,1-Dichloroethane	ND	290	ug/kg
1,2-Dichloroethane	ND	290	ug/kg
1,1-Dichloroethene	ND	290	ug/kg
cis-1,2-Dichloroethene	ND	290	ug/kg
trans-1,2-Dichloroethene	ND	290	ug/kg
1,2-Dichloropropane	ND	290	ug/kg
1,3-Dichloropropane	ND	290	ug/kg
2,2-Dichloropropane	ND	290	ug/kg
1,1-Dichloropropene	ND	290	ug/kg
1,4-Dioxane	ND	14000	ug/kg
Ethylbenzene	ND	290	ug/kg
Trichlorofluoromethane	ND	580	ug/kg
Hexachlorobutadiene	ND	290	ug/kg
Isopropylbenzene	ND	290	ug/kg
Methylene chloride	ND	290	ug/kg
Naphthalene	ND	290	ug/kg
Styrene	ND	290	ug/kg
1,1,1,2-Tetrachloroethane	ND	290	ug/kg
1,1,2,2-Tetrachloroethane	ND	290	ug/kg
Tetrachloroethene	ND	290	ug/kg
Toluene	ND	290	ug/kg
1,2,4-Trichloro-benzene	ND	290	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-7

GC/MS Volatiles

Lot-Sample #...: A3C290136-007 Work Order #...: FK1111AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	290	ug/kg
1,1,2-Trichloroethane	ND	290	ug/kg
Trichloroethene	**800**	**290**	**ug/kg**
1,2,3-Trichloropropane	ND	290	ug/kg
Vinyl chloride	ND	290	ug/kg
Xylenes (total)	ND	290	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	77	(59 - 138)
1,2-Dichloroethane-d4	77	(61 - 130)
Toluene-d8	73	(60 - 143)
4-Bromofluorobenzene	75	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-7

General Chemistry

Lot-Sample #...: A3C290136-007 Work Order #...: FK111 Matrix.....: SO
Date Sampled...: 03/27/03 14:40 Date Received..: 03/29/03
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.6	10.0	%	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-8

GC/MS Volatiles

Lot-Sample #...: A3C290136-008 Work Order #...: FK1121AC Matrix.....: SO
Date Sampled...: 03/27/03 14:50 Date Received..: 03/29/03
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3093368
Dilution Factor: 1.09
% Moisture.....: 7.1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.9	ug/kg
Bromodichloromethane	ND	5.9	ug/kg
Bromoform	ND	5.9	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	5.9	ug/kg
Chlorobenzene	ND	5.9	ug/kg
Chlorodibromomethane	ND	5.9	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	5.9	ug/kg
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	5.9	ug/kg
1,2-Dichlorobenzene	ND	5.9	ug/kg
1,3-Dichlorobenzene	ND	5.9	ug/kg
1,4-Dichlorobenzene	ND	5.9	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.9	ug/kg
1,2-Dichloroethane	ND	5.9	ug/kg
cis-1,2-Dichloroethene	ND	5.9	ug/kg
trans-1,2-Dichloroethene	ND	5.9	ug/kg
1,1-Dichloroethene	ND	5.9	ug/kg
1,2-Dichloropropane	ND	5.9	ug/kg
1,3-Dichloropropane	ND	5.9	ug/kg
2,2-Dichloropropane	ND	5.9	ug/kg
1,1-Dichloropropene	ND	5.9	ug/kg
1,4-Dioxane	ND	290	ug/kg
Ethylbenzene	ND	5.9	ug/kg
Hexachlorobutadiene	ND	5.9	ug/kg
Isopropylbenzene	ND	5.9	ug/kg
Methylene chloride	ND	5.9	ug/kg
Naphthalene	ND	5.9	ug/kg
Styrene	ND	5.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg
Tetrachloroethene	ND	5.9	ug/kg
Toluene	ND	5.9	ug/kg
1,2,4-Trichloro-benzene	ND	5.9	ug/kg
1,1,1-Trichloroethane	ND	5.9	ug/kg

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-8

GC/MS Volatiles

Lot-Sample #...: A3C290136-008 Work Order #...: FK1121AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.9	ug/kg
Trichloroethene	ND	5.9	ug/kg
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.9	ug/kg
Vinyl chloride	ND	5.9	ug/kg
Xylenes (total)	ND	5.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(59 - 138)
1,2-Dichloroethane-d4	85	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	99	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: HA-8

General Chemistry

Lot-Sample #...: A3C290136-008 Work Order #...: FK112 Matrix.....: SO
Date Sampled...: 03/27/03 14:50 Date Received..: 03/29/03
% Moisture.....: 7.1

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	92.9	10.0	%	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SPLC(A0C-1) HA-2

SPLP GC/MS Volatiles

Lot-Sample #...: A3C290136-009 Work Order #...: FK1141AA Matrix.....: SO
Date Sampled...: 03/27/03 22:45 Date Received..: 03/29/03
Leach Date.....: 04/10/03 Prep Date.....: 04/15/03 Analysis Date..: 04/15/03
Leach Batch #..: P310005 Prep Batch #...: 3105206
Dilution Factor: 1
% Moisture.....: Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	**120000**	**200**	**ug/L**
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SPLC(AOC-1) HA-2

SPLP GC/MS Volatiles

Lot-Sample #...: A3C290136-009 Work Order #...: FK1141AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	100	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SPLC(A0C-3) HA-6

SPLP GC/MS Volatiles

Lot-Sample #...:	A3C290136-010	**Work Order #...:**	FK1171AA	**Matrix.....:**	SO
Date Sampled...:	03/27/03 13:40	**Date Received..:**	03/29/03		
Leach Date.....:	04/10/03	**Prep Date.....:**	04/15/03	**Analysis Date..:**	04/15/03
Leach Batch #..:	P310005	**Prep Batch #...:**	3105206		
Dilution Factor:	1				
% Moisture.....:		**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**7.1 B**	**1.0**	**ug/L**
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	**1.5**	**1.0**	**ug/L**
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SPLC(A0C-3) HA-6

SPLP GC/MS Volatiles

Lot-Sample #...: A3C290136-010 Work Order #...: FK1171AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(59 - 138)
1,2-Dichloroethane-d4	96	(61 - 130)
Toluene-d8	101	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB

GC/MS Volatiles

Lot-Sample #...: A3C290136-011 Work Order #...: FK1181AA Matrix.....: WQ
Date Sampled...: 03/28/03 09:00 Date Received..: 03/29/03
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3092533
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB

GC/MS Volatiles

Lot-Sample #...: A3C290136-011 **Work Order #...:** FK1181AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(78 - 115)
1,2-Dichloroethane-d4	105	(77 - 120)
Toluene-d8	92	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: EQ BLANK

GC/MS Volatiles

Lot-Sample #...: A3C290136-012 Work Order #...: FK1191AA Matrix.....: WQ
Date Sampled...: 03/28/03 09:00 Date Received..: 03/29/03
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3092533
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: EQ BLANK

GC/MS Volatiles

Lot-Sample #...: A3C290136-012 Work Order #...: FK1191AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(78 - 115)
1,2-Dichloroethane-d4	107	(77 - 120)
Toluene-d8	93	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 **Work Order #...:** FK8DG1AA **Matrix.....:** WATER
MB Lot-Sample #: A3D020000-533

Prep Date.....: 04/02/03
Analysis Date..: 04/02/03 **Prep Batch #...:** 3092533
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FK8DG1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(78 - 115)
1,2-Dichloroethane-d4	102	(77 - 120)
Toluene-d8	90	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FK9361AA Matrix.....: SOLID
MB Lot-Sample #: A3D030000-368

Prep Date.....: 04/02/03
Analysis Date..: 04/02/03 Prep Batch #...: 3093368
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 **Work Order #...:** FK9361AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	95	(60 - 143)
4-Bromofluorobenzene	102	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FLAQ01AA Matrix.....: SOLID
MB Lot-Sample #: A3D030000-459

Prep Date.....: 03/29/03
Analysis Date..: 04/03/03 Prep Batch #...: 3093459
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	250	ug/kg	SW846 8260B
Bromodichloromethane	ND	250	ug/kg	SW846 8260B
Bromoform	ND	250	ug/kg	SW846 8260B
Bromomethane	ND	500	ug/kg	SW846 8260B
Carbon tetrachloride	ND	250	ug/kg	SW846 8260B
Chlorobenzene	ND	250	ug/kg	SW846 8260B
Chlorodibromomethane	ND	250	ug/kg	SW846 8260B
Chloroethane	ND	500	ug/kg	SW846 8260B
Chloroform	ND	250	ug/kg	SW846 8260B
Chloromethane	ND	500	ug/kg	SW846 8260B
Dibromomethane	ND	250	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	500	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	250	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	250	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	250	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	250	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	250	ug/kg	SW846 8260B
1,4-Dioxane	ND	12000	ug/kg	SW846 8260B
Ethylbenzene	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	500	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	250	ug/kg	SW846 8260B
Isopropylbenzene	ND	250	ug/kg	SW846 8260B
Methylene chloride	ND	250	ug/kg	SW846 8260B
Naphthalene	ND	250	ug/kg	SW846 8260B
Styrene	ND	250	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
Tetrachloroethene	ND	250	ug/kg	SW846 8260B
Toluene	ND	250	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	250	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	250	ug/kg	SW846 8260B
Trichloroethene	ND	250	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FLAQ01AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	250	ug/kg	SW846 8260B
Vinyl chloride	ND	250	ug/kg	SW846 8260B
Xylenes (total)	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	88	(60 - 143)
4-Bromofluorobenzene	90	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FLAWW1AA Matrix.....: SOLID
MB Lot-Sample #: A3D030000-471

Prep Date.....: 04/03/03
Analysis Date..: 04/03/03 Prep Batch #...: 3093471
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FLAWW1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(59 - 138)
1,2-Dichloroethane-d4	76	(61 - 130)
Toluene-d8	84	(60 - 143)
4-Bromofluorobenzene	80	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

SPLP GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FLNNL1AA Matrix.....: SOLID
MB Lot-Sample #: A3D100000-396
Leach Date.....: 04/10/03 Prep Date.....: 04/15/03 Analysis Date..: 04/15/03
Leach Batch #..: P310005 Prep Batch #...: 3105206
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**6.6**	**1.0**	**ug/L**	**SW846 8260B**
Naphthalene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

SPLP GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FLNNL1AA Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(59 - 138)
1,2-Dichloroethane-d4	96	(61 - 130)
Toluene-d8	98	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A3C290136 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: FK3L41AA		MB Lot-Sample #:	A3C310000-369	
	ND	10.0	%	MCAWW 160.3 MOD	03/31-04/01/03	3090369
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FK8DG1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: A3D020000-533 FK8DG1AD-LCSD
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3092533
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**95**	**(65 - 119)**			**SW846 8260B**
	101	**(65 - 119)**	**5.8**	**(0-20)**	**SW846 8260B**
Trichloroethene	**91**	**(80 - 122)**			**SW846 8260B**
	94	**(80 - 122)**	**3.0**	**(0-20)**	**SW846 8260B**
Benzene	**94**	**(79 - 116)**			**SW846 8260B**
	95	**(79 - 116)**	**1.5**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(76 - 119)**			**SW846 8260B**
	96	**(76 - 119)**	**0.69**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(81 - 115)**			**SW846 8260B**
	98	**(81 - 115)**	**0.18**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(78 - 115)
	98	(78 - 115)
1,2-Dichloroethane-d4	97	(77 - 120)
	97	(77 - 120)
Toluene-d8	94	(78 - 111)
	92	(78 - 111)
4-Bromofluorobenzene	95	(80 - 114)
	95	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 **Work Order #...:** FK9361AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3D030000-368 FK9361AD-LCSD
Prep Date.....: 04/02/03 **Analysis Date..:** 04/02/03
Prep Batch #...: 3093368
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**98**	**(55 - 142)**			**SW846 8260B**
	104	**(55 - 142)**	**6.4**	**(0-27)**	**SW846 8260B**
Trichloroethene	**84**	**(70 - 131)**			**SW846 8260B**
	88	**(70 - 131)**	**4.8**	**(0-23)**	**SW846 8260B**
Benzene	**94**	**(75 - 129)**			**SW846 8260B**
	98	**(75 - 129)**	**4.1**	**(0-20)**	**SW846 8260B**
Toluene	**89**	**(71 - 130)**			**SW846 8260B**
	92	**(71 - 130)**	**4.1**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**93**	**(75 - 127)**			**SW846 8260B**
	97	**(75 - 127)**	**3.6**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(59 - 138)
	98	(59 - 138)
1,2-Dichloroethane-d4	82	(61 - 130)
	90	(61 - 130)
Toluene-d8	92	(60 - 143)
	100	(60 - 143)
4-Bromofluorobenzene	102	(47 - 158)
	110	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 **Work Order #...:** FLAQ01AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A3D030000-459 FLAQ01AD-LCSD
Prep Date.....: 03/29/03 **Analysis Date..:** 04/03/03
Prep Batch #...: 3093459
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**88**	**(75 - 129)**			**SW846 8260B**
	92	**(75 - 129)**	**4.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**86**	**(75 - 127)**			**SW846 8260B**
	90	**(75 - 127)**	**4.6**	**(0-22)**	**SW846 8260B**
1,1-Dichloroethene	**83**	**(55 - 142)**			**SW846 8260B**
	94	**(55 - 142)**	**12**	**(0-27)**	**SW846 8260B**
Toluene	**81**	**(71 - 130)**			**SW846 8260B**
	85	**(71 - 130)**	**5.5**	**(0-24)**	**SW846 8260B**
Trichloroethene	**77**	**(70 - 131)**			**SW846 8260B**
	82	**(70 - 131)**	**7.3**	**(0-23)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(59 - 138)
	91	(59 - 138)
1,2-Dichloroethane-d4	90	(61 - 130)
	89	(61 - 130)
Toluene-d8	83	(60 - 143)
	88	(60 - 143)
4-Bromofluorobenzene	89	(47 - 158)
	93	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FLAWW1AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: A3D030000-471 FLAWW1AD-LCSD
Prep Date.....: 04/03/03 Analysis Date..: 04/03/03
Prep Batch #...: 3093471
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	82	(55 - 142)			SW846 8260B
	79	(55 - 142)	3.5	(0-27)	SW846 8260B
Trichloroethene	83	(70 - 131)			SW846 8260B
	81	(70 - 131)	1.9	(0-23)	SW846 8260B
Benzene	88	(75 - 129)			SW846 8260B
	87	(75 - 129)	0.67	(0-20)	SW846 8260B
Toluene	92	(71 - 130)			SW846 8260B
	93	(71 - 130)	0.98	(0-24)	SW846 8260B
Chlorobenzene	91	(75 - 127)			SW846 8260B
	92	(75 - 127)	0.94	(0-22)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(59 - 138)
	82	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
	76	(61 - 130)
Toluene-d8	86	(60 - 143)
	87	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)
	84	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FLXFJ1AA-LCS Matrix.....: SOLID
LCS Lot-Sample#: A3D150000-206 FLXFJ1AC-LCSD
Prep Date.....: 04/15/03 Analysis Date..: 04/15/03
Prep Batch #...: 3105206
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	100	(55 - 142)			SW846 8260B
	98	(55 - 142)	2.0	(0-27)	SW846 8260B
Trichloroethene	78	(70 - 131)			SW846 8260B
	76	(70 - 131)	2.2	(0-23)	SW846 8260B
Benzene	88	(75 - 129)			SW846 8260B
	86	(75 - 129)	3.1	(0-20)	SW846 8260B
Toluene	89	(71 - 130)			SW846 8260B
	87	(71 - 130)	2.7	(0-24)	SW846 8260B
Chlorobenzene	84	(75 - 127)			SW846 8260B
	81	(75 - 127)	3.6	(0-22)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
	92	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
	89	(61 - 130)
Toluene-d8	103	(60 - 143)
	100	(60 - 143)
4-Bromofluorobenzene	106	(47 - 158)
	102	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3C290136 Work Order #...: FKV491AC-MS Matrix.....: WATER
MS Lot-Sample #: A3C270254-004 FKV491AD-MSD
Date Sampled...: 03/26/03 13:15 Date Received..: 03/27/03
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3092533
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	95	(57 - 138)			SW846 8260B
	97	(57 - 138)	1.8	(0-15)	SW846 8260B
Trichloroethene	84	(58 - 141)			SW846 8260B
	87	(58 - 141)	2.0	(0-17)	SW846 8260B
Benzene	93	(73 - 123)			SW846 8260B
	95	(73 - 123)	2.9	(0-11)	SW846 8260B
Toluene	93	(67 - 129)			SW846 8260B
	93	(67 - 129)	0.67	(0-14)	SW846 8260B
Chlorobenzene	96	(70 - 122)			SW846 8260B
	98	(70 - 122)	2.0	(0-14)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(78 - 115)
	101	(78 - 115)
1,2-Dichloroethane-d4	108	(77 - 120)
	103	(77 - 120)
Toluene-d8	95	(78 - 111)
	95	(78 - 111)
4-Bromofluorobenzene	97	(80 - 114)
	95	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3C290136 **Work Order #...:** FK2AQ-SMP FK2AQ-DUP **Matrix.....:** SOLID

Date Sampled...: 03/28/03 15:54 **Date Received..:** 03/29/03

% Moisture.....: 23

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #:	A3C290174-039	
	76.8	72.0	%	6.4	(0-20)	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A3C290136 **Work Order #...:** FK2C8-SMP FK2C8-DUP **Matrix.....:** SOLID

Date Sampled...: 03/28/03 13:30 **Date Received..:** 03/29/03

% Moisture.....: 12

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #:	A3C290183-001	
	88.0	88.7	%	0.84	(0-20)	MCAWW 160.3 MOD	03/31-04/01/03	3090369

Dilution Factor: 1

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client: MACTEC Consultants	Project Manager: Rhonda Quinn	Date: 3-28-03	Chain of Custody Number: 164556
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: 770-421-3400	Lab Number: 330-497-9396	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: David Kolb	Lab Contact: Roger Toth	
Project Name and Location (State): TK-Louisville-Louisville Georgia	Carrier/Waybill Number: FedEX 1279 20834		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOC 8260/5035	Moisture	SPLP VOC 8260	Special Instructions/ Conditions of Receipt
HA-1	3-27-03	0855				✓							3	1		
HA-2	3-27-03	0930				✓							3	1		
HA-3	3-27-03	1000				✓							3	1		
HA-4	3-27-03	1030				✓							3	1		
HA-5	3-27-03	1040				✓							3	1		
HA-6	3-27-03	1340				✓							3	1		
HA-7	3-27-03	1440				✓							3	1		
HA-8	3-27-03	1450				✓							3	1		
SPLC (AOC-1) HA-2	3-27-03	1045				✓									1	
SPLC (AOC-3) HA-6	3-27-03	1340				✓									1	
TB	3-28-03	0900		✓						✓					2	
EQ BLANK	3-28-03	0900		✓						✓					3	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other Normal TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Charlotte Clark	3-28-03	1000	1. Received By: [signature]	3-29-03	940
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

GROUND WATER

SAMPLE SUMMARY

A3B060250

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FG8G2	001	SB-113: 0'-2'	02/05/03	11:10
FG8G7	002	SB-113: 4'-6'	02/05/03	11:20
FG8HD	003	SB-113: 40'-42'	02/05/03	10:45
FG8HF	004	SB-113: UPPERMOST 43.5-47.5	02/05/03	11:00
FG8HH	005	SB-113: TWIGGS CLAY 57-62	02/05/03	12:45
FG8HJ	006	TRIP BLANK NO. 2	02/05/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: UPPERMOST

GC/MS Volatiles

Lot-Sample #...: A3B060250-004 **Work Order #...:** FG8HF1AA **Matrix.....:** WG
Date Sampled...: 02/05/03 11:00 **Date Received..:** 02/06/03
Prep Date.....: 02/12/03 **Analysis Date..:** 02/12/03
Prep Batch #...: 3044145
Dilution Factor: 3.33 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	3.3	ug/L
Bromodichloromethane	ND	3.3	ug/L
Bromoform	ND	3.3	ug/L
Bromomethane	ND	3.3	ug/L
Carbon tetrachloride	ND	3.3	ug/L
Chlorobenzene	ND	3.3	ug/L
Chlorodibromomethane	ND	3.3	ug/L
Chloroethane	ND	3.3	ug/L
Chloroform	ND	3.3	ug/L
Chloromethane	ND	3.3	ug/L
Dibromomethane	ND	3.3	ug/L
1,2-Dichlorobenzene	ND	3.3	ug/L
1,3-Dichlorobenzene	ND	3.3	ug/L
1,4-Dichlorobenzene	ND	3.3	ug/L
Dichlorodifluoromethane	ND	3.3	ug/L
1,1-Dichloroethane	ND	3.3	ug/L
1,2-Dichloroethane	ND	3.3	ug/L
cis-1,2-Dichloroethene	ND	1.7	ug/L
trans-1,2-Dichloroethene	ND	1.7	ug/L
1,1-Dichloroethene	ND	3.3	ug/L
1,2-Dichloropropane	ND	3.3	ug/L
1,3-Dichloropropane	ND	3.3	ug/L
2,2-Dichloropropane	ND	3.3	ug/L
1,1-Dichloropropene	ND	3.3	ug/L
1,4-Dioxane	ND	170	ug/L
Ethylbenzene	ND	3.3	ug/L
Hexachlorobutadiene	ND	3.3	ug/L
Isopropylbenzene	ND	3.3	ug/L
Methylene chloride	ND	3.3	ug/L
Naphthalene	ND	3.3	ug/L
Styrene	ND	3.3	ug/L
1,1,1,2-Tetrachloroethane	ND	3.3	ug/L
1,1,2,2-Tetrachloroethane	ND	3.3	ug/L
Tetrachloroethene	ND	3.3	ug/L
Toluene	ND	3.3	ug/L
1,2,4-Trichloro-benzene	ND	3.3	ug/L
1,1,1-Trichloroethane	ND	3.3	ug/L
1,1,2-Trichloroethane	ND	3.3	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: UPPERMOST

GC/MS Volatiles

Lot-Sample #...: A3B060250-004 **Work Order #...:** FG8HF1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**93**	**3.3**	**ug/L**
Trichlorofluoromethane	ND	3.3	ug/L
1,2,3-Trichloropropane	ND	3.3	ug/L
Vinyl chloride	ND	3.3	ug/L
Xylenes (total)	ND	3.3	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	76	(73 - 122)
1,2-Dichloroethane-d4	74	(61 - 128)
Toluene-d8	87	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: TWIGGS CLAY

GC/MS Volatiles

Lot-Sample #...: A3B060250-005 **Work Order #...:** FG8HH1AA **Matrix.....:** WG
Date Sampled...: 02/05/03 12:45 **Date Received..:** 02/06/03
Prep Date.....: 02/12/03 **Analysis Date..:** 02/12/03
Prep Batch #...: 3044145
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**1.2**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	50	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-113: TWIGGS CLAY

GC/MS Volatiles

Lot-Sample #...: A3B060250-005 Work Order #...: FG8HH1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**20**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	77	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client: MacTec, Inc.	Project Manager: Rhonda Quinn	Date: 2/5/03	Chain of Custody Number: 163929
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact: Bob Seymour	Lab Contact: Roger Toth	
Project Name and Location (State): TK Louisville / GA	Carrier/Waybill Number: Fed Ex: 837652971662		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	% Moisture	VOA/SPLP	8260B		Physical Test							Special Instructions/ Conditions of Receipt
SB-113: 0'-2'	2/5/03	11:10				X	2								2										For questions
SB-113: 4'-6'	2/5	11:20				X	4						3	1											call Rhonda Quinn
SB-113: 40'-42'	2/5	10:45				X	4						3	1											at (770) 421-3400
SB-113: Uppermost	2/5	11:00		X						3						3									
SB-113: Twiggs Clay	2/5	12:45		X						3						3									Shelby Tube
Trip Blank No. 2	2/5	—								2						2									shipped separately
SB-113: 43'-45' (Shelby Tube)						X	1											1							

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: B. A. Seymour To: Fed Ex	Date: 2/5/03	Time: 14:00	1. Received By: [signature]	Date: 2/6/03	Time: 1015
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3B070115

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FG9LV	001	SB-114:0'-2'	02/05/03	15:30
FG9LX	002	SB-114:22'-24'	02/05/03	17:15
FG9L0	003	SB-114:42'-44'	02/05/03	17:30
FG9L2	004	SB-114:UPPERMOST 45-48	02/05/03	17:10
FG9L3	005	SB-114:TWIGGS CLAY 60-65	02/06/03	08:30
FG9L4	006	TRIP BLANK NO. 3	02/06/03	
FG9L5	007	SB-101:0'-2'	02/06/03	10:45
FG9L6	008	SB-101:12'-14'	02/06/03	12:10
FG9L7	009	SB-101:36'-38'	02/06/03	12:20
FG9L9	010	SB-201:6'-8'	02/06/03	09:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:UPPERMOST

GC/MS Volatiles

Lot-Sample #...: A3B070115-004 Work Order #...: FG9L21AA Matrix.....: WG
Date Sampled...: 02/05/03 17:10 Date Received..: 02/07/03
Prep Date.....: 02/11/03 Analysis Date..: 02/11/03
Prep Batch #...: 3043288
Dilution Factor: 25 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	25	ug/L
Bromodichloromethane	ND	25	ug/L
Bromoform	ND	25	ug/L
Bromomethane	ND	25	ug/L
Carbon tetrachloride	ND	25	ug/L
Chlorobenzene	ND	25	ug/L
Chlorodibromomethane	ND	25	ug/L
Chloroethane	ND	25	ug/L
Chloroform	ND	25	ug/L
Chloromethane	ND	25	ug/L
Dibromomethane	ND	25	ug/L
1,2-Dichlorobenzene	ND	25	ug/L
1,3-Dichlorobenzene	ND	25	ug/L
1,4-Dichlorobenzene	ND	25	ug/L
Dichlorodifluoromethane	ND	25	ug/L
1,1-Dichloroethane	ND	25	ug/L
1,2-Dichloroethane	ND	25	ug/L
cis-1,2-Dichloroethene	**27**	**12**	**ug/L**
trans-1,2-Dichloroethene	ND	12	ug/L
1,1-Dichloroethene	**72**	**25**	**ug/L**
1,2-Dichloropropane	ND	25	ug/L
1,3-Dichloropropane	ND	25	ug/L
2,2-Dichloropropane	ND	25	ug/L
1,1-Dichloropropene	ND	25	ug/L
1,4-Dioxane	ND	1200	ug/L
Ethylbenzene	ND	25	ug/L
Hexachlorobutadiene	ND	25	ug/L
Isopropylbenzene	ND	25	ug/L
Methylene chloride	ND	25	ug/L
Naphthalene	ND	25	ug/L
Styrene	ND	25	ug/L
1,1,1,2-Tetrachloroethane	ND	25	ug/L
1,1,2,2-Tetrachloroethane	ND	25	ug/L
Tetrachloroethene	ND	25	ug/L
Toluene	ND	25	ug/L
1,2,4-Trichloro-benzene	ND	25	ug/L
1,1,1-Trichloroethane	**270**	**25**	**ug/L**
1,1,2-Trichloroethane	ND	25	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:UPPERMOST

GC/MS Volatiles

Lot-Sample #...: A3B070115-004 **Work Order #...:** FG9L21AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**700**	**25**	**ug/L**
Trichlorofluoromethane	ND	25	ug/L
1,2,3-Trichloropropane	ND	25	ug/L
Vinyl chloride	ND	25	ug/L
Xylenes (total)	ND	25	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:TWIGGS CLAY

GC/MS Volatiles

Lot-Sample #...: A3B070115-005 **Work Order #...:** FG9L31AA **Matrix.....:** WG
Date Sampled...: 02/06/03 08:30 **Date Received..:** 02/07/03
Prep Date.....: 02/11/03 **Analysis Date..:** 02/11/03
Prep Batch #...: 3043288
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**1.0**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	50	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	**2.7**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-114:TWIGGS CLAY

GC/MS Volatiles

Lot-Sample #...: A3B070115-005 Work Order #...: FG9L31AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**13**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

Chain of Custody Record

STL-4124 (0901)

SEVERN TRENT SERVICES

Severn Trent Laboratories, Inc.

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Client: MacTec, Inc.	Project Manager: Rhonda Quinn	Date: 2/6/03	Chain of Custody Number: 163927
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact: Bob Seymour; Lab Contact: Roger Toth		
Project Name and Location (State): TK Louisville / GA	Carrier/Waybill Number: Fed Ex: 837652971684		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8260B/5035	Moisture	VOA/SPLP	8260B	Special Instructions/ Conditions of Receipt
SB-114: 0'-2'	2/5/03	15:30				X	4						3	1			For questions call
SB-114: 0'-2' MS/MSD	2/5	15:30				X	8						6	2			Rhonda Quinn at
SB-114: 22'-24'	2/5	17:15				X	4						3	1			(770) 421-3400
SB-114: 22'-24'	2/5	17:15				X	2								2		
SB-114: 42'-44'	2/5	17:30				X	4						3	1			
SB-114: Uppermost	2/5	17:10		X						3						3	
SB-114: Twiggs Clay	2/6	08:30		X						3						3	
Trip Blank No. 3	2/6	—		X						2						2	
SB-101: 0'-2'	2/6	10:45				X	4						3	1			
SB-101: 12'-14'	2/6	12:10				X	4						3	1			
SB-101: 36'-38'	2/6	12:20				X	4						3	1			
SB-201: 6'-8'	2/6	09:30				X	4						3	1			

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: R. A. Seymour To Fed Ex	2/6/03	15:00	1. Received By: [signature]	2-7-03	0935 ~~0800~~ (SD)
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report. CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3C140142

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FJ56D	001	SB-117: 0'-2'	03/12/03	15:45
FJ56H	002	SB-117: 12'-14'	03/12/03	17:45
FJ56J	003	SB-117: 44'-46'	03/12/03	18:00
FJ56K	004	SB-115: 0'-2'	03/13/03	08:15
FJ56V	005	SB-115: 11'-13'	03/13/03	08:50
FJ562	006	SB-115: 18'-20'	03/13/03	09:15
FJ565	007	RINSATE	03/13/03	08:00
FJ57A	008	SB-115: UPPERMOST ZONE	03/13/03	10:15
FJ57E	009	SB-115: TWIGGS CLAY	03/13/03	11:30
FJ57M	010	SB-116: 0-2'	03/12/03	12:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
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- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: UPPERMOST ZONE

GC/MS Volatiles

Lot-Sample #...: A3C140142-008 **Work Order #...:** FJ57A1AA **Matrix.....:** WG
Date Sampled...: 03/13/03 10:15 **Date Received..:** 03/14/03
Prep Date.....: 03/17/03 **Analysis Date..:** 03/17/03
Prep Batch #...: 3077458
Dilution Factor: 8.33 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	42	ug/L
Bromoform	ND	42	ug/L
Bromomethane	ND	42	ug/L
Carbon tetrachloride	ND	42	ug/L
Chlorobenzene	ND	42	ug/L
Chlorodibromomethane	ND	42	ug/L
Chloroethane	ND	42	ug/L
Chloroform	ND	42	ug/L
Chloromethane	ND	42	ug/L
Dibromomethane	ND	42	ug/L
1,2-Dichlorobenzene	ND	42	ug/L
1,3-Dichlorobenzene	ND	42	ug/L
1,4-Dichlorobenzene	ND	42	ug/L
Dichlorodifluoromethane	ND	42	ug/L
1,1-Dichloroethane	ND	42	ug/L
1,2-Dichloroethane	ND	42	ug/L
cis-1,2-Dichloroethene	ND	21	ug/L
trans-1,2-Dichloroethene	ND	21	ug/L
1,1-Dichloroethene	ND	42	ug/L
1,2-Dichloropropane	ND	42	ug/L
1,3-Dichloropropane	ND	42	ug/L
2,2-Dichloropropane	ND	42	ug/L
1,1-Dichloropropene	ND	42	ug/L
1,4-Dioxane	ND	1700	ug/L
Ethylbenzene	ND	42	ug/L
Hexachlorobutadiene	ND	42	ug/L
Isopropylbenzene	ND	42	ug/L
Methylene chloride	ND	42	ug/L
Naphthalene	ND	42	ug/L
Styrene	ND	42	ug/L
1,1,1,2-Tetrachloroethane	ND	42	ug/L
1,1,2,2-Tetrachloroethane	ND	42	ug/L
Tetrachloroethene	ND	42	ug/L
Toluene	ND	42	ug/L
1,2,4-Trichloro-benzene	ND	42	ug/L
1,1,1-Trichloroethane	ND	42	ug/L
1,1,2-Trichloroethane	ND	42	ug/L
Trichloroethene	**780**	**42**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: UPPERMOST ZONE

GC/MS Volatiles

Lot-Sample #...: A3C140142-008 **Work Order #...:** FJ57A1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	42	ug/L
1,2,3-Trichloropropane	ND	42	ug/L
Vinyl chloride	ND	42	ug/L
Xylenes (total)	ND	42	ug/L
Bromodichloromethane	ND	42	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(78 - 115)
1,2-Dichloroethane-d4	89	(77 - 120)
Toluene-d8	95	(78 - 111)
4-Bromofluorobenzene	94	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: TWIGGS CLAY

GC/MS Volatiles

Lot-Sample #...: A3C140142-009 **Work Order #...:** FJ57E1AA **Matrix.....:** WG
Date Sampled...: 03/13/03 11:30 **Date Received..:** 03/14/03
Prep Date.....: 03/17/03 **Analysis Date..:** 03/17/03
Prep Batch #...: 3077458
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-115: TWIGGS CLAY

GC/MS Volatiles

Lot-Sample #...: A3C140142-009 Work Order #...: FJ57E1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(78 - 115)
1,2-Dichloroethane-d4	88	(77 - 120)
Toluene-d8	99	(78 - 111)
4-Bromofluorobenzene	97	(80 - 114)

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MacTec	Rhonda Quinn	3/13/03	163933
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr. Suite 100	(770) 421-3400 / (770) 421-3486		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Bob Seymour	Roger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville / GA	Fed Ex: 835321295101		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	8260B	Special Instructions/ Conditions of Receipt
SB-117: 0'-2'	3/12/03	15:45				X	4						3	1		For questions
SB-117: 12'-14'	3/12	17:45				X	4						3	1		call Rhonda
SB-117: 44'-46'	3/12	18:00				X	4						3	1		Quinn at
SB-115: 0'-2'	3/13	08:15				X	4						3	1		(770) 421-3400
SB-115: 11'-13'	3/13	08:50				X	4						3	1		
SB-115: 18'-20'	3/13	09:15				X	4						3	1		
Rinsate	3/13	08:00		X						3					3	
SB-115: Uppermost Zone	3/13	10:15		X						3					3	
SB-115: Twiggs Clay	3/13	11:30		X						3					3	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: R. A. Lyman To: Fed Ex	3/13/03	15:00	1. Received By	3-14-03	1015
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3C270254

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FKV32	001	SB-118:0'-2'	03/26/03	11:45
FKV4K	002	SB-118:4'-5'	03/26/03	12:10
FKV40	003	SB-118:UPPERMOST ZONE 6-10	03/26/03	12:30
FKV49	004	SB-118:TWIGGS 17-21	03/26/03	13:15

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-118:UPPERMOST ZONE

GC/MS Volatiles

Lot-Sample #...: A3C270254-003 Work Order #...: FKV401AA Matrix.....: WG
Date Sampled...: 03/26/03 12:30 Date Received..: 03/27/03
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3092533
Dilution Factor: 3.33 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	17	ug/L
Bromoform	ND	17	ug/L
Bromomethane	ND	17	ug/L
Carbon tetrachloride	ND	17	ug/L
Chlorobenzene	ND	17	ug/L
Chlorodibromomethane	ND	17	ug/L
Chloroethane	ND	17	ug/L
Chloroform	ND	17	ug/L
Chloromethane	ND	17	ug/L
Dibromomethane	ND	17	ug/L
1,2-Dichlorobenzene	ND	17	ug/L
1,3-Dichlorobenzene	ND	17	ug/L
1,4-Dichlorobenzene	ND	17	ug/L
Dichlorodifluoromethane	ND	17	ug/L
1,1-Dichloroethane	ND	17	ug/L
1,2-Dichloroethane	ND	17	ug/L
cis-1,2-Dichloroethene	**9.6**	**8.3**	**ug/L**
trans-1,2-Dichloroethene	ND	8.3	ug/L
1,1-Dichloroethene	ND	17	ug/L
1,2-Dichloropropane	ND	17	ug/L
1,3-Dichloropropane	ND	17	ug/L
2,2-Dichloropropane	ND	17	ug/L
1,1-Dichloropropene	ND	17	ug/L
1,4-Dioxane	ND	670	ug/L
Ethylbenzene	ND	17	ug/L
Hexachlorobutadiene	ND	17	ug/L
Isopropylbenzene	ND	17	ug/L
Methylene chloride	ND	17	ug/L
Naphthalene	ND	17	ug/L
Styrene	ND	17	ug/L
1,1,1,2-Tetrachloroethane	ND	17	ug/L
1,1,2,2-Tetrachloroethane	ND	17	ug/L
Tetrachloroethene	ND	17	ug/L
Toluene	ND	17	ug/L
1,2,4-Trichloro-benzene	ND	17	ug/L
1,1,1-Trichloroethane	ND	17	ug/L
1,1,2-Trichloroethane	ND	17	ug/L
Trichloroethene	**560**	**17**	**ug/L**

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-118:UPPERMOST ZONE

GC/MS Volatiles

Lot-Sample #...: A3C270254-003 Work Order #...: FKV401AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	17	ug/L
1,2,3-Trichloropropane	ND	17	ug/L
Vinyl chloride	ND	17	ug/L
Xylenes (total)	ND	17	ug/L
Bromodichloromethane	ND	17	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(78 - 115)
1,2-Dichloroethane-d4	106	(77 - 120)
Toluene-d8	92	(78 - 111)
4-Bromofluorobenzene	88	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SB-118:TWIGGS

GC/MS Volatiles

Lot-Sample #...: A3C270254-004 Work Order #...: FKV491AA Matrix.....: WG
Date Sampled...: 03/26/03 13:15 Date Received..: 03/27/03
Prep Date.....: 04/02/03 Analysis Date..: 04/02/03
Prep Batch #...: 3092533
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	**32**	**5.0**	**ug/L**

(Continued on next page)

Chain of Custody Record

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SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: MacTec	Project Manager: Rhonda Quinn	Date: 3/26/03	Chain of Custody Number: 154002
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Bob Seymour	Lab Contact: Rogen Toth	
Project Name and Location (State): TK Louisville / GA	Carrier/Waybill Number: Fed Ex: 835321295086		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/5035	Moisture	8260B	Special Instructions/ Conditions of Receipt
SB-118; 0'-2'	3/26/03	11:45				X	4						3	1		For questions
SB-118; 4'-5'	3/26	12:10				X	4						3	1		call Rhonda
SB-118; Uppermost Zone	3/26	12:30								3					3	Quinn at
SB-118; Twiggs	3/26	13:15								3					3	(770) 421-3400

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: R.A. Seymour To: Fed Ex	Date: 3/26/03	Time: 15:00	1. Received By:	Date: 3/27/03	Time: 0905
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report: CANARY - Stays with the Sample: PINK - Field Copy

SAMPLE SUMMARY

A3B200235

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FHX36	001	MW-1	02/19/03	12:25
FHX4C	002	MW-2	02/19/03	11:45
FHX4E	003	EQB-1	02/19/03	13:57
FHX4F	004	EQB-2	02/19/03	14:50
FHX4G	005	TB-21903	02/19/03	08:00
FHX4J	006	MW-3	02/18/03	17:30
FHX4M	007	MW-6	02/18/03	11:05
FHX4N	008	TB-1	02/18/03	08:00
FHX4P	009	MW-4	02/18/03	17:50
FHX4R	010	MW-5	02/18/03	12:05
FHX4T	011	MW-300	02/18/03	12:00
FHX4V	012	TB-2	02/18/03	08:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK-LOUISVILLE

Lot #: A3B200235

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

March 3, 2003

CASE NARRATIVE

A3B200235

The following report contains the analytical results for twelve water samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK - Louisville site. The samples were received on February 20, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on February 28, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the coolers upon sample receipt was 2.2, 0.2 and 0.1° C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3B200235

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-1 02/19/03 12:25 001				
Chloroform	1.8	1.0	ug/L	SW846 8260B
MW-3 02/18/03 17:30 006				
Chloroform	3.9	2.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	3.8	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	13	2.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	57	2.0	ug/L	SW846 8260B
Trichloroethene	69	2.0	ug/L	SW846 8260B
MW-4 02/18/03 17:50 009				
Chloroform	3.1	1.0	ug/L	SW846 8260B
Trichloroethene	2.6	1.0	ug/L	SW846 8260B
MW-5 02/18/03 12:05 010				
cis-1,2-Dichloroethene	15	12	ug/L	SW846 8260B
1,1-Dichloroethene	44	25	ug/L	SW846 8260B
1,1,1-Trichloroethane	45	25	ug/L	SW846 8260B
Trichloroethene	730	25	ug/L	SW846 8260B
MW-300 02/18/03 12:00 011				
Chloroform	3.5	2.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	3.4	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	13	2.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	54	2.0	ug/L	SW846 8260B
Trichloroethene	67	2.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3B200235

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: A3B200235-001 **Work Order #...:** FHX361AA **Matrix.....:** WG
Date Sampled...: 02/19/03 12:25 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: A3B200235-001 **Work Order #...:** FHX361AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: A3B200235-002 **Work Order #...:** FHX4C1AA **Matrix.....:** WG
Date Sampled...: 02/19/03 11:45 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: A3B200235-002 **Work Order #...:** FHX4C1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: EQB-1

GC/MS Volatiles

Lot-Sample #...: A3B200235-003 **Work Order #...:** FHX4E1AA **Matrix.....:** WQ
Date Sampled...: 02/19/03 13:57 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: EQB-1

GC/MS Volatiles

Lot-Sample #...: A3B200235-003 **Work Order #...:** FHX4E1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: EQB-2

GC/MS Volatiles

Lot-Sample #...: A3B200235-004 **Work Order #...:** FHX4F1AA **Matrix.....:** WQ
Date Sampled...: 02/19/03 14:50 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: EQB-2

GC/MS Volatiles

Lot-Sample #...: A3B200235-004 **Work Order #...:** FHX4F1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-21903

GC/MS Volatiles

Lot-Sample #...: A3B200235-005 **Work Order #...:** FHX4G1AA **Matrix.....:** WQ
Date Sampled...: 02/19/03 08:00 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-21903

GC/MS Volatiles

Lot-Sample #...: A3B200235-005 **Work Order #...:** FHX4G1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: A3B200235-006 **Work Order #...:** FHX4J1AA **Matrix.....:** WG
Date Sampled...: 02/18/03 17:30 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	10	ug/L
Bromodichloromethane	ND	10	ug/L
Bromoform	ND	10	ug/L
Bromomethane	ND	10	ug/L
Carbon tetrachloride	ND	10	ug/L
Chlorobenzene	ND	10	ug/L
Chlorodibromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	10	ug/L
Chloromethane	ND	10	ug/L
Dibromomethane	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	10	ug/L
1,2-Dichloroethane	ND	10	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	**13**	**10**	**ug/L**
1,2-Dichloropropane	ND	10	ug/L
1,3-Dichloropropane	ND	10	ug/L
2,2-Dichloropropane	ND	10	ug/L
1,1-Dichloropropene	ND	10	ug/L
1,4-Dioxane	ND	400	ug/L
Ethylbenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Isopropylbenzene	ND	10	ug/L
Methylene chloride	ND	10	ug/L
Naphthalene	ND	10	ug/L
Styrene	ND	10	ug/L
1,1,1,2-Tetrachloroethane	ND	10	ug/L
1,1,2,2-Tetrachloroethane	ND	10	ug/L
Tetrachloroethene	ND	10	ug/L
Toluene	ND	10	ug/L
1,2,4-Trichloro-benzene	ND	10	ug/L
1,1,1-Trichloroethane	**57**	**10**	**ug/L**
1,1,2-Trichloroethane	ND	10	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: A3B200235-006 **Work Order #...:** FHX4J1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**69**	**10**	**ug/L**
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	10	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-6

GC/MS Volatiles

Lot-Sample #...: A3B200235-007 Work Order #...: FHX4M1AA Matrix.....: WG
Date Sampled...: 02/18/03 11:05 Date Received..: 02/20/03
Prep Date.....: 02/24/03 Analysis Date..: 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-6

GC/MS Volatiles

Lot-Sample #...: A3B200235-007 **Work Order #...:** FHX4M1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-1

GC/MS Volatiles

Lot-Sample #...: A3B200235-008 Work Order #...: FHX4N1AA Matrix.....: WQ
Date Sampled...: 02/18/03 08:00 Date Received..: 02/20/03
Prep Date.....: 02/24/03 Analysis Date..: 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-1

GC/MS Volatiles

Lot-Sample #...: A3B200235-008 **Work Order #...:** FHX4N1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: A3B200235-009 **Work Order #...:** FHX4P1AA **Matrix.....:** WG
Date Sampled...: 02/18/03 17:50 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: A3B200235-009 **Work Order #...:** FHX4P1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A3B200235-010 **Work Order #...:** FHX4R1AA **Matrix.....:** WG
Date Sampled...: 02/18/03 12:05 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 25 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	25	ug/L
Bromodichloromethane	ND	25	ug/L
Bromoform	ND	25	ug/L
Bromomethane	ND	25	ug/L
Carbon tetrachloride	ND	25	ug/L
Chlorobenzene	ND	25	ug/L
Chlorodibromomethane	ND	25	ug/L
Chloroethane	ND	25	ug/L
Chloroform	ND	25	ug/L
Chloromethane	ND	25	ug/L
Dibromomethane	ND	25	ug/L
1,2-Dichlorobenzene	ND	25	ug/L
1,3-Dichlorobenzene	ND	25	ug/L
1,4-Dichlorobenzene	ND	25	ug/L
Dichlorodifluoromethane	ND	25	ug/L
1,1-Dichloroethane	ND	25	ug/L
1,2-Dichloroethane	ND	25	ug/L
cis-1,2-Dichloroethene	**15**	**12**	**ug/L**
trans-1,2-Dichloroethene	ND	12	ug/L
1,1-Dichloroethene	**44**	**25**	**ug/L**
1,2-Dichloropropane	ND	25	ug/L
1,3-Dichloropropane	ND	25	ug/L
2,2-Dichloropropane	ND	25	ug/L
1,1-Dichloropropene	ND	25	ug/L
1,4-Dioxane	ND	1200	ug/L
Ethylbenzene	ND	25	ug/L
Hexachlorobutadiene	ND	25	ug/L
Isopropylbenzene	ND	25	ug/L
Methylene chloride	ND	25	ug/L
Naphthalene	ND	25	ug/L
Styrene	ND	25	ug/L
1,1,1,2-Tetrachloroethane	ND	25	ug/L
1,1,2,2-Tetrachloroethane	ND	25	ug/L
Tetrachloroethene	ND	25	ug/L
Toluene	ND	25	ug/L
1,2,4-Trichloro-benzene	ND	25	ug/L
1,1,1-Trichloroethane	**45**	**25**	**ug/L**
1,1,2-Trichloroethane	ND	25	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A3B200235-010 Work Order #...: FHX4R1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**730**	**25**	**ug/L**
Trichlorofluoromethane	ND	25	ug/L
1,2,3-Trichloropropane	ND	25	ug/L
Vinyl chloride	ND	25	ug/L
Xylenes (total)	ND	25	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-300

GC/MS Volatiles

Lot-Sample #...: A3B200235-011 **Work Order #...:** FHX4T1AA **Matrix.....:** WG
Date Sampled...: 02/18/03 12:00 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	10	ug/L
Bromodichloromethane	ND	10	ug/L
Bromoform	ND	10	ug/L
Bromomethane	ND	10	ug/L
Carbon tetrachloride	ND	10	ug/L
Chlorobenzene	ND	10	ug/L
Chlorodibromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	10	ug/L
Chloromethane	ND	10	ug/L
Dibromomethane	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	10	ug/L
1,2-Dichloroethane	ND	10	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	**13**	**10**	**ug/L**
1,2-Dichloropropane	ND	10	ug/L
1,3-Dichloropropane	ND	10	ug/L
2,2-Dichloropropane	ND	10	ug/L
1,1-Dichloropropene	ND	10	ug/L
1,4-Dioxane	ND	400	ug/L
Ethylbenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Isopropylbenzene	ND	10	ug/L
Methylene chloride	ND	10	ug/L
Naphthalene	ND	10	ug/L
Styrene	ND	10	ug/L
1,1,1,2-Tetrachloroethane	ND	10	ug/L
1,1,2,2-Tetrachloroethane	ND	10	ug/L
Tetrachloroethene	ND	10	ug/L
Toluene	ND	10	ug/L
1,2,4-Trichloro-benzene	ND	10	ug/L
1,1,1-Trichloroethane	**54**	**10**	**ug/L**
1,1,2-Trichloroethane	ND	10	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-300

GC/MS Volatiles

Lot-Sample #...: A3B200235-011 **Work Order #...:** FHX4T1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**67**	**10**	**ug/L**
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	10	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-2

GC/MS Volatiles

Lot-Sample #...: A3B200235-012 **Work Order #...:** FHX4V1AA **Matrix.....:** WQ
Date Sampled...: 02/18/03 08:00 **Date Received..:** 02/20/03
Prep Date.....: 02/24/03 **Analysis Date..:** 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-2

GC/MS Volatiles

Lot-Sample #...: A3B200235-012 Work Order #...: FHX4V1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B200235 **Work Order #...:** FH6PT1AA **Matrix.....:** WATER
MB Lot-Sample #: A3B250000-362

Prep Date.....: 02/24/03
Analysis Date..: 02/24/03 **Prep Batch #...:** 3056362
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B200235 **Work Order #...:** FH6PT1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B200235 Work Order #...: FH6PT1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: A3B250000-362 FH6PT1AD-LCSD
Prep Date.....: 02/24/03 Analysis Date..: 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	88	(63 - 130)			SW846 8260B
	98	(63 - 130)	10	(0-20)	SW846 8260B
Trichloroethene	80	(75 - 122)			SW846 8260B
	86	(75 - 122)	6.3	(0-20)	SW846 8260B
Benzene	92	(80 - 116)			SW846 8260B
	93	(80 - 116)	1.2	(0-20)	SW846 8260B
Toluene	94	(74 - 119)			SW846 8260B
	91	(74 - 119)	2.9	(0-20)	SW846 8260B
Chlorobenzene	94	(76 - 117)			SW846 8260B
	93	(76 - 117)	1.1	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
	94	(61 - 128)
Toluene-d8	97	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	101	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B200235 Work Order #...: FHX4M1AC-MS Matrix.....: WG
MS Lot-Sample #: A3B200235-007 FHX4M1AD-MSD
Date Sampled...: 02/18/03 11:05 Date Received..: 02/20/03
Prep Date.....: 02/24/03 Analysis Date..: 02/24/03
Prep Batch #...: 3056362
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	100	(62 - 130)			SW846 8260B
	95	(62 - 130)	5.0	(0-20)	SW846 8260B
Trichloroethene	83	(62 - 130)			SW846 8260B
	88	(62 - 130)	5.3	(0-20)	SW846 8260B
Benzene	93	(78 - 118)			SW846 8260B
	96	(78 - 118)	4.1	(0-20)	SW846 8260B
Toluene	99	(70 - 119)			SW846 8260B
	98	(70 - 119)	0.45	(0-20)	SW846 8260B
Chlorobenzene	97	(76 - 117)			SW846 8260B
	97	(76 - 117)	0.04	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
	94	(61 - 128)
Toluene-d8	97	(76 - 110)
	96	(76 - 110)
4-Bromofluorobenzene	102	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

36

STL-4124 (0901)

Client: MACTEC	Project Manager: Rhonda Quinn	Date: 2/19/03	Chain of Custody Number: 134085
Address: 3200 Townpoint Dr.	Telephone Number (Area Code)/Fax Number: 770-421-3400	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Erica Summers	Lab Contact:	
Project Name and Location (State): TK-Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 12000-0-2050			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	Special Instructions/ Conditions of Receipt
MW-1	2-14-03	1225		✓					3				✓	
MW-2	2-14-03	1145		✓					3				✓	
EQB-1	2-14-03	1357		✓					3				✓	
EQB-2	2-14-03	1450		✓					3				✓	
TB-21403	2-14-03	0800		✓					1				✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

1. Relinquished By: Erica Summers	Date: 2/14/03	Time: 1530	1. Received By: Anne Sandus	Date: 2/20/03	Time: 935
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report: CANARY - Stays with the Sample: PINK - Field Copy

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

37

STL-4124 (0901)

Client: MACTEC Engineering & Consulting	Project Manager: Rhonda Quinn	Date: 2/18/03	Chain of Custody Number: 164038
Address: 3200 Townpoint Dr., Suite 100	Telephone Number (Area Code)/Fax Number: 770-421-3400	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Erica Summers	Lab Contact:	
Project Name and Location (State): TK – Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 12000-0-2050			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: SW 8260B	Special Instructions/ Conditions of Receipt
MW-3	2-18-03	1730		✓						3			✓	
MW-6 MS/MSD	2-18-03	1105		✓						9			✓	
TB-1	2-18-03	0800		✓						1			✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Erica Summers	2/19/03	1530	1. Received By: Anne Sandeno	2/20/03	735
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

[redacted]

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

38

STL 4124 (0901)

Client: MACTEC	Project Manager: Rhonda Quinn	Date: 2-18-03	Chain of Custody Number: 164034
Address: 3900 Townpoint Dr.	Telephone Number (Area Code) Fax Number: 770-421-3400	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Erica Summers	Lab Contact:	
Project Name and Location (State): TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 12000-0-2050			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8240 B	Special Instructions/ Conditions of Receipt
MW-4	2-18-03	1750		✓					3				✓	
MW-5	2-18-03	1205		✓					3				✓	
MW-300	2-18-03	1200		✓					3				✓	
TB-2	2-18-03	0800		✓					3				✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: Erica Summers	Date: 2/19/03	Time: 1530	1. Received By: [signature]	Date: 2/20/03	Time: 935
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3B260186

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FH775	001	MW-8	02/24/03	17:15
FH78D	002	MW-9	02/24/03	16:40
FH78H	003	MW-11	02/25/03	12:45
FH78K	004	MW-12	02/25/03	12:40
FH78L	005	TB-22403	02/25/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK-LOUISVILLE

Lot #: A3B260186

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

March 12, 2003

CASE NARRATIVE

A3B260186

The following report contains the analytical results for five water samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK - Louisville site, project number 12000-0-2050. The samples were received on February 26, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on March 7, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.6° C.

See STL's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3B260186

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

ANALYTICAL METHODS SUMMARY

A3B260186

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-8

GC/MS Volatiles

Lot-Sample #...: A3B260186-001 Work Order #...: FH7751AA Matrix.....: WG
Date Sampled...: 02/24/03 17:15 Date Received..: 02/26/03
Prep Date.....: 03/03/03 Analysis Date..: 03/03/03
Prep Batch #...: 3063382
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-8

GC/MS Volatiles

Lot-Sample #...: A3B260186-001 Work Order #...: FH7751AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-9

GC/MS Volatiles

Lot-Sample #...: A3B260186-002 Work Order #...: FH78D1AA Matrix.....: WG
Date Sampled...: 02/24/03 16:40 Date Received..: 02/26/03
Prep Date.....: 03/03/03 Analysis Date..: 03/03/03
Prep Batch #...: 3063382
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-9

GC/MS Volatiles

Lot-Sample #...: A3B260186-002 **Work Order #...:** FH78D1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-11

GC/MS Volatiles

Lot-Sample #...: A3B260186-003 **Work Order #...:** FH78H1AA **Matrix.....:** WG
Date Sampled...: 02/25/03 12:45 **Date Received..:** 02/26/03
Prep Date.....: 03/03/03 **Analysis Date..:** 03/03/03
Prep Batch #...: 3063382
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-11

GC/MS Volatiles

Lot-Sample #...: A3B260186-003 Work Order #...: FH78H1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-12

GC/MS Volatiles

Lot-Sample #...: A3B260186-004 **Work Order #...:** FH78K1AA **Matrix.....:** WG
Date Sampled...: 02/25/03 12:40 **Date Received..:** 02/26/03
Prep Date.....: 03/03/03 **Analysis Date..:** 03/03/03
Prep Batch #...: 3063382
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-12

GC/MS Volatiles

Lot-Sample #...: A3B260186-004 Work Order #...: FH78K1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-22403

GC/MS Volatiles

Lot-Sample #...: A3B260186-005 Work Order #...: FH78L1AA Matrix.....: WQ
Date Sampled...: 02/25/03 Date Received..: 02/26/03
Prep Date.....: 03/03/03 Analysis Date..: 03/03/03
Prep Batch #...: 3063382
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-22403

GC/MS Volatiles

Lot-Sample #...: A3B260186-005 Work Order #...: FH78L1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B260186 **Work Order #...:** FJJ671AA **Matrix.....:** WATER
MB Lot-Sample #: A3C040000-382

Prep Date.....: 03/03/03
Analysis Date..: 03/03/03 **Prep Batch #...:** 3063382
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichloroethene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B260186 **Work Order #...:** FJJ671AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B260186 Work Order #...: FJJ671AC Matrix.....: WATER
LCS Lot-Sample#: A3C040000-382
Prep Date.....: 03/03/03 Analysis Date..: 03/03/03
Prep Batch #...: 3063382
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**94**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**87**	**(75 - 122)**	**SW846 8260B**
Benzene	**94**	**(80 - 116)**	**SW846 8260B**
Toluene	**93**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	103	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B260186 **Work Order #...:** FH7G01F7-MS **Matrix.....:** WATER
MS Lot-Sample #: A3B260106-001 FH7G01F8-MSD
Date Sampled...: 02/25/03 15:50 **Date Received..:** 02/26/03
Prep Date.....: 03/03/03 **Analysis Date..:** 03/03/03
Prep Batch #...: 3063382
Dilution Factor: 200

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**93**	**(62 - 130)**			**SW846 8260B**
	107	**(62 - 130)**	**14**	**(0-20)**	**SW846 8260B**
Trichloroethene	**84**	**(62 - 130)**			**SW846 8260B**
	89	**(62 - 130)**	**4.8**	**(0-20)**	**SW846 8260B**
Benzene	**91**	**(78 - 118)**			**SW846 8260B**
	95	**(78 - 118)**	**3.7**	**(0-20)**	**SW846 8260B**
Toluene	**87**	**(70 - 119)**			**SW846 8260B**
	95	**(70 - 119)**	**8.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**93**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**4.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	91	(61 - 128)
Toluene-d8	94	(76 - 110)
	91	(76 - 110)
4-Bromofluorobenzene	104	(74 - 116)
	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (1200)

Client	Project Manager	Date	Chain of Custody Number
MACTEC Engineering + Consulting	Rhonda Quinn	2-25-03	072298
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
3200 Townpoint Dr., Suite 100	770-421-3516		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Erica Summers		
Project Name and Location (State)	**Carrier/Waybill Number**		
TK - Louisville	FedEx		
Contract/Purchase Order/Quote No.			
12000-0-2050			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: SW 8260B	Special Instructions/ Conditions of Receipt
MW-8	2-24-03	1715		✓						3			✓	
MW-9	2-24-03	1640		✓						3			✓	
MW-11	2-25-03	1245		✓						3			✓	
MW-12	2-25-03	1240		✓						3			✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Erica Summers	2/25/03	1530	1. Received By: [illegible]	2-26-03	10:20
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

SAMPLE SUMMARY

A3B270170

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FJACA	001	MW-10	02/25/03	18:00
FJACC	002	MW-7	02/25/03	18:10
FJACD	003	MW-13	02/26/03	11:00
FJACG	004	TB-22503	02/25/03	09:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK-LOUISVILLE

Lot #: A3B270170

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

March 12, 2003

CASE NARRATIVE

A3B270170

The following report contains the analytical results for four water samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK - Louisville site, project number 12000-0-2050. The samples were received on February 27, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on March 6, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.1° C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

ACCREDITED IN ACCORDANCE WITH nelac

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3B270170

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

ANALYTICAL METHODS SUMMARY

A3B270170

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10

GC/MS Volatiles

Lot-Sample #...: A3B270170-001 **Work Order #...:** FJACA1AA **Matrix.....:** WG
Date Sampled...: 02/25/03 18:00 **Date Received..:** 02/27/03
Prep Date.....: 03/04/03 **Analysis Date..:** 03/04/03
Prep Batch #...: 3064381
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10

GC/MS Volatiles

Lot-Sample #...: A3B270170-001 Work Order #...: FJACA1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-7

GC/MS Volatiles

Lot-Sample #...: A3B270170-002 **Work Order #...:** FJACC1AA **Matrix.....:** WG
Date Sampled...: 02/25/03 18:10 **Date Received..:** 02/27/03
Prep Date.....: 03/04/03 **Analysis Date..:** 03/04/03
Prep Batch #...: 3064381
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-7

GC/MS Volatiles

Lot-Sample #...: A3B270170-002 **Work Order #...:** FJACC1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	82	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-13

GC/MS Volatiles

Lot-Sample #...: A3B270170-003 **Work Order #...:** FJACD1AA **Matrix.....:** WG
Date Sampled...: 02/26/03 11:00 **Date Received..:** 02/27/03
Prep Date.....: 03/04/03 **Analysis Date..:** 03/04/03
Prep Batch #...: 3064381
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-13

GC/MS Volatiles

Lot-Sample #...: A3B270170-003 **Work Order #...:** FJACD1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	79	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-22503

GC/MS Volatiles

Lot-Sample #...: A3B270170-004 **Work Order #...:** FJACG1AA **Matrix.....:** WQ
Date Sampled...: 02/25/03 09:00 **Date Received..:** 02/27/03
Prep Date.....: 03/04/03 **Analysis Date..:** 03/04/03
Prep Batch #...: 3064381
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-22503

GC/MS Volatiles

Lot-Sample #...: A3B270170-004 Work Order #...: FJACG1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	79	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B270170 **Work Order #...:** FJL321AA **Matrix.....:** WATER
MB Lot-Sample #: A3C050000-381

Prep Date.....: 03/04/03
Analysis Date..: 03/04/03 **Prep Batch #...:** 3064381
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3B270170 **Work Order #...:** FJL321AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichloroethene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(73 - 122)
1,2-Dichloroethane-d4	76	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B270170 **Work Order #...:** FJL321AC **Matrix.....:** WATER
LCS Lot-Sample#: A3C050000-381
Prep Date.....: 03/04/03 **Analysis Date..:** 03/04/03
Prep Batch #...: 3064381
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**96**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**85**	**(75 - 122)**	**SW846 8260B**
Benzene	**99**	**(80 - 116)**	**SW846 8260B**
Toluene	**101**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**99**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(73 - 122)
1,2-Dichloroethane-d4	79	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3B270170 **Work Order #...:** FH6J61AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A3B250228-012 FH6J61AD-MSD
Date Sampled...: 02/24/03 11:20 **Date Received..:** 02/25/03
Prep Date.....: 03/04/03 **Analysis Date..:** 03/04/03
Prep Batch #...: 3064381
Dilution Factor: 250

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	99	**(62 - 130)**	**1.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**85**	**(62 - 130)**			**SW846 8260B**
	88	**(62 - 130)**	**3.0**	**(0-20)**	**SW846 8260B**
Benzene	**102**	**(78 - 118)**			**SW846 8260B**
	102	**(78 - 118)**	**0.15**	**(0-20)**	**SW846 8260B**
Toluene	**103**	**(70 - 119)**			**SW846 8260B**
	103	**(70 - 119)**	**0.03**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	99	**(76 - 117)**	**0.61**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(73 - 122)
	80	(73 - 122)
1,2-Dichloroethane-d4	80	(61 - 128)
	79	(61 - 128)
Toluene-d8	82	(76 - 110)
	83	(76 - 110)
4-Bromofluorobenzene	78	(74 - 116)
	78	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

20

STL-4124 (0901)

Client: MACTEC Engineering & Consulting	Project Manager: Rhonda Quinn	Date: 2/26/03	Chain of Custody Number: 154087
Address: 3200 Townpoint Dr. Suite 100	Telephone Number (Area Code)/Fax Number: 770-421-3400	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Erica Summers	Lab Contact:	
Project Name and Location (State): TK-Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 12000-0-2050			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	Special Instructions/ Conditions of Receipt
MW-10	2-25-03	1800		✓						✓			3	
MW-7	2-25-03	1810		✓						✓			3	
MW-13	2-26-03	1100		✓						✓			3	
TB-22503	2-25-03	0900		✓						✓			1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Erica Summers	2/26/03	12:30	1. Received By: [signature]	2/27/03	1005
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3D050147

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FLE0Q	001	MW-15	04/03/03	13:16
FLE0T	002	MW-14	04/03/03	17:10
FLE01	003	MW-400	04/03/03	12:00
FLE03	004	MW-16	04/04/03	12:05
FLE06	005	EQB-1	04/04/03	12:10
FLE09	006	TB-1	04/03/03	12:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK LOUISVILLE

Lot #: A3D050147

Rhonda Quinn

Law Environmental Inc
3200 Town Point Drive
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

April 15, 2003

Severn Trent Laboratories, Inc.
STL North Canton • 4101 Shuffel Drive NW, North Canton, OH 44720
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A part of Severn Trent plc

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048),
Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001),
New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024),
Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003),
Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY,
USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3D050147

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-14 04/03/03 17:10 002				
cis-1,2-Dichloroethene	230	50	ug/L	SW846 8260B
Trichloroethene	3000	100	ug/L	SW846 8260B
MW-400 04/03/03 12:00 003				
cis-1,2-Dichloroethene	240	50	ug/L	SW846 8260B
Trichloroethene	2900	100	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3D050147

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-15

GC/MS Volatiles

Lot-Sample #...: A3D050147-001 Work Order #...: FLE0Q1AA Matrix.....: WG
Date Sampled...: 04/03/03 13:16 Date Received..: 04/05/03
Prep Date.....: 04/09/03 Analysis Date..: 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichlorobenzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-15

GC/MS Volatiles

Lot-Sample #...: A3D050147-001 Work Order #...: FLE0Q1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(78 - 115)
1,2-Dichloroethane-d4	87	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	92	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14

GC/MS Volatiles

Lot-Sample #...: A3D050147-002 Work Order #...: FLE0T1AA Matrix.....: WG
Date Sampled...: 04/03/03 17:10 Date Received..: 04/05/03
Prep Date.....: 04/09/03 Analysis Date..: 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 20 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	100	ug/L
Bromodichloromethane	ND	100	ug/L
Bromoform	ND	100	ug/L
Bromomethane	ND	100	ug/L
Carbon tetrachloride	ND	100	ug/L
Xylenes (total)	ND	100	ug/L
Chlorobenzene	ND	100	ug/L
Chlorodibromomethane	ND	100	ug/L
Chloroethane	ND	100	ug/L
Chloroform	ND	100	ug/L
Chloromethane	ND	100	ug/L
Dibromomethane	ND	100	ug/L
1,2-Dichlorobenzene	ND	100	ug/L
1,3-Dichlorobenzene	ND	100	ug/L
1,4-Dichlorobenzene	ND	100	ug/L
Dichlorodifluoromethane	ND	100	ug/L
1,1-Dichloroethane	ND	100	ug/L
1,2-Dichloroethane	ND	100	ug/L
cis-1,2-Dichloroethene	**230**	**50**	**ug/L**
trans-1,2-Dichloroethene	ND	50	ug/L
1,1-Dichloroethene	ND	100	ug/L
1,2-Dichloropropane	ND	100	ug/L
1,3-Dichloropropane	ND	100	ug/L
2,2-Dichloropropane	ND	100	ug/L
1,1-Dichloropropene	ND	100	ug/L
1,4-Dioxane	ND	5000	ug/L
Ethylbenzene	ND	100	ug/L
Hexachlorobutadiene	ND	100	ug/L
Isopropylbenzene	ND	100	ug/L
Methylene chloride	ND	100	ug/L
Naphthalene	ND	100	ug/L
Styrene	ND	100	ug/L
1,1,1,2-Tetrachloroethane	ND	100	ug/L
1,1,2,2-Tetrachloroethane	ND	100	ug/L
Tetrachloroethene	ND	100	ug/L
Toluene	ND	100	ug/L
1,2,4-Trichloro-benzene	ND	100	ug/L
1,1,1-Trichloroethane	ND	100	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14

GC/MS Volatiles

Lot-Sample #...: A3D050147-002 Work Order #...: FLE0T1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	100	ug/L
Trichloroethene	**3000**	**100**	**ug/L**
Trichlorofluoromethane	ND	100	ug/L
1,2,3-Trichloropropane	ND	100	ug/L
Vinyl chloride	ND	40	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(78 - 115)
1,2-Dichloroethane-d4	86	(77 - 120)
Toluene-d8	94	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-400

GC/MS Volatiles

Lot-Sample #...: A3D050147-003 Work Order #...: FLE011AA Matrix.....: WG
Date Sampled...: 04/03/03 12:00 Date Received..: 04/05/03
Prep Date.....: 04/09/03 Analysis Date..: 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 20 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	100	ug/L
Bromodichloromethane	ND	100	ug/L
Bromoform	ND	100	ug/L
Bromomethane	ND	100	ug/L
Carbon tetrachloride	ND	100	ug/L
Xylenes (total)	ND	100	ug/L
Chlorobenzene	ND	100	ug/L
Chlorodibromomethane	ND	100	ug/L
Chloroethane	ND	100	ug/L
Chloroform	ND	100	ug/L
Chloromethane	ND	100	ug/L
Dibromomethane	ND	100	ug/L
1,2-Dichlorobenzene	ND	100	ug/L
1,3-Dichlorobenzene	ND	100	ug/L
1,4-Dichlorobenzene	ND	100	ug/L
Dichlorodifluoromethane	ND	100	ug/L
1,1-Dichloroethane	ND	100	ug/L
1,2-Dichloroethane	ND	100	ug/L
cis-1,2-Dichloroethene	**240**	**50**	**ug/L**
trans-1,2-Dichloroethene	ND	50	ug/L
1,1-Dichloroethene	ND	100	ug/L
1,2-Dichloropropane	ND	100	ug/L
1,3-Dichloropropane	ND	100	ug/L
2,2-Dichloropropane	ND	100	ug/L
1,1-Dichloropropene	ND	100	ug/L
1,4-Dioxane	ND	5000	ug/L
Ethylbenzene	ND	100	ug/L
Hexachlorobutadiene	ND	100	ug/L
Isopropylbenzene	ND	100	ug/L
Methylene chloride	ND	100	ug/L
Naphthalene	ND	100	ug/L
Styrene	ND	100	ug/L
1,1,1,2-Tetrachloroethane	ND	100	ug/L
1,1,2,2-Tetrachloroethane	ND	100	ug/L
Tetrachloroethene	ND	100	ug/L
Toluene	ND	100	ug/L
1,2,4-Trichloro-benzene	ND	100	ug/L
1,1,1-Trichloroethane	ND	100	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-400

GC/MS Volatiles

Lot-Sample #...: A3D050147-003 Work Order #...: FLE011AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	100	ug/L
Trichloroethene	**2900**	**100**	**ug/L**
Trichlorofluoromethane	ND	100	ug/L
1,2,3-Trichloropropane	ND	100	ug/L
Vinyl chloride	ND	40	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(78 - 115)
1,2-Dichloroethane-d4	84	(77 - 120)
Toluene-d8	93	(78 - 111)
4-Bromofluorobenzene	88	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-16

GC/MS Volatiles

Lot-Sample #...: A3D050147-004 Work Order #...: FLE031AA Matrix.....: WG
Date Sampled...: 04/04/03 12:05 Date Received..: 04/05/03
Prep Date.....: 04/09/03 Analysis Date..: 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-16

GC/MS Volatiles

Lot-Sample #...: A3D050147-004 Work Order #...: FLE031AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(78 - 115)
1,2-Dichloroethane-d4	87	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: EQB-1

GC/MS Volatiles

Lot-Sample #...: A3D050147-005 Work Order #...: FLE061AA Matrix.....: WQ
Date Sampled...: 04/04/03 12:10 Date Received..: 04/05/03
Prep Date.....: 04/09/03 Analysis Date..: 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: EQB-1

GC/MS Volatiles

Lot-Sample #...: A3D050147-005 **Work Order #...:** FLE061AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(78 - 115)
1,2-Dichloroethane-d4	86	(77 - 120)
Toluene-d8	94	(78 - 111)
4-Bromofluorobenzene	88	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-1

GC/MS Volatiles

Lot-Sample #...: A3D050147-006 Work Order #...: FLE091AA Matrix.....: WQ
Date Sampled...: 04/03/03 12:00 Date Received..: 04/05/03
Prep Date.....: 04/09/03 Analysis Date..: 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TB-1

GC/MS Volatiles

Lot-Sample #...: A3D050147-006 Work Order #...: FLE091AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(78 - 115)
1,2-Dichloroethane-d4	88	(77 - 120)
Toluene-d8	96	(78 - 111)
4-Bromofluorobenzene	88	(80 - 114)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3D050147 Work Order #...: FLPP01AA Matrix.....: WATER
MB Lot-Sample #: A3D100000-592

Prep Date.....: 04/09/03
Analysis Date..: 04/09/03 Prep Batch #...: 3100592
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromochloromethane	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3D050147 **Work Order #...:** FLPP01AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(78 - 115)
1,2-Dichloroethane-d4	78	(77 - 120)
Toluene-d8	83	(78 - 111)
4-Bromofluorobenzene	82	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3D050147 **Work Order #...:** FLPP01AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3D100000-592 FLPP01AD-LCSD
Prep Date.....: 04/09/03 **Analysis Date..:** 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**94**	**(79 - 116)**			**SW846 8260B**
	96	**(79 - 116)**	**2.9**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(81 - 115)**			**SW846 8260B**
	93	**(81 - 115)**	**1.3**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**97**	**(65 - 119)**			**SW846 8260B**
	97	**(65 - 119)**	**0.39**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(76 - 119)**			**SW846 8260B**
	97	**(76 - 119)**	**0.56**	**(0-20)**	**SW846 8260B**
Trichloroethene	**88**	**(80 - 122)**			**SW846 8260B**
	89	**(80 - 122)**	**0.31**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(78 - 115)
	85	(78 - 115)
1,2-Dichloroethane-d4	78	(77 - 120)
	79	(77 - 120)
Toluene-d8	88	(78 - 111)
	89	(78 - 111)
4-Bromofluorobenzene	87	(80 - 114)
	86	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A3D050147 **Work Order #...:** FLPP01AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3D100000-592 FLPP01AD-LCSD
Prep Date.....: 04/09/03 **Analysis Date..:** 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 1 **Final Wgt/Vol..:** 5 mL
Initial Wgt/Vol: 5 mL

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**50**	**47**	**ug/L**	**94**		**SW846 8260B**
	50	**48**	**ug/L**	**96**	**2.9**	**SW846 8260B**
Chlorobenzene	**50**	**47**	**ug/L**	**95**		**SW846 8260B**
	50	**47**	**ug/L**	**93**	**1.3**	**SW846 8260B**
1,1-Dichloroethene	**50**	**49**	**ug/L**	**97**		**SW846 8260B**
	50	**48**	**ug/L**	**97**	**0.39**	**SW846 8260B**
Toluene	**50**	**48**	**ug/L**	**96**		**SW846 8260B**
	50	**48**	**ug/L**	**97**	**0.56**	**SW846 8260B**
Trichloroethene	**50**	**44**	**ug/L**	**88**		**SW846 8260B**
	50	**44**	**ug/L**	**89**	**0.31**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(78 - 115)
	85	(78 - 115)
1,2-Dichloroethane-d4	78	(77 - 120)
	79	(77 - 120)
Toluene-d8	88	(78 - 111)
	89	(78 - 111)
4-Bromofluorobenzene	87	(80 - 114)
	86	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3D050147 **Work Order #...:** FLE0Q1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A3D050147-001 FLE0Q1AD-MSD
Date Sampled...: 04/03/03 13:16 **Date Received..:** 04/05/03
Prep Date.....: 04/09/03 **Analysis Date..:** 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**102**	**(73 - 123)**			**SW846 8260B**
	99	**(73 - 123)**	**2.6**	**(0-11)**	**SW846 8260B**
Chlorobenzene	**94**	**(70 - 122)**			**SW846 8260B**
	90	**(70 - 122)**	**4.3**	**(0-14)**	**SW846 8260B**
1,1-Dichloroethene	**96**	**(57 - 138)**			**SW846 8260B**
	95	**(57 - 138)**	**1.3**	**(0-15)**	**SW846 8260B**
Toluene	**98**	**(67 - 129)**			**SW846 8260B**
	93	**(67 - 129)**	**4.7**	**(0-14)**	**SW846 8260B**
Trichloroethene	**85**	**(58 - 141)**			**SW846 8260B**
	81	**(58 - 141)**	**5.0**	**(0-17)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(78 - 115)
	95	(78 - 115)
1,2-Dichloroethane-d4	88	(77 - 120)
	85	(77 - 120)
Toluene-d8	95	(78 - 111)
	95	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)
	89	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A3D050147 **Work Order #...:** FLE0Q1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A3D050147-001 FLE0Q1AD-MSD
Date Sampled...: 04/03/03 13:16 **Date Received..:** 04/05/03
Prep Date.....: 04/09/03 **Analysis Date..:** 04/09/03
Prep Batch #...: 3100592
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**50**	**51**	**ug/L**	**102**		**SW846 8260B**
	ND	**50**	**50**	**ug/L**	**99**	**2.6**	**SW846 8260B**
Chlorobenzene	**ND**	**50**	**47**	**ug/L**	**94**		**SW846 8260B**
	ND	**50**	**45**	**ug/L**	**90**	**4.3**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**50**	**48**	**ug/L**	**96**		**SW846 8260B**
	ND	**50**	**47**	**ug/L**	**95**	**1.3**	**SW846 8260B**
Toluene	**ND**	**50**	**49**	**ug/L**	**98**		**SW846 8260B**
	ND	**50**	**47**	**ug/L**	**93**	**4.7**	**SW846 8260B**
Trichloroethene	**ND**	**50**	**43**	**ug/L**	**85**		**SW846 8260B**
	ND	**50**	**41**	**ug/L**	**81**	**5.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(78 - 115)
	95	(78 - 115)
1,2-Dichloroethane-d4	88	(77 - 120)
	85	(77 - 120)
Toluene-d8	95	(78 - 111)
	95	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)
	89	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MACTEC	Rhonda Quinn	4-3-03	164086
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Townpoint Dr.	770-421-3400		
City / State / Zip Code	**Site Contact / Lab Contact**		
Kennesaw / GA / 30144	Erica Summers		
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville			
Contract/Purchase Order/Quote No.			
12000-0-2050			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	Special Instructions/ Conditions of Receipt
MW-15	4-3-03	1316		✓					3				✓	
MW-14	4-3-03	1710		✓					3				✓	
MW-400	4-3-03	1200		✓					3				✓	
MW-16	4-4-03	1205		✓					3				✓	
EQB-1	4-4-03	1210		✓					3				✓	
TB-1	4-3-03	1200		✓					2				✓	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	Erica Summers	4/4/03	12:30	Anne Sandlin	4-5-03	940
2.		Date	Time		Date	Time
3.		Date	Time		Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3D220129

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FMC0T	001	MW-14 PRE	04/21/03	11:30
FMC0V	002	MW-14 POST	04/21/03	12:50
FMC0W	003	MW-14 LONG	04/21/03	17:30
FMC0X	004	TRIP BLANK	04/21/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050.111

TK LOUISVILLE GEORGIA

Lot #: A3D220129

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

April 29, 2003

Severn Trent Laboratories, Inc.
STL North Canton • 4101 Shuffel Drive NW, North Canton, OH 44720
Tel 330 497 9396 Fax 330 497 0772 • *www.stl-inc.com*

A part of Severn Trent plc

CASE NARRATIVE

A3D220129

The following report contains the analytical results for three water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK Louisville Georgia site, project number 12000-0-2050.111. The samples were received on April 22, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on April 22, 23 and 28, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.6° C.

See STL's Cooler Receipt Form for additional information.

GC/MS VOLATILES

Result concentration exceeds the calibration range. Refer to the sample report pages for the affected compound(s) flagged with "E".

Samples MW-14 PRE, MW-14 POST and MW-14 LONG had high analyte concentrations that exceeded the calibration range. The samples were reanalyzed and both sets of data are reported.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

ACCREDITED IN ACCORDANCE WITH nelac

STL North Canton Certifications and Approvals:
Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3D220129

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-14 PRE 04/21/03 11:30 001				
cis-1,2-Dichloroethene	170	31	ug/L	SW846 8260B
Trichloroethene	2200	62	ug/L	SW846 8260B
cis-1,2-Dichloroethene	180	3.1	ug/L	SW846 8260B
Trichloroethene	2500 E	6.2	ug/L	SW846 8260B
MW-14 POST 04/21/03 12:50 002				
cis-1,2-Dichloroethene	350	12	ug/L	SW846 8260B
Trichloroethene	7000 E	25	ug/L	SW846 8260B
cis-1,2-Dichloroethene	360	120	ug/L	SW846 8260B
Trichloroethene	6300	250	ug/L	SW846 8260B
MW-14 LONG 04/21/03 17:30 003				
Trichloroethene	8300 E	25	ug/L	SW846 8260B
cis-1,2-Dichloroethene	440	12	ug/L	SW846 8260B
Trichloroethene	8200	250	ug/L	SW846 8260B
cis-1,2-Dichloroethene	460	120	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3D220129

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 PRE

GC/MS Volatiles

Lot-Sample #...: A3D220129-001 Work Order #...: FMC0T1AA Matrix.....: WG
Date Sampled...: 04/21/03 11:30 Date Received..: 04/22/03
Prep Date.....: 04/22/03 Analysis Date..: 04/22/03
Prep Batch #...: 3113224
Dilution Factor: 12.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	62	ug/L
Bromoform	ND	62	ug/L
Bromomethane	ND	62	ug/L
Carbon tetrachloride	ND	62	ug/L
Chlorobenzene	ND	62	ug/L
Chlorodibromomethane	ND	62	ug/L
Chloroethane	ND	62	ug/L
Chloroform	ND	62	ug/L
Chloromethane	ND	62	ug/L
Dibromomethane	ND	62	ug/L
1,2-Dichlorobenzene	ND	62	ug/L
1,3-Dichlorobenzene	ND	62	ug/L
1,4-Dichlorobenzene	ND	62	ug/L
Dichlorodifluoromethane	ND	62	ug/L
1,1-Dichloroethane	ND	62	ug/L
1,2-Dichloroethane	ND	62	ug/L
cis-1,2-Dichloroethene	**170**	**31**	**ug/L**
trans-1,2-Dichloroethene	ND	31	ug/L
1,1-Dichloroethene	ND	62	ug/L
1,2-Dichloropropane	ND	62	ug/L
1,3-Dichloropropane	ND	62	ug/L
2,2-Dichloropropane	ND	62	ug/L
1,1-Dichloropropene	ND	62	ug/L
1,4-Dioxane	ND	2500	ug/L
Ethylbenzene	ND	62	ug/L
Hexachlorobutadiene	ND	62	ug/L
Isopropylbenzene	ND	62	ug/L
Methylene chloride	ND	62	ug/L
Naphthalene	ND	62	ug/L
Styrene	ND	62	ug/L
1,1,1,2-Tetrachloroethane	ND	62	ug/L
1,1,2,2-Tetrachloroethane	ND	62	ug/L
Tetrachloroethene	ND	62	ug/L
Toluene	ND	62	ug/L
1,2,4-Trichloro-benzene	ND	62	ug/L
1,1,1-Trichloroethane	ND	62	ug/L
1,1,2-Trichloroethane	ND	62	ug/L
Trichloroethene	**2200**	**62**	**ug/L**

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 PRE

GC/MS Volatiles

Lot-Sample #...: A3D220129-001 Work Order #...: FMC0T1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	62	ug/L
1,2,3-Trichloropropane	ND	62	ug/L
Vinyl chloride	ND	62	ug/L
Xylenes (total)	ND	62	ug/L
Bromodichloromethane	ND	62	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(78 - 115)
1,2-Dichloroethane-d4	103	(77 - 120)
Toluene-d8	106	(78 - 111)
4-Bromofluorobenzene	88	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 PRE

GC/MS Volatiles

Lot-Sample #...: A3D220129-001 Work Order #...: FMC0T2AA Matrix.....: WG
Date Sampled...: 04/21/03 11:30 Date Received..: 04/22/03
Prep Date.....: 04/23/03 Analysis Date..: 04/23/03
Prep Batch #...: 3113238
Dilution Factor: 1.25 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	6.2	ug/L
Bromoform	ND	6.2	ug/L
Bromomethane	ND	6.2	ug/L
Carbon tetrachloride	ND	6.2	ug/L
Chlorobenzene	ND	6.2	ug/L
Chlorodibromomethane	ND	6.2	ug/L
Chloroethane	ND	6.2	ug/L
Chloroform	ND	6.2	ug/L
Chloromethane	ND	6.2	ug/L
Dibromomethane	ND	6.2	ug/L
1,2-Dichlorobenzene	ND	6.2	ug/L
1,3-Dichlorobenzene	ND	6.2	ug/L
1,4-Dichlorobenzene	ND	6.2	ug/L
Dichlorodifluoromethane	ND	6.2	ug/L
1,1-Dichloroethane	ND	6.2	ug/L
1,2-Dichloroethane	ND	6.2	ug/L
cis-1,2-Dichloroethene	**180**	**3.1**	**ug/L**
trans-1,2-Dichloroethene	ND	3.1	ug/L
1,1-Dichloroethene	ND	6.2	ug/L
1,2-Dichloropropane	ND	6.2	ug/L
1,3-Dichloropropane	ND	6.2	ug/L
2,2-Dichloropropane	ND	6.2	ug/L
1,1-Dichloropropene	ND	6.2	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	6.2	ug/L
Hexachlorobutadiene	ND	6.2	ug/L
Isopropylbenzene	ND	6.2	ug/L
Methylene chloride	ND	6.2	ug/L
Naphthalene	ND	6.2	ug/L
Styrene	ND	6.2	ug/L
1,1,1,2-Tetrachloroethane	ND	6.2	ug/L
1,1,2,2-Tetrachloroethane	ND	6.2	ug/L
Tetrachloroethene	ND	6.2	ug/L
Toluene	ND	6.2	ug/L
1,2,4-Trichloro-benzene	ND	6.2	ug/L
1,1,1-Trichloroethane	ND	6.2	ug/L
1,1,2-Trichloroethane	ND	6.2	ug/L
Trichloroethene	**2500 E**	**6.2**	**ug/L**

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 PRE

GC/MS Volatiles

Lot-Sample #...: A3D220129-001 Work Order #...: FMC0T2AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	6.2	ug/L
1,2,3-Trichloropropane	ND	6.2	ug/L
Vinyl chloride	ND	6.2	ug/L
Xylenes (total)	ND	6.2	ug/L
Bromodichloromethane	ND	6.2	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(78 - 115)
1,2-Dichloroethane-d4	100	(77 - 120)
Toluene-d8	105	(78 - 111)
4-Bromofluorobenzene	87	(80 - 114)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 POST

GC/MS Volatiles

Lot-Sample #...: A3D220129-002 Work Order #...: FMC0V1AA Matrix.....: WG
Date Sampled...: 04/21/03 12:50 Date Received..: 04/22/03
Prep Date.....: 04/23/03 Analysis Date..: 04/23/03
Prep Batch #...: 3113238
Dilution Factor: 50 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	250	ug/L
Bromoform	ND	250	ug/L
Bromomethane	ND	250	ug/L
Carbon tetrachloride	ND	250	ug/L
Chlorobenzene	ND	250	ug/L
Chlorodibromomethane	ND	250	ug/L
Chloroethane	ND	250	ug/L
Chloroform	ND	250	ug/L
Chloromethane	ND	250	ug/L
Dibromomethane	ND	250	ug/L
1,2-Dichlorobenzene	ND	250	ug/L
1,3-Dichlorobenzene	ND	250	ug/L
1,4-Dichlorobenzene	ND	250	ug/L
Dichlorodifluoromethane	ND	250	ug/L
1,1-Dichloroethane	ND	250	ug/L
1,2-Dichloroethane	ND	250	ug/L
cis-1,2-Dichloroethene	**360**	**120**	**ug/L**
trans-1,2-Dichloroethene	ND	120	ug/L
1,1-Dichloroethene	ND	250	ug/L
1,2-Dichloropropane	ND	250	ug/L
1,3-Dichloropropane	ND	250	ug/L
2,2-Dichloropropane	ND	250	ug/L
1,1-Dichloropropene	ND	250	ug/L
1,4-Dioxane	ND	10000	ug/L
Ethylbenzene	ND	250	ug/L
Hexachlorobutadiene	ND	250	ug/L
Isopropylbenzene	ND	250	ug/L
Methylene chloride	ND	250	ug/L
Naphthalene	ND	250	ug/L
Styrene	ND	250	ug/L
1,1,1,2-Tetrachloroethane	ND	250	ug/L
1,1,2,2-Tetrachloroethane	ND	250	ug/L
Tetrachloroethene	ND	250	ug/L
Toluene	ND	250	ug/L
1,2,4-Trichloro-benzene	ND	250	ug/L
1,1,1-Trichloroethane	ND	250	ug/L
1,1,2-Trichloroethane	ND	250	ug/L
Trichloroethene	**6300**	**250**	**ug/L**

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 POST

GC/MS Volatiles

Lot-Sample #...: A3D220129-002 Work Order #...: FMC0V1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	250	ug/L
1,2,3-Trichloropropane	ND	250	ug/L
Vinyl chloride	ND	250	ug/L
Xylenes (total)	ND	250	ug/L
Bromodichloromethane	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(78 - 115)
1,2-Dichloroethane-d4	103	(77 - 120)
Toluene-d8	106	(78 - 111)
4-Bromofluorobenzene	89	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 POST

GC/MS Volatiles

Lot-Sample #...: A3D220129-002 Work Order #...: FMC0V2AA Matrix.....: WG
Date Sampled...: 04/21/03 12:50 Date Received..: 04/22/03
Prep Date.....: 04/23/03 Analysis Date..: 04/23/03
Prep Batch #...: 3113238
Dilution Factor: 5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	25	ug/L
Bromoform	ND	25	ug/L
Bromomethane	ND	25	ug/L
Carbon tetrachloride	ND	25	ug/L
Chlorobenzene	ND	25	ug/L
Chlorodibromomethane	ND	25	ug/L
Chloroethane	ND	25	ug/L
Chloroform	ND	25	ug/L
Chloromethane	ND	25	ug/L
Dibromomethane	ND	25	ug/L
1,2-Dichlorobenzene	ND	25	ug/L
1,3-Dichlorobenzene	ND	25	ug/L
1,4-Dichlorobenzene	ND	25	ug/L
Dichlorodifluoromethane	ND	25	ug/L
1,1-Dichloroethane	ND	25	ug/L
1,2-Dichloroethane	ND	25	ug/L
cis-1,2-Dichloroethene	**350**	**12**	**ug/L**
trans-1,2-Dichloroethene	ND	12	ug/L
1,1-Dichloroethene	ND	25	ug/L
1,2-Dichloropropane	ND	25	ug/L
1,3-Dichloropropane	ND	25	ug/L
2,2-Dichloropropane	ND	25	ug/L
1,1-Dichloropropene	ND	25	ug/L
1,4-Dioxane	ND	1000	ug/L
Ethylbenzene	ND	25	ug/L
Hexachlorobutadiene	ND	25	ug/L
Isopropylbenzene	ND	25	ug/L
Methylene chloride	ND	25	ug/L
Naphthalene	ND	25	ug/L
Styrene	ND	25	ug/L
1,1,1,2-Tetrachloroethane	ND	25	ug/L
1,1,2,2-Tetrachloroethane	ND	25	ug/L
Tetrachloroethene	ND	25	ug/L
Toluene	ND	25	ug/L
1,2,4-Trichloro-benzene	ND	25	ug/L
1,1,1-Trichloroethane	ND	25	ug/L
1,1,2-Trichloroethane	ND	25	ug/L
Trichloroethene	**7000 E**	**25**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 POST

GC/MS Volatiles

Lot-Sample #...: A3D220129-002 **Work Order #...:** FMC0V2AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	25	ug/L
1,2,3-Trichloropropane	ND	25	ug/L
Vinyl chloride	ND	25	ug/L
Xylenes (total)	ND	25	ug/L
Bromodichloromethane	ND	25	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(78 - 115)
1,2-Dichloroethane-d4	102	(77 - 120)
Toluene-d8	109	(78 - 111)
4-Bromofluorobenzene	86	(80 - 114)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 LONG

GC/MS Volatiles

Lot-Sample #...: A3D220129-003 **Work Order #...:** FMC0W1AA **Matrix.....:** WG
Date Sampled...: 04/21/03 17:30 **Date Received..:** 04/22/03
Prep Date.....: 04/23/03 **Analysis Date..:** 04/23/03
Prep Batch #...: 3113238
Dilution Factor: 50 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	250	ug/L
Methylene chloride	ND	250	ug/L
Naphthalene	ND	250	ug/L
Styrene	ND	250	ug/L
1,1,1,2-Tetrachloroethane	ND	250	ug/L
1,1,2,2-Tetrachloroethane	ND	250	ug/L
Tetrachloroethene	ND	250	ug/L
Toluene	ND	250	ug/L
1,2,4-Trichloro-benzene	ND	250	ug/L
1,1,1-Trichloroethane	ND	250	ug/L
1,1,2-Trichloroethane	ND	250	ug/L
Trichloroethene	**8200**	**250**	**ug/L**
Trichlorofluoromethane	ND	250	ug/L
1,2,3-Trichloropropane	ND	250	ug/L
Vinyl chloride	ND	250	ug/L
Xylenes (total)	ND	250	ug/L
Bromodichloromethane	ND	250	ug/L
1,3-Dichloropropane	ND	250	ug/L
2,2-Dichloropropane	ND	250	ug/L
1,1-Dichloropropene	ND	250	ug/L
1,4-Dioxane	ND	10000	ug/L
Ethylbenzene	ND	250	ug/L
Hexachlorobutadiene	ND	250	ug/L
Isopropylbenzene	ND	250	ug/L
Benzene	ND	250	ug/L
Bromoform	ND	250	ug/L
Bromomethane	ND	250	ug/L
Carbon tetrachloride	ND	250	ug/L
Chlorobenzene	ND	250	ug/L
Chlorodibromomethane	ND	250	ug/L
Chloroethane	ND	250	ug/L
Chloroform	ND	250	ug/L
Chloromethane	ND	250	ug/L
Dibromomethane	ND	250	ug/L
1,2-Dichlorobenzene	ND	250	ug/L
1,3-Dichlorobenzene	ND	250	ug/L
1,4-Dichlorobenzene	ND	250	ug/L
Dichlorodifluoromethane	ND	250	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 LONG

GC/MS Volatiles

Lot-Sample #...: A3D220129-003 Work Order #...: FMC0W1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1-Dichloroethane	ND	250	ug/L
1,2-Dichloroethane	ND	250	ug/L
cis-1,2-Dichloroethene	**460**	**120**	**ug/L**
trans-1,2-Dichloroethene	ND	120	ug/L
1,1-Dichloroethene	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(78 - 115)
1,2-Dichloroethane-d4	101	(77 - 120)
Toluene-d8	106	(78 - 111)
4-Bromofluorobenzene	87	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 LONG

GC/MS Volatiles

Lot-Sample #...: A3D220129-003 **Work Order #...:** FMC0W2AA **Matrix.....:** WG
Date Sampled...: 04/21/03 17:30 **Date Received..:** 04/22/03
Prep Date.....: 04/23/03 **Analysis Date..:** 04/23/03
Prep Batch #...: 3113238
Dilution Factor: 5 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	25	ug/L
Methylene chloride	ND	25	ug/L
Naphthalene	ND	25	ug/L
Styrene	ND	25	ug/L
1,1,1,2-Tetrachloroethane	ND	25	ug/L
1,1,2,2-Tetrachloroethane	ND	25	ug/L
Tetrachloroethene	ND	25	ug/L
Toluene	ND	25	ug/L
1,2,4-Trichloro-benzene	ND	25	ug/L
1,1,1-Trichloroethane	ND	25	ug/L
1,1,2-Trichloroethane	ND	25	ug/L
Trichloroethene	**8300 E**	**25**	**ug/L**
Trichlorofluoromethane	ND	25	ug/L
1,2,3-Trichloropropane	ND	25	ug/L
Vinyl chloride	ND	25	ug/L
Xylenes (total)	ND	25	ug/L
Bromodichloromethane	ND	25	ug/L
1,3-Dichloropropane	ND	25	ug/L
2,2-Dichloropropane	ND	25	ug/L
1,1-Dichloropropene	ND	25	ug/L
1,4-Dioxane	ND	1000	ug/L
Ethylbenzene	ND	25	ug/L
Hexachlorobutadiene	ND	25	ug/L
Isopropylbenzene	ND	25	ug/L
Benzene	ND	25	ug/L
Bromoform	ND	25	ug/L
Bromomethane	ND	25	ug/L
Carbon tetrachloride	ND	25	ug/L
Chlorobenzene	ND	25	ug/L
Chlorodibromomethane	ND	25	ug/L
Chloroethane	ND	25	ug/L
Chloroform	ND	25	ug/L
Chloromethane	ND	25	ug/L
Dibromomethane	ND	25	ug/L
1,2-Dichlorobenzene	ND	25	ug/L
1,3-Dichlorobenzene	ND	25	ug/L
1,4-Dichlorobenzene	ND	25	ug/L
Dichlorodifluoromethane	ND	25	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 LONG

GC/MS Volatiles

Lot-Sample #...: A3D220129-003 Work Order #...: FMC0W2AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1-Dichloroethane	ND	25	ug/L
1,2-Dichloroethane	ND	25	ug/L
cis-1,2-Dichloroethene	**440**	**12**	**ug/L**
trans-1,2-Dichloroethene	ND	12	ug/L
1,1-Dichloroethene	ND	25	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(78 - 115)
1,2-Dichloroethane-d4	102	(77 - 120)
Toluene-d8	106	(78 - 111)
4-Bromofluorobenzene	88	(80 - 114)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3D220129-004 Work Order #...: FMC0X1AA Matrix.....: WQ
Date Sampled...: 04/21/03 Date Received..: 04/22/03
Prep Date.....: 04/22/03 Analysis Date..: 04/22/03
Prep Batch #...: 3113224
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3D220129-004 Work Order #...: FMC0X1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(78 - 115)
1,2-Dichloroethane-d4	101	(77 - 120)
Toluene-d8	105	(78 - 111)
4-Bromofluorobenzene	89	(80 - 114)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3D220129 **Work Order #...:** FME1W1AA **Matrix.....:** WATER
MB Lot-Sample #: A3D230000-224

Prep Date.....: 04/22/03
Analysis Date..: 04/22/03 **Prep Batch #...:** 3113224
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3D220129 Work Order #...: FME1W1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(78 - 115)
1,2-Dichloroethane-d4	100	(77 - 120)
Toluene-d8	106	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3D220129 Work Order #...: FME361AA Matrix.....: WATER
MB Lot-Sample #: A3D230000-238

Prep Date.....: 04/23/03
Analysis Date..: 04/23/03 Prep Batch #...: 3113238
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3D220129 Work Order #...: FME361AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(78 - 115)
1,2-Dichloroethane-d4	103	(77 - 120)
Toluene-d8	108	(78 - 111)
4-Bromofluorobenzene	87	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3D220129 Work Order #...: FME1W1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: A3D230000-224 FME1W1AD-LCSD
Prep Date.....: 04/22/03 Analysis Date..: 04/22/03
Prep Batch #...: 3113224
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**91**	**(65 - 119)**			**SW846 8260B**
	97	**(65 - 119)**	**6.8**	**(0-20)**	**SW846 8260B**
Trichloroethene	**86**	**(80 - 122)**			**SW846 8260B**
	87	**(80 - 122)**	**1.3**	**(0-20)**	**SW846 8260B**
Benzene	**93**	**(79 - 116)**			**SW846 8260B**
	96	**(79 - 116)**	**3.7**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(76 - 119)**			**SW846 8260B**
	99	**(76 - 119)**	**1.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(81 - 115)**			**SW846 8260B**
	97	**(81 - 115)**	**1.5**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(78 - 115)
	99	(78 - 115)
1,2-Dichloroethane-d4	104	(77 - 120)
	102	(77 - 120)
Toluene-d8	104	(78 - 111)
	103	(78 - 111)
4-Bromofluorobenzene	106	(80 - 114)
	105	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3D220129 Work Order #...: FME361AC-LCS Matrix.....: WATER
LCS Lot-Sample#: A3D230000-238 FME361AD-LCSD
Prep Date.....: 04/23/03 Analysis Date..: 04/23/03
Prep Batch #...: 3113238
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**89**	**(65 - 119)**			**SW846 8260B**
	94	**(65 - 119)**	**5.7**	**(0-20)**	**SW846 8260B**
Trichloroethene	**85**	**(80 - 122)**			**SW846 8260B**
	90	**(80 - 122)**	**6.1**	**(0-20)**	**SW846 8260B**
Benzene	**93**	**(79 - 116)**			**SW846 8260B**
	96	**(79 - 116)**	**2.9**	**(0-20)**	**SW846 8260B**
Toluene	**94**	**(76 - 119)**			**SW846 8260B**
	99	**(76 - 119)**	**5.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**94**	**(81 - 115)**			**SW846 8260B**
	98	**(81 - 115)**	**4.2**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(78 - 115)
	100	(78 - 115)
1,2-Dichloroethane-d4	106	(77 - 120)
	105	(77 - 120)
Toluene-d8	103	(78 - 111)
	103	(78 - 111)
4-Bromofluorobenzene	103	(80 - 114)
	105	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0700)

Client: MacTec Engineering	Project Manager: Rhonda Quinn	Date: 4-21-03	Chain of Custody Number: 027662
Address: 3200 Town Point Drive	Telephone Number (Area Code)/Fax Number: 770 421 3516 770 421 3486	Lab Number:	Page 1 of
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Rhonda Quinn	Lab Contact: Roger Toth	
Project Name and Location (State): TK Louisville Georgia	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 12000-0-2050:111			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNOS	HCl	NaOH	ZnAc/ NaOH	Analysis: 5 VOCs 8260	Special Instructions/ Conditions of Receipt
MW-14 Pre	4-21-03	1130		✓						3			3	See attached for VOCs + RLs
MW-14 Post	4-21-03	1250		✓						3			3	
MW-14 Long	4-21-03	1730		✓						3			3	
Trip Blank	4-21-03			✓						3			3	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☒ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	4-21-03	2200	1. Received By	4-22-03	925
2. Relinquished By	4/21/03	2200	2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

ASI

ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Report Number **174523**

Project: TK Louisville-Louisville GA, Project#12000-0-2050.111

Prepared For:
MACTEC Engineering - Kennesaw
3200 Town Point Drive
Suite 100
Kennesaw, GA 30144

Attention: Ms. Rhonda Quinn

April 24, 2003

P.O. No. 33364

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Adrea N Tuck
Project Manager

J. P. Ellis
Quality Assurance

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Environmental Monitoring & Laboratory Analysis
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Report Number 174523

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Analytical Services, Inc. certifies that the following analytical results meet all the requirements of the National Environmental Laboratroy Accreditation Conference (NELAC).

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Georgia (812); NELAC (E87315) scope: CWA, SDWA, RCRA expires June 30, 2003; NSF International (04180) scope: CWA, SDWA, RCRA expires July 2004; Arkansas; California (01160CA); Connecticut (PH-0250); Florida (E87315); Kansas (E-10334); Kentucky (90126); Louisiana (02069); New Jersey (GA001); New York (11762); North Carolina (381); Oklahoma (9907); South Carolina (98011); Tennessee (02994); USDA Soil Import License (S-36027). For more information visit our web site at: asi-lab.com

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110 Technology Parkway Norcross, GA 30092
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Definitions of Terms

B - Found in Laboratory Blank
BDL - Below Detection Limit
C - Co-eluting Isomer Present
F - Positively Identified Below the Reporting Limit
H - Results Within Limits, See Attached
J - Estimated Concentration
M - A Matrix Effect was Determined to be Present in the Sample
ND - None Detected
R - The Data is Unusable Due to the Inability to Analyze the Sample and Meet the Quality Control Criteria
TIC - Tentatively Identified Compound
U - Not Detected at the Level Reported
CFU - Colony Forming Units

NOTE: Unless otherwise noted, all results are reported on an as received basis.

Analytical Services Inc., Norcross Laboratory maintains the following certifications, approvals, and accreditations:
Georgia (812); NELAC (E87315) scope: CWA, SDWA, RCRA expires June 30, 2003; NSF International (04180) scope: CWA, SDWA, RCRA expires July 2004; Arkansas; California (01160CA); Connecticut (PH-0250); Florida (E87315); Kansas (E-10334); Kentucky (90126); Louisiana (02069); New Jersey (GA001); New York (11762); North Carolina (381); Oklahoma (9907); South Carolina (98011); Tennessee (02994); USDA Soil Import License (S-36027). For more information visit our web site at: asi-lab.com

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110 Technology Parkway Norcross, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

MACTEC Engineering - Kennesaw
3200 Town Point Drive
Suite 100
Kennesaw, GA 30144

Attention: Ms. Rhonda Quinn
Report No. **174523-1**

April 24, 2003

Sample Description

MACTEC Engineering - Kennesaw
Groundwater, Grab, TK Louisville-Louisville GA, Project#12000-0-2050.111, MW-14 Pre, 04/21/2003, 11:30, received 04/22/2003

Analytical Method	Analyte	Result	Detection Limit	Units
	Volatile Organics			
EPA 8260B	Benzene	BDL	25	ug/L
EPA 8260B	Bromodichloromethane	BDL	25	ug/L
EPA 8260B	Bromoform	BDL	25	ug/L
EPA 8260B	Bromomethane	BDL	25	ug/L
EPA 8260B	Carbon tetrachloride	BDL	25	ug/L
EPA 8260B	Chlorobenzene	BDL	25	ug/L
EPA 8260B	Chlorodibromomethane	BDL	25	ug/L
EPA 8260B	Chloroethane	BDL	25	ug/L
EPA 8260B	Chloroform	BDL	25	ug/L
EPA 8260B	Chloromethane	BDL	25	ug/L
EPA 8260B	Dibromomethane	BDL	25	ug/L
EPA 8260B	1,2-Dichlorobenzene	BDL	25	ug/L
EPA 8260B	1,3-Dichlorobenzene	BDL	25	ug/L
EPA 8260B	1,4-Dichlorobenzene	BDL	25	ug/L
EPA 8260B	Dichlorodifluoromethane	BDL	25	ug/L
EPA 8260B	1,1-Dichloroethane	BDL	25	ug/L
EPA 8260B	1,2-Dichloroethane	BDL	25	ug/L
EPA 8260B	1,1-Dichloroethene	BDL	25	ug/L
EPA 8260B	cis-1,2-Dichloroethene	190	25	ug/L
EPA 8260B	trans-1,2-Dichloroethene	BDL	25	ug/L
EPA 8260B	1,2-Dichloropropane	BDL	25	ug/L
EPA 8260B	1,3-Dichloropropane	BDL	25	ug/L
EPA 8260B	2,2-Dichloropropane	BDL	25	ug/L
EPA 8260B	1,1-Dichloropropene	BDL	25	ug/L
EPA 8260B	1,4-Dioxane	BDL	1300	ug/L
EPA 8260B	Ethylbenzene	BDL	25	ug/L
EPA 8260B	Hexachlorobutadiene	BDL	25	ug/L

BDL - Below Detection Limit

Sample Description

MACTEC Engineering - Kennesaw

Groundwater, Grab, TK Louisville-Louisville GA, Project#12000-0-2050.111, MW-14 Pre, 04/21/2003, 11:30, received 04/22/2003

Analytical Method	Analyte	Result	Detection Limit	Units
EPA 8260B	Isopropylbenzene	BDL	25	ug/L
EPA 8260B	Methylene chloride	BDL	25	ug/L
EPA 8260B	Naphthalene	BDL	25	ug/L
EPA 8260B	Styrene	BDL	25	ug/L
EPA 8260B	1,1,1,2-Tetrachloroethane	BDL	25	ug/L
EPA 8260B	1,1,2,2-Tetrachloroethane	BDL	25	ug/L
EPA 8260B	Tetrachloroethene	BDL	25	ug/L
EPA 8260B	Toluene	29	25	ug/L
EPA 8260B	1,2,4-Trichlorobenzene	BDL	25	ug/L
EPA 8260B	1,1,1-Trichloroethane	BDL	25	ug/L
EPA 8260B	1,1,2-Trichloroethane	BDL	25	ug/L
EPA 8260B	Trichloroethene	2400	100	ug/L
EPA 8260B	Trichlorofluoromethane	BDL	25	ug/L
EPA 8260B	1,2,3-Trichloropropane	BDL	25	ug/L
EPA 8260B	Vinyl chloride	BDL	10	ug/L
EPA 8260B	Xylenes (total)	BDL	25	ug/L

BDL - Below Detection Limit

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Laboratory Report

MACTEC Engineering - Kennesaw
3200 Town Point Drive
Suite 100
Kennesaw, GA 30144

Attention: Ms. Rhonda Quinn
Report No. **174523-2**

April 24, 2003

Sample Description

MACTEC Engineering - Kennesaw
Groundwater, Grab, TK Louisville-Louisville GA, Project#12000-0-2050.111, MW-14 Post, 04/21/2003, 12:50, received 04/22/2003

Analytical Method	Analyte	Result	Detection Limit	Units
	Volatile Organics			
EPA 8260B	Benzene	BDL	100	ug/L
EPA 8260B	Bromodichloromethane	BDL	100	ug/L
EPA 8260B	Bromoform	BDL	100	ug/L
EPA 8260B	Bromomethane	BDL	100	ug/L
EPA 8260B	Carbon tetrachloride	BDL	100	ug/L
EPA 8260B	Chlorobenzene	BDL	100	ug/L
EPA 8260B	Chlorodibromomethane	BDL	100	ug/L
EPA 8260B	Chloroethane	BDL	100	ug/L
EPA 8260B	Chloroform	BDL	100	ug/L
EPA 8260B	Chloromethane	BDL	100	ug/L
EPA 8260B	Dibromomethane	BDL	100	ug/L
EPA 8260B	1,2-Dichlorobenzene	BDL	100	ug/L
EPA 8260B	1,3-Dichlorobenzene	BDL	100	ug/L
EPA 8260B	1,4-Dichlorobenzene	BDL	100	ug/L
EPA 8260B	Dichlorodifluoromethane	BDL	100	ug/L
EPA 8260B	1,1-Dichloroethane	BDL	100	ug/L
EPA 8260B	1,2-Dichloroethane	BDL	100	ug/L
EPA 8260B	1,1-Dichloroethene	BDL	100	ug/L
EPA 8260B	cis-1,2-Dichloroethene	410	100	ug/L
EPA 8260B	trans-1,2-Dichloroethene	BDL	100	ug/L
EPA 8260B	1,2-Dichloropropane	BDL	100	ug/L
EPA 8260B	1,3-Dichloropropane	BDL	100	ug/L
EPA 8260B	2,2-Dichloropropane	BDL	100	ug/L
EPA 8260B	1,1-Dichloropropene	BDL	100	ug/L
EPA 8260B	1,4-Dioxane	BDL	5000	ug/L
EPA 8260B	Ethylbenzene	BDL	100	ug/L
EPA 8260B	Hexachlorobutadiene	BDL	100	ug/L

BDL - Below Detection Limit

Sample Description

MACTEC Engineering - Kennesaw

Groundwater, Grab, TK Louisville-Louisville GA, Project#12000-0-2050.111, MW-14 Post, 04/21/2003, 12:50, received 04/22/2003

Analytical Method	Analyte	Result	Detection Limit	Units
EPA 8260B	Isopropylbenzene	BDL	100	ug/L
EPA 8260B	Methylene chloride	BDL	100	ug/L
EPA 8260B	Naphthalene	BDL	100	ug/L
EPA 8260B	Styrene	BDL	100	ug/L
EPA 8260B	1,1,1,2-Tetrachloroethane	BDL	100	ug/L
EPA 8260B	1,1,2,2-Tetrachloroethane	BDL	100	ug/L
EPA 8260B	Tetrachloroethene	BDL	100	ug/L
EPA 8260B	Toluene	BDL	100	ug/L
EPA 8260B	1,2,4-Trichlorobenzene	BDL	100	ug/L
EPA 8260B	1,1,1-Trichloroethane	BDL	100	ug/L
EPA 8260B	1,1,2-Trichloroethane	BDL	100	ug/L
EPA 8260B	Trichloroethene	8200	500	ug/L
EPA 8260B	Trichlorofluoromethane	BDL	100	ug/L
EPA 8260B	1,2,3-Trichloropropane	BDL	100	ug/L
EPA 8260B	Vinyl chloride	BDL	40	ug/L
EPA 8260B	Xylenes (total)	BDL	100	ug/L

BDL - Below Detection Limit

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Laboratory Report

MACTEC Engineering - Kennesaw
3200 Town Point Drive
Suite 100
Kennesaw, GA 30144

Attention: Ms. Rhonda Quinn
Report No. **174523-3**

April 24, 2003

Sample Description

MACTEC Engineering - Kennesaw
Groundwater, Grab, TK Louisville-Louisville GA, Project#12000-0-2050.111, MW-14 Long, 04/21/2003, received 04/22/2003

Analytical Method	Analyte	Result	Detection Limit	Units
	Volatile Organics			
EPA 8260B	Benzene	BDL	100	ug/L
EPA 8260B	Bromodichloromethane	BDL	100	ug/L
EPA 8260B	Bromoform	BDL	100	ug/L
EPA 8260B	Bromomethane	BDL	100	ug/L
EPA 8260B	Carbon tetrachloride	BDL	100	ug/L
EPA 8260B	Chlorobenzene	BDL	100	ug/L
EPA 8260B	Chlorodibromomethane	BDL	100	ug/L
EPA 8260B	Chloroethane	BDL	100	ug/L
EPA 8260B	Chloroform	BDL	100	ug/L
EPA 8260B	Chloromethane	BDL	100	ug/L
EPA 8260B	Dibromomethane	BDL	100	ug/L
EPA 8260B	1,2-Dichlorobenzene	BDL	100	ug/L
EPA 8260B	1,3-Dichlorobenzene	BDL	100	ug/L
EPA 8260B	1,4-Dichlorobenzene	BDL	100	ug/L
EPA 8260B	Dichlorodifluoromethane	BDL	100	ug/L
EPA 8260B	1,1-Dichloroethane	BDL	100	ug/L
EPA 8260B	1,2-Dichloroethane	BDL	100	ug/L
EPA 8260B	1,1-Dichloroethene	BDL	100	ug/L
EPA 8260B	cis-1,2-Dichloroethene	510	100	ug/L
EPA 8260B	trans-1,2-Dichloroethene	BDL	100	ug/L
EPA 8260B	1,2-Dichloropropane	BDL	100	ug/L
EPA 8260B	1,3-Dichloropropane	BDL	100	ug/L
EPA 8260B	2,2-Dichloropropane	BDL	100	ug/L
EPA 8260B	1,1-Dichloropropene	BDL	100	ug/L
EPA 8260B	1,4-Dioxane	BDL	5000	ug/L
EPA 8260B	Ethylbenzene	BDL	100	ug/L
EPA 8260B	Hexachlorobutadiene	BDL	100	ug/L

BDL - Below Detection Limit

Sample Description

MACTEC Engineering - Kennesaw

Groundwater, Grab, TK Louisville-Louisville GA, Project#12000-0-2050.111, MW-14 Long, 04/21/2003, received 04/22/2003

Analytical Method	Analyte	Result	Detection Limit	Units
EPA 8260B	Isopropylbenzene	BDL	100	ug/L
EPA 8260B	Methylene chloride	BDL	100	ug/L
EPA 8260B	Naphthalene	BDL	100	ug/L
EPA 8260B	Styrene	BDL	100	ug/L
EPA 8260B	1,1,1,2-Tetrachloroethane	BDL	100	ug/L
EPA 8260B	1,1,2,2-Tetrachloroethane	BDL	100	ug/L
EPA 8260B	Tetrachloroethene	BDL	100	ug/L
EPA 8260B	Toluene	BDL	100	ug/L
EPA 8260B	1,2,4-Trichlorobenzene	BDL	100	ug/L
EPA 8260B	1,1,1-Trichloroethane	BDL	100	ug/L
EPA 8260B	1,1,2-Trichloroethane	BDL	100	ug/L
EPA 8260B	Trichloroethene	8800	500	ug/L
EPA 8260B	Trichlorofluoromethane	BDL	100	ug/L
EPA 8260B	1,2,3-Trichloropropane	BDL	100	ug/L
EPA 8260B	Vinyl chloride	BDL	40	ug/L
EPA 8260B	Xylenes (total)	BDL	100	ug/L

BDL - Below Detection Limit

ASI
ANALYTICAL SERVICES, INC.
Environmental Monitoring & Laboratory Analysis
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Laboratory Report

MACTEC Engineering - Kennesaw
3200 Town Point Drive
Suite 100
Kennesaw, GA 30144

Attention: Ms. Rhonda Quinn
Report No. **174523-4**

April 24, 2003

Sample Description

MACTEC Engineering - Kennesaw
Water, TK Louisville-Louisville GA, Project#12000-0-2050.111, Trip Blank, 04/21/2003, received 04/22/2003

Analytical Method	Analyte	Result	Detection Limit	Units
	Volatile Organics			
EPA 8260B	Benzene	BDL	5	ug/L
EPA 8260B	Bromodichloromethane	BDL	5	ug/L
EPA 8260B	Bromoform	BDL	5	ug/L
EPA 8260B	Bromomethane	BDL	5	ug/L
EPA 8260B	Carbon tetrachloride	BDL	5	ug/L
EPA 8260B	Chlorobenzene	BDL	5	ug/L
EPA 8260B	Chlorodibromomethane	BDL	5	ug/L
EPA 8260B	Chloroethane	BDL	5	ug/L
EPA 8260B	Chloroform	BDL	5	ug/L
EPA 8260B	Chloromethane	BDL	5	ug/L
EPA 8260B	Dibromomethane	BDL	5	ug/L
EPA 8260B	1,2-Dichlorobenzene	BDL	5	ug/L
EPA 8260B	1,3-Dichlorobenzene	BDL	5	ug/L
EPA 8260B	1,4-Dichlorobenzene	BDL	5	ug/L
EPA 8260B	Dichlorodifluoromethane	BDL	5	ug/L
EPA 8260B	1,1-Dichloroethane	BDL	5	ug/L
EPA 8260B	1,2-Dichloroethane	BDL	5	ug/L
EPA 8260B	1,1-Dichloroethene	BDL	5	ug/L
EPA 8260B	cis-1,2-Dichloroethene	BDL	5	ug/L
EPA 8260B	trans-1,2-Dichloroethene	BDL	5	ug/L
EPA 8260B	1,2-Dichloropropane	BDL	5	ug/L
EPA 8260B	1,3-Dichloropropane	BDL	5	ug/L
EPA 8260B	2,2-Dichloropropane	BDL	5	ug/L
EPA 8260B	1,1-Dichloropropene	BDL	5	ug/L
EPA 8260B	1,4-Dioxane	BDL	250	ug/L
EPA 8260B	Ethylbenzene	BDL	5	ug/L
EPA 8260B	Hexachlorobutadiene	BDL	5	ug/L
EPA 8260B	Isopropylbenzene	BDL	5	ug/L

BDL - Below Detection Limit

Sample Description

MACTEC Engineering - Kennesaw

Water, TK Louisville-Louisville GA, Project#12000-0-2050.111, Trip Blank, 04/21/2003, received 04/22/2003

Analytical Method	Analyte	Result	Detection Limit	Units
EPA 8260B	Methylene chloride	BDL	5	ug/L
EPA 8260B	Naphthalene	BDL	5	ug/L
EPA 8260B	Styrene	BDL	5	ug/L
EPA 8260B	1,1,1,2-Tetrachloroethane	BDL	5	ug/L
EPA 8260B	1,1,2,2-Tetrachloroethane	BDL	5	ug/L
EPA 8260B	Tetrachloroethene	BDL	5	ug/L
EPA 8260B	Toluene	BDL	5	ug/L
EPA 8260B	1,2,4-Trichlorobenzene	BDL	5	ug/L
EPA 8260B	1,1,1-Trichloroethane	BDL	5	ug/L
EPA 8260B	1,1,2-Trichloroethane	BDL	5	ug/L
EPA 8260B	Trichloroethene	BDL	5	ug/L
EPA 8260B	Trichlorofluoromethane	BDL	5	ug/L
EPA 8260B	1,2,3-Trichloropropane	BDL	5	ug/L
EPA 8260B	Vinyl chloride	BDL	2	ug/L
EPA 8260B	Xylenes (total)	BDL	5	ug/L

BDL - Below Detection Limit

Volatile Organics by Method EPA 8260

Spike Recovery

Batch # 90879 ***Matrix : AQUEOUS***

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC/LCD RPD	%Recovery Range	RPD Range
Chlorobenzene	104	98	6	87 - 106	0 - 12
Note : ALL RECOVERIES AND RPDS ARE WITHIN CONTROL LIMIT.					
Toluene	104	101	3	89 - 111	0 - 12
Trichloroethene	104	103	1	84 - 107	0 - 14
Benzene	107	103	4	88 - 110	0 - 12
1,1-Dichloroethene	99	94	5	75 - 107	0 - 23

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS/MSD RPD	%Recovery Range	RPD Range
Chlorobenzene	102	105	3	86 - 107	0 - 9
Note : ALL RECOVERIES AND RPDS ARE WITHIN CONTROL LIMIT.					
Toluene	111	111	0	87 - 113	0 - 9
Trichloroethene	109	112	3	82 - 108	0 - 10
Benzene	110	112	2	87 - 113	0 - 9
1,1-Dichloroethene	106	103	3	72 - 109	0 - 14

Volatile Organics by Method EPA 8260
Surrogate Recovery

Batch # 90879 ***Matrix : AQUEOUS***

% Recovery Objectives

Surrogate #	Surrogate Name	Surrogate Range
S1	Dibromofluoromethane	90 - 111
S2	1,2-Dichloroethane-d4	84 - 121
S3	Toluene-d8	91 - 110
S4	4-Bromofluorobenzene	86 - 108

Sample	File	S1	S2	S3	S4	S5	S6
90879LCS	C6802	98	96	101	105		
90879LCSD	C6803	99	99	98	104		
90879BLK	C6804	99	100	100	105		
04-22-03BLK2	C6805	98	102	101	104		
174490-20	C6829	101	104	101	104		
174490-21	C6830	101	101	100	104		
174490-22	C6831	100	102	101	102		
174490-23	C6832	102	104	101	105		
174490-24	C6833	101	106	100	106		
174490-25	C6834	101	103	99	104		
174490-26	C6835	98	103	101	102		
174490-27	C6836	99	103	101	101		
04-22-03BLK3	C6848	101	101	101	105		
04-22-03BLK4	C6849	100	103	100	103		
174490-28	C6850	101	104	100	107		
174490-29	C6851	98	104	100	105		
174490-29MS	C6852	99	101	99	107		
174490-29MSD	C6853	97	106	99	105		
174490-29DUP	C6854	100	102	102	108		
174490-30	C6855	100	105	100	104		
174490-31	C6856	106	104	99	103		
174490-32	C6857	98	101	102	102		
174490-33	C6858	94	98	99	105		
174490-34	C6859	100	105	100	101		
174523-4	C6860	99	99	100	103		
174523-1	C6864	100	99	99	105		
Note: 1:20							
174523-2	C6865	97	101	100	103		
Note: 1:20							

Volatile Organics by Method EPA 8260

Surrogate Recovery

Batch # 90879 ***Matrix : AQUEOUS***

% Recovery Objectives

Surrogate #	Surrogate Name	Surrogate Range
S1	Dibromofluoromethane	90 - 111
S2	1,2-Dichloroethane-d4	84 - 121
S3	Toluene-d8	91 - 110
S4	4-Bromofluorobenzene	86 - 108

Sample	File	S1	S2	S3	S4	S5	S6
174523-3	C6866	98	99	101	107		
Note: 1:20							
04-23-03BLK1	C6876	100	98	101	105		
04-23-03BLK2	C6879	100	101	99	106		
174523-1D	C6880	100	100	99	104		
Note: 1:5, REPORTED							
174490-27D	C6881	97	98	99	102		
Note: 1:5							
174490-30D	C6882	97	100	100	105		
Note: 1:5							
174523-2D	C6883	99	99	98	103		
Note: 1:100							
174523-3D	C6884	97	99	99	105		
Note: 1:100							

Volatile Organics by Method EPA 8260

Blank Results Information

Batch # 90879 ***Matrix : AQUEOUS***

Analyte	Blank Hits	Lowest Sample Det. Limit	Units
Benzene	None	5	ug/L
Bromodichloromethane	None	5	ug/L
Bromoform	None	5	ug/L
Bromomethane	None	5	ug/L
Carbon tetrachloride	None	5	ug/L
Chlorobenzene	None	5	ug/L
Chlorodibromomethane	None	5	ug/L
Chloroethane	None	5	ug/L
Chloroform	None	5	ug/L
Chloromethane	None	5	ug/L
Dibromomethane	None	5	ug/L
1,2-Dichlorobenzene	None	5	ug/L
1,3-Dichlorobenzene	None	5	ug/L
1,4-Dichlorobenzene	None	5	ug/L
Dichlorodifluoromethane	None	5	ug/L
1,1-Dichloroethane	None	5	ug/L
1,2-Dichloroethane	None	5	ug/L
1,1-Dichloroethene	None	5	ug/L
cis-1,2-Dichloroethene	None	5	ug/L
trans-1,2-Dichloroethene	None	5	ug/L
1,2-Dichloropropane	None	5	ug/L
1,3-Dichloropropane	None	5	ug/L
2,2-Dichloropropane	None	5	ug/L
1,1-Dichloropropene	None	5	ug/L
1,4-Dioxane	None	250	ug/L
Ethylbenzene	None	5	ug/L
Hexachlorobutadiene	None	5	ug/L
Isopropylbenzene	None	5	ug/L
Methylene chloride	None	5	ug/L
Naphthalene	None	5	ug/L
Styrene	None	5	ug/L
1,1,1,2-Tetrachloroethane	None	5	ug/L
1,1,2,2-Tetrachloroethane	None	5	ug/L
Tetrachloroethene	None	5	ug/L
Toluene	None	5	ug/L
1,2,4-Trichlorobenzene	None	5	ug/L
1,1,1-Trichloroethane	None	5	ug/L
1,1,2-Trichloroethane	None	5	ug/L
Trichloroethene	None	5	ug/L
Trichlorofluoromethane	None	5	ug/L
1,2,3-Trichloropropane	None	5	ug/L
Vinyl chloride	None	2	ug/L

Volatile Organics by Method EPA 8260

Blank Results Information

Batch # 90879 ***Matrix : AQUEOUS***

Analyte	Blank Hits	Lowest Sample Det. Limit	Units
Xylenes	None	5	ug/L

Volatile Organics by Method EPA 8260
Sample Batch Information

Batch # 90879 ***Matrix : AQUEOUS***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
90879LCS	/ /				04/22/03	0835	MHU	VOA3
90879LCSD	/ /				04/22/03	0853	MHU	VOA3
90879BLK	/ /				04/22/03	0911	MHU	VOA3
04-22-03BLK2	/ /				04/22/03	0929	MHU	VOA3
174490-20	/ /				04/22/03	1636	MHU	VOA3
174490-21	/ /				04/22/03	1654	MHU	VOA3
174490-22	/ /				04/22/03	1712	MHU	VOA3
174490-23	/ /				04/22/03	1729	MHU	VOA3
174490-24	/ /				04/22/03	1747	MHU	VOA3
174490-25	/ /				04/22/03	1805	MHU	VOA3
174490-26	/ /				04/22/03	1823	MHU	VOA3
174490-27	/ /				04/22/03	1841	MHU	VOA3
04-22-03BLK3	/ /				04/22/03	2215	MHU	VOA3
04-22-03BLK4	/ /				04/22/03	2233	MHU	VOA3
174490-28	/ /				04/22/03	2251	MHU	VOA3
174490-29	/ /				04/22/03	2309	MHU	VOA3
174490-29MS	/ /				04/22/03	2326	MHU	VOA3
174490-29MSD	/ /				04/22/03	2344	MHU	VOA3
174490-29DUP	/ /				04/23/03	0002	MHU	VOA3
174490-30	/ /				04/23/03	0020	MHU	VOA3
174490-31	/ /				04/23/03	0038	MHU	VOA3
174490-32	/ /				04/23/03	0056	MHU	VOA3
174490-33	/ /				04/23/03	0113	MHU	VOA3
174490-34	/ /				04/23/03	0131	MHU	VOA3
174523-4	/ /				04/23/03	0149	MHU	VOA3
174523-1	/ /			1:20	04/23/03	0259	MHU	VOA3
^^ Dilution factor: 20								
174523-2	/ /			1:20	04/23/03	0317	MHU	VOA3
^^ Dilution factor: 20								
174523-3	/ /			1:20	04/23/03	0335	MHU	VOA3
^^ Dilution factor: 20								
04-23-03BLK1	/ /				04/23/03	0943	MHU	VOA3
04-23-03BLK2	/ /				04/23/03	1036	MHU	VOA3
174523-1D	/ /			1:5, REPORTED	04/23/03	1054	MHU	VOA3
^^ Dilution factor: 5								
174490-27D	/ /			1:5	04/23/03	1112	MHU	VOA3
^^ Dilution factor: 5								
174490-30D	/ /			1:5	04/23/03	1130	MHU	VOA3
^^ Dilution factor: 5								
174523-2D	/ /			1:100	04/23/03	1148	MHU	VOA3
^^ Dilution factor: 100								

Volatile Organics by Method EPA 8260

Sample Batch Information

Batch # 90879 ***Matrix : AQUEOUS***

	Preparation				Analysis			
Sample ID	Date	Time	By	Notes	Date	Time	By	Inst #
174523-3D	/ /			1:100	04/23/03	1205	MHU	VOA3
^^ Dilution factor: 100								

50656

CHAIN OF CUSTODY RECORD

ASI

ANALYTICAL SERVICES, INC.
ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY NORCROSS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Mactec Engineering

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
3200 Town Point Dr
Kennesaw GA 30144
770 421 3516 fax 770 421 3486

REPORT TO: Rhonda Quinn
CC:

REQUESTED COMPLETION DATE: 24 hr TAT
PO #: 12000-0-2050.111

PROJECT NAME/STATE: TK Louisville Louisville, GA

PROJECT #: 12000-0-2050.111

DATE	TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Site-specific VOCs 8260 HCl									LAB ID NUMBER
CONTAINER TYPE																
PRESERVATION																
4-21-03	1130	GW		✓	MW-14 PRE	3	3									1
4-21-03	1250	GW		✓	MW-14 Post	3	3									2
4-21-03		GW		✓	MW-14 Long	3	3									3
4-21-03		~~GW~~		✓	Trip Blank	3	3									4

ANALYSIS REQUESTED

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, 4°
A - AMBER GLASS	2 - H2SO4, 4°
G - CLEAR GLASS	3 - HNO3, 4°
V - VOA VIAL	4 - NaOH, 4°
S - STERILE	5 - NaOH/ZnAc, 4°
O - OTHER	6 - Na2S2O3, 4°
	7 - 4°

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

See attached list for VOCs & Reporting levels

SAMPLED BY AND TITLE: Rhonda Quinn/Stacy Durden
DATE/TIME: 4-22-03
RELINQUISHED BY:
DATE/TIME: 4-22-03 0910

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB:
DATE/TIME: 4/22/03 10:40
SAMPLE SHIPPED VIA: UPS FED-EX COURIER CLIENT OTHER:

pH: N/A Labeled Preserved
Ice: Yes or No
Temperature: 3.6/10.4
Custody Seal: Intact Broken Missing
Cooler # Client

FOR LAB USE ONLY
LAB #: 174523
In-house location: V
Entered Into LIMS: CF

Please use Black Ink to complete form.

SAMPLE SUMMARY

A3E150229

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FNRWE	001	MW-17	05/14/03	10:30
FNRWG	002	MW-18	05/14/03	12:50

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK-LOUISVILLE GA
SDG #: 3E15229

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

May 30, 2003

CASE NARRATIVE

SDG 3E15229

The following report contains the analytical results for three water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting, Inc. from the TK – Louisville GA Site. The samples were received on May 15, 2003, according to documented sample acceptance procedures.

This SDG consists of two (2) laboratory ID's: A3E150229 and A3E150236.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on May 22, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 4.3° C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3E150229

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

ANALYTICAL METHODS SUMMARY

A3E150229

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17

GC/MS Volatiles

Lot-Sample #...: A3E150229-001 Work Order #...: FNRWE1AA Matrix.....: WG
Date Sampled...: 05/14/03 10:30 Date Received..: 05/15/03
Prep Date.....: 05/20/03 Analysis Date..: 05/20/03
Prep Batch #...: 3142121
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichlorobenzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17

GC/MS Volatiles

Lot-Sample #...: A3E150229-001 Work Order #...: FNRWE1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(78 - 115)
1,2-Dichloroethane-d4	94	(77 - 120)
Toluene-d8	99	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18

GC/MS Volatiles

Lot-Sample #...: A3E150229-002 Work Order #...: FNRWG1AA Matrix.....: WG
Date Sampled...: 05/14/03 12:50 Date Received..: 05/15/03
Prep Date.....: 05/20/03 Analysis Date..: 05/20/03
Prep Batch #...: 3142121
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18

GC/MS Volatiles

Lot-Sample #...: A3E150229-002 Work Order #...: FNRWG1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(78 - 115)
1,2-Dichloroethane-d4	103	(77 - 120)
Toluene-d8	105	(78 - 111)
4-Bromofluorobenzene	99	(80 - 114)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3E150229 Work Order #...: FN65V1AA Matrix.....: WATER
MB Lot-Sample #: A3E220000-121

Prep Date.....: 05/20/03
Analysis Date..: 05/20/03 Prep Batch #...: 3142121
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3E150229 Work Order #...: FN65V1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(78 - 115)
1,2-Dichloroethane-d4	94	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3E150229 Work Order #...: FN65V1AC Matrix.....: WATER
LCS Lot-Sample#: A3E220000-121
Prep Date.....: 05/20/03 Analysis Date..: 05/20/03
Prep Batch #...: 3142121
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**97**	**(65 - 119)**	**SW846 8260B**
Trichloroethene	**94**	**(80 - 122)**	**SW846 8260B**
Benzene	**97**	**(79 - 116)**	**SW846 8260B**
Toluene	**91**	**(76 - 119)**	**SW846 8260B**
Chlorobenzene	**92**	**(81 - 115)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(78 - 115)
1,2-Dichloroethane-d4	99	(77 - 120)
Toluene-d8	99	(78 - 111)
4-Bromofluorobenzene	96	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3E150229 Work Order #...: FNRWG1AC-MS Matrix.....: WG
MS Lot-Sample #: A3E150229-002 FNRWG1AD-MSD
Date Sampled...: 05/14/03 12:50 Date Received..: 05/15/03
Prep Date.....: 05/20/03 Analysis Date..: 05/20/03
Prep Batch #...: 3142121
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**103**	**(57 - 138)**			**SW846 8260B**
	101	**(57 - 138)**	**2.0**	**(0-15)**	**SW846 8260B**
Trichloroethene	**95**	**(58 - 141)**			**SW846 8260B**
	96	**(58 - 141)**	**0.89**	**(0-17)**	**SW846 8260B**
Benzene	**98**	**(73 - 123)**			**SW846 8260B**
	98	**(73 - 123)**	**0.40**	**(0-11)**	**SW846 8260B**
Toluene	**91**	**(67 - 129)**			**SW846 8260B**
	92	**(67 - 129)**	**1.0**	**(0-14)**	**SW846 8260B**
Chlorobenzene	**93**	**(70 - 122)**			**SW846 8260B**
	92	**(70 - 122)**	**1.0**	**(0-14)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(78 - 115)
	102	(78 - 115)
1,2-Dichloroethane-d4	99	(77 - 120)
	99	(77 - 120)
Toluene-d8	100	(78 - 111)
	99	(78 - 111)
4-Bromofluorobenzene	98	(80 - 114)
	95	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client: Mactec	Project Manager: Rhonda Quinn	Date: 5/14/03	Chain of Custody Number: 16571?
Address: 3200 Town Point Drive NW (Suite 100)	Telephone Number (Area Code)/Fax Number: 770) 421-3400 770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact:	Lab Contact: Roger Toth	
Project Name and Location (State): TK-Louisville GA	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	Temp.	Special Instructions/ Conditions of Receipt
MW-17	5/14/03	10:30		X						3			X		
MW-18	5/14/03	12:50		X						3			X		
Seep J	5/14/03	15:00		X						3			X		
Trip Blank	5/14/03	—		X						1			X		
Temp. Blank	5/14/03	—		X			1							X	

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☒ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

1. Relinquished By: David W Knauf	Date: 5/14/03	Time: 21:00	1. Received By:	Date: 5-15-03	Time: 10:05
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample, PINK - Field Copy

SAMPLE SUMMARY

A3E300288

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FPNNE	001	MW-19	05/28/03	15:55
FPNNK	002	MW-20	05/28/03	18:45
FPNNL	003	TRIP BLANK	05/28/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

STL

ANALYTICAL REPORT

THERMO KING, LOUISVILLE

Lot #: A3E300288

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth

Roger K. Toth
Project Manager

June 13, 2003

CASE NARRATIVE

A3E300288

The following report contains the analytical results for two water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting from the Thermo King, Louisville Site. The samples were received on May 30, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter listed on the Analytical Methods Summary page in accordance with the method indicated. Preliminary results were provided to Rhonda Quinn and D. Alcott on June 10 and 11, 2003. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at the laboratory at a temperature of 1.6° C.

EXECUTIVE SUMMARY - Detection Highlights

A3E300288

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-19 05/28/03 15:55 001				
Methylene chloride	380 B	250	ug/L	SW846 8260B
Trichloroethene	8000	250	ug/L	SW846 8260B
MW-20 05/28/03 18:45 002				
cis-1,2-Dichloroethene	14	2.5	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3E300288

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

GC/MS Volatiles

Lot-Sample #...: A3E300288-001 **Work Order #...:** FPNNE1AA **Matrix.....:** WG
Date Sampled...: 05/28/03 15:55 **Date Received..:** 05/30/03
Prep Date.....: 06/05/03 **Analysis Date..:** 06/05/03
Prep Batch #...: 3157392
Dilution Factor: 50 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	250	ug/L
Bromoform	ND	250	ug/L
Bromomethane	ND	250	ug/L
Carbon tetrachloride	ND	250	ug/L
Chlorobenzene	ND	250	ug/L
Chlorodibromomethane	ND	250	ug/L
Chloroethane	ND	250	ug/L
Chloroform	ND	250	ug/L
Chloromethane	ND	250	ug/L
Dibromomethane	ND	250	ug/L
1,2-Dichlorobenzene	ND	250	ug/L
1,3-Dichlorobenzene	ND	250	ug/L
1,4-Dichlorobenzene	ND	250	ug/L
Dichlorodifluoromethane	ND	250	ug/L
1,1-Dichloroethane	ND	250	ug/L
1,2-Dichloroethane	ND	250	ug/L
cis-1,2-Dichloroethene	ND	120	ug/L
trans-1,2-Dichloroethene	ND	120	ug/L
1,1-Dichloroethene	ND	250	ug/L
1,2-Dichloropropane	ND	250	ug/L
1,3-Dichloropropane	ND	250	ug/L
2,2-Dichloropropane	ND	250	ug/L
1,1-Dichloropropene	ND	250	ug/L
1,4-Dioxane	ND	10000	ug/L
Ethylbenzene	ND	250	ug/L
Hexachlorobutadiene	ND	250	ug/L
Isopropylbenzene	ND	250	ug/L
Methylene chloride	**380 B**	**250**	**ug/L**
Naphthalene	ND	250	ug/L
Styrene	ND	250	ug/L
1,1,1,2-Tetrachloroethane	ND	250	ug/L
1,1,2,2-Tetrachloroethane	ND	250	ug/L
Tetrachloroethene	ND	250	ug/L
Toluene	ND	250	ug/L
1,2,4-Trichloro-benzene	ND	250	ug/L
1,1,1-Trichloroethane	ND	250	ug/L
1,1,2-Trichloroethane	ND	250	ug/L
Trichloroethene	**8000**	**250**	**ug/L**

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

GC/MS Volatiles

Lot-Sample #...: A3E300288-001 Work Order #...: FPNNE1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	250	ug/L
1,2,3-Trichloropropane	ND	250	ug/L
Vinyl chloride	ND	250	ug/L
Xylenes (total)	ND	250	ug/L
Bromodichloromethane	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(78 - 115)
1,2-Dichloroethane-d4	109	(77 - 120)
Toluene-d8	89	(78 - 111)
4-Bromofluorobenzene	86	(80 - 114)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20

GC/MS Volatiles

Lot-Sample #...: A3E300288-002 Work Order #...: FPNNK1AA Matrix.....: WG
Date Sampled...: 05/28/03 18:45 Date Received..: 05/30/03
Prep Date.....: 06/04/03 Analysis Date..: 06/04/03
Prep Batch #...: 3156266
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	**14**	**2.5**	**ug/L**
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20

GC/MS Volatiles

Lot-Sample #...: A3E300288-002 Work Order #...: FPNNK1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(78 - 115)
1,2-Dichloroethane-d4	103	(77 - 120)
Toluene-d8	90	(78 - 111)
4-Bromofluorobenzene	87	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3E300288-003 Work Order #...: FPNNL1AA Matrix.....: WQ
Date Sampled...: 05/28/03 Date Received..: 05/30/03
Prep Date.....: 06/04/03 Analysis Date..: 06/04/03
Prep Batch #...: 3156266
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3E300288 **Work Order #...:** FP0221AA **Matrix.....:** WATER
MB Lot-Sample #: A3F050000-266

Prep Date.....: 06/04/03
Analysis Date..: 06/04/03 **Prep Batch #...:** 3156266
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3E300288 **Work Order #...:** FP0221AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(78 - 115)
1,2-Dichloroethane-d4	109	(77 - 120)
Toluene-d8	90	(78 - 111)
4-Bromofluorobenzene	94	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3E300288 **Work Order #...:** FP4AV1AA **Matrix.....:** WATER
MB Lot-Sample #: A3F060000-392

Prep Date.....: 06/05/03
Analysis Date..: 06/05/03 **Prep Batch #...:** 3157392
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	**5.9**	**5.0**	**ug/L**	**SW846 8260B**
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3E300288 **Work Order #...:** FP4AV1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(78 - 115)
1,2-Dichloroethane-d4	109	(77 - 120)
Toluene-d8	89	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3E300288 **Work Order #...:** FP0221AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3F050000-266 FP0221AD-LCSD
Prep Date.....: 06/04/03 **Analysis Date..:** 06/04/03
Prep Batch #...: 3156266
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**95**	**(65 - 119)**			**SW846 8260B**
	89	**(65 - 119)**	**6.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**104**	**(80 - 122)**			**SW846 8260B**
	101	**(80 - 122)**	**3.0**	**(0-20)**	**SW846 8260B**
Benzene	**89**	**(79 - 116)**			**SW846 8260B**
	90	**(79 - 116)**	**1.2**	**(0-20)**	**SW846 8260B**
Toluene	**93**	**(76 - 119)**			**SW846 8260B**
	93	**(76 - 119)**	**0.62**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(81 - 115)**			**SW846 8260B**
	94	**(81 - 115)**	**1.4**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(78 - 115)
	96	(78 - 115)
1,2-Dichloroethane-d4	114	(77 - 120)
	112	(77 - 120)
Toluene-d8	90	(78 - 111)
	91	(78 - 111)
4-Bromofluorobenzene	96	(80 - 114)
	93	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3E300288 **Work Order #...:** FP4AV1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3F060000-392 FP4AV1AD-LCSD
Prep Date.....: 06/05/03 **Analysis Date..:** 06/05/03
Prep Batch #...: 3157392
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**101**	**(65 - 119)**			**SW846 8260B**
	96	**(65 - 119)**	**4.8**	**(0-20)**	**SW846 8260B**
Trichloroethene	**102**	**(80 - 122)**			**SW846 8260B**
	97	**(80 - 122)**	**4.6**	**(0-20)**	**SW846 8260B**
Benzene	**96**	**(79 - 116)**			**SW846 8260B**
	88	**(79 - 116)**	**9.2**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(76 - 119)**			**SW846 8260B**
	89	**(76 - 119)**	**6.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(81 - 115)**			**SW846 8260B**
	91	**(81 - 115)**	**7.3**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(78 - 115)
	97	(78 - 115)
1,2-Dichloroethane-d4	113	(77 - 120)
	106	(77 - 120)
Toluene-d8	92	(78 - 111)
	89	(78 - 111)
4-Bromofluorobenzene	95	(80 - 114)
	94	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3E300288 Work Order #...: FPNNE1AD-MS Matrix.....: WG
MS Lot-Sample #: A3E300288-001 FPNNE1AE-MSD
Date Sampled...: 05/28/03 15:55 Date Received..: 05/30/03
Prep Date.....: 06/05/03 Analysis Date..: 06/05/03
Prep Batch #...: 3157392
Dilution Factor: 50

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Trichloroethene	**87**	**(58 - 141)**			**SW846 8260B**
	65	**(58 - 141)**	**5.4**	**(0-17)**	**SW846 8260B**
Benzene	**94**	**(73 - 123)**			**SW846 8260B**
	91	**(73 - 123)**	**3.0**	**(0-11)**	**SW846 8260B**
Toluene	**97**	**(67 - 129)**			**SW846 8260B**
	91	**(67 - 129)**	**6.8**	**(0-14)**	**SW846 8260B**
Chlorobenzene	**99**	**(70 - 122)**			**SW846 8260B**
	94	**(70 - 122)**	**5.1**	**(0-14)**	**SW846 8260B**
1,1-Dichloroethene	**103**	**(57 - 138)**			**SW846 8260B**
	98	**(57 - 138)**	**5.0**	**(0-15)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(78 - 115)
	98	(78 - 115)
1,2-Dichloroethane-d4	103	(77 - 120)
	101	(77 - 120)
Toluene-d8	92	(78 - 111)
	91	(78 - 111)
4-Bromofluorobenzene	94	(80 - 114)
	94	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

19

Chain of Custody Record

SEVERN TRENT SERVICES

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: MACTEC, Inc	Project Manager: RHONDA QUINN	Date: 5/29/03	Chain of Custody Number: 157418
Address: 3200 TOWN POINT DR. Suite 100	Telephone Number (Area Code)/Fax Number: 770-421-3400	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Rodger TOTH	
Project Name and Location (State): THERMO KING, Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8260B	Special Instructions/ Conditions of Receipt
MW-19	5/28/03	1555		X						X			3	
MW-20	"	1845		X						X			3	
TRIP BLANK										X			1	
TEMP BLANK														

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [ ] Disposal By Lab [ ] Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [X] 7 Days [ ] 14 Days [ ] 21 Days [ ] Other _____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: S. Burden	5/29/03	1500	1. Received By: Anne S Anders	5/30/03	925
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3F170168

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FQM2H	001	MW-20 (12:10)	06/12/03	12:10
FQM2M	002	MW-20 (15:00)	06/12/03	15:00
FQM2N	003	MW-20 (17:30)	06/12/03	17:30
FQM2P	004	MW-5	06/12/03	20:00
FQM2Q	005	MW-14 (07:10)	06/13/03	07:10
FQM23	006	MW-14 (09:30)	06/13/03	09:30
FQM24	007	MW-14 (12:15)	06/13/03	12:15
FQM26	008	MW-19	06/13/03	10:45
FQM27	009	TRIP BLANK	06/13/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

TK LOUISVILLE/GA

Lot #: A3F170168

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

June 29, 2003

CASE NARRATIVE

A3F170168

The following report contains the analytical results for eight water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting from the TK Louisville/GA Site. The samples were received on June 17, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter listed on the Analytical Methods Summary page in accordance with the method indicated. Preliminary results were provided to Rhonda Quinn on June 24, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at the laboratory at a temperature of 1.9° C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001), New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024), Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3F170168

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-20 (12:10) 06/12/03 12:10 001				
cis-1,2-Dichloroethene	12	2.5	ug/L	SW846 8260B
Toluene	5.7	5.0	ug/L	SW846 8260B
MW-20 (15:00) 06/12/03 15:00 002				
cis-1,2-Dichloroethene	15	2.5	ug/L	SW846 8260B
MW-20 (17:30) 06/12/03 17:30 003				
cis-1,2-Dichloroethene	20	2.5	ug/L	SW846 8260B
MW-5 06/12/03 20:00 004				
cis-1,2-Dichloroethene	19	17	ug/L	SW846 8260B
1,1-Dichloroethene	65	33	ug/L	SW846 8260B
1,1,1-Trichloroethane	53	33	ug/L	SW846 8260B
Trichloroethene	1200	33	ug/L	SW846 8260B
MW-14 (07:10) 06/13/03 07:10 005				
cis-1,2-Dichloroethene	470	120	ug/L	SW846 8260B
Trichloroethene	7000	250	ug/L	SW846 8260B
MW-14 (09:30) 06/13/03 09:30 006				
cis-1,2-Dichloroethene	530	120	ug/L	SW846 8260B
Trichloroethene	7700	250	ug/L	SW846 8260B
MW-14 (12:15) 06/13/03 12:15 007				
cis-1,2-Dichloroethene	520	120	ug/L	SW846 8260B
Trichloroethene	7300	250	ug/L	SW846 8260B
MW-19 06/13/03 10:45 008				
Trichloroethene	12000	500	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3F170168

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20 (12:10)

GC/MS Volatiles

Lot-Sample #...: A3F170168-001 **Work Order #...:** FQM2H1AA **Matrix.....:** WG
Date Sampled...: 06/12/03 12:10 **Date Received..:** 06/17/03
Prep Date.....: 06/20/03 **Analysis Date..:** 06/20/03
Prep Batch #...: 3174112
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	**12**	**2.5**	**ug/L**
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	**5.7**	**5.0**	**ug/L**
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20 (12:10)

GC/MS Volatiles

Lot-Sample #...: A3F170168-001 **Work Order #...:** FQM2H1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	96	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20 (15:00)

GC/MS Volatiles

Lot-Sample #...: A3F170168-002 Work Order #...: FQM2M1AA Matrix.....: WG
Date Sampled...: 06/12/03 15:00 Date Received..: 06/17/03
Prep Date.....: 06/20/03 Analysis Date..: 06/20/03
Prep Batch #...: 3174112
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	**15**	**2.5**	**ug/L**
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20 (15:00)

GC/MS Volatiles

Lot-Sample #...: A3F170168-002 Work Order #...: FQM2M1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(78 - 115)
1,2-Dichloroethane-d4	96	(77 - 120)
Toluene-d8	103	(78 - 111)
4-Bromofluorobenzene	97	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20 (17:30)

GC/MS Volatiles

Lot-Sample #...: A3F170168-003 **Work Order #...:** FQM2N1AA **Matrix.....:** WG
Date Sampled...: 06/12/03 17:30 **Date Received..:** 06/17/03
Prep Date.....: 06/20/03 **Analysis Date..:** 06/20/03
Prep Batch #...: 3174112
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	**20**	**2.5**	**ug/L**
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20 (17:30)

GC/MS Volatiles

Lot-Sample #...: A3F170168-003 Work Order #...: FQM2N1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	101	(78 - 111)
4-Bromofluorobenzene	95	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A3F170168-004 Work Order #...: FQM2P1AA Matrix.....: WG
Date Sampled...: 06/12/03 20:00 Date Received..: 06/17/03
Prep Date.....: 06/20/03 Analysis Date..: 06/20/03
Prep Batch #...: 3174112
Dilution Factor: 6.67 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	33	ug/L
Bromoform	ND	33	ug/L
Bromomethane	ND	33	ug/L
Carbon tetrachloride	ND	33	ug/L
Chlorobenzene	ND	33	ug/L
Chlorodibromomethane	ND	33	ug/L
Chloroethane	ND	33	ug/L
Chloroform	ND	33	ug/L
Chloromethane	ND	33	ug/L
Dibromomethane	ND	33	ug/L
1,2-Dichlorobenzene	ND	33	ug/L
1,3-Dichlorobenzene	ND	33	ug/L
1,4-Dichlorobenzene	ND	33	ug/L
Dichlorodifluoromethane	ND	33	ug/L
1,1-Dichloroethane	ND	33	ug/L
1,2-Dichloroethane	ND	33	ug/L
cis-1,2-Dichloroethene	**19**	**17**	**ug/L**
trans-1,2-Dichloroethene	ND	17	ug/L
1,1-Dichloroethene	**65**	**33**	**ug/L**
1,2-Dichloropropane	ND	33	ug/L
1,3-Dichloropropane	ND	33	ug/L
2,2-Dichloropropane	ND	33	ug/L
1,1-Dichloropropene	ND	33	ug/L
1,4-Dioxane	ND	1300	ug/L
Ethylbenzene	ND	33	ug/L
Hexachlorobutadiene	ND	33	ug/L
Isopropylbenzene	ND	33	ug/L
Methylene chloride	ND	33	ug/L
Naphthalene	ND	33	ug/L
Styrene	ND	33	ug/L
1,1,1,2-Tetrachloroethane	ND	33	ug/L
1,1,2,2-Tetrachloroethane	ND	33	ug/L
Tetrachloroethene	ND	33	ug/L
Toluene	ND	33	ug/L
1,2,4-Trichloro-benzene	ND	33	ug/L
1,1,1-Trichloroethane	**53**	**33**	**ug/L**
1,1,2-Trichloroethane	ND	33	ug/L
Trichloroethene	**1200**	**33**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A3F170168-004 Work Order #...: FQM2P1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	33	ug/L
1,2,3-Trichloropropane	ND	33	ug/L
Vinyl chloride	ND	33	ug/L
Xylenes (total)	ND	33	ug/L
Bromodichloromethane	ND	33	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	96	(78 - 111)
4-Bromofluorobenzene	89	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 (07:10)

GC/MS Volatiles

Lot-Sample #...: A3F170168-005 Work Order #...: FQM2Q1AA Matrix.....: WG
Date Sampled...: 06/13/03 07:10 Date Received..: 06/17/03
Prep Date.....: 06/23/03 Analysis Date..: 06/23/03
Prep Batch #...: 3175139
Dilution Factor: 50 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	250	ug/L
Bromoform	ND	250	ug/L
Bromomethane	ND	250	ug/L
Carbon tetrachloride	ND	250	ug/L
Chlorobenzene	ND	250	ug/L
Chlorodibromomethane	ND	250	ug/L
Chloroethane	ND	250	ug/L
Chloroform	ND	250	ug/L
Chloromethane	ND	250	ug/L
Dibromomethane	ND	250	ug/L
1,2-Dichlorobenzene	ND	250	ug/L
1,3-Dichlorobenzene	ND	250	ug/L
1,4-Dichlorobenzene	ND	250	ug/L
Dichlorodifluoromethane	ND	250	ug/L
1,1-Dichloroethane	ND	250	ug/L
1,2-Dichloroethane	ND	250	ug/L
cis-1,2-Dichloroethene	**470**	**120**	**ug/L**
trans-1,2-Dichloroethene	ND	120	ug/L
1,1-Dichloroethene	ND	250	ug/L
1,2-Dichloropropane	ND	250	ug/L
1,3-Dichloropropane	ND	250	ug/L
2,2-Dichloropropane	ND	250	ug/L
1,1-Dichloropropene	ND	250	ug/L
1,4-Dioxane	ND	10000	ug/L
Ethylbenzene	ND	250	ug/L
Hexachlorobutadiene	ND	250	ug/L
Isopropylbenzene	ND	250	ug/L
Methylene chloride	ND	250	ug/L
Naphthalene	ND	250	ug/L
Styrene	ND	250	ug/L
1,1,1,2-Tetrachloroethane	ND	250	ug/L
Tetrachloroethene	ND	250	ug/L
Toluene	ND	250	ug/L
1,2,4-Trichloro-benzene	ND	250	ug/L
1,1,1-Trichloroethane	ND	250	ug/L
1,1,2-Trichloroethane	ND	250	ug/L
Trichloroethene	**7000**	**250**	**ug/L**
Trichlorofluoromethane	ND	250	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 (07:10)

GC/MS Volatiles

Lot-Sample #...: A3F170168-005 Work Order #...: FQM2Q1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2,3-Trichloropropane	ND	250	ug/L
Vinyl chloride	ND	250	ug/L
Xylenes (total)	ND	250	ug/L
Bromodichloromethane	ND	250	ug/L
1,1,2,2-Tetrachloroethane	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(78 - 115)
1,2-Dichloroethane-d4	94	(77 - 120)
Toluene-d8	101	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 (09:30)

GC/MS Volatiles

Lot-Sample #...: A3F170168-006	**Work Order #...:** FQM231AA	**Matrix.....:** WG	
Date Sampled...: 06/13/03 09:30	**Date Received..:** 06/17/03		
Prep Date.....: 06/23/03	**Analysis Date..:** 06/23/03		
Prep Batch #...: 3175139			
Dilution Factor: 50	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	250	ug/L
Bromoform	ND	250	ug/L
Bromomethane	ND	250	ug/L
Carbon tetrachloride	ND	250	ug/L
Chlorobenzene	ND	250	ug/L
Chlorodibromomethane	ND	250	ug/L
Chloroethane	ND	250	ug/L
Chloroform	ND	250	ug/L
Chloromethane	ND	250	ug/L
Dibromomethane	ND	250	ug/L
1,2-Dichlorobenzene	ND	250	ug/L
1,3-Dichlorobenzene	ND	250	ug/L
1,4-Dichlorobenzene	ND	250	ug/L
Dichlorodifluoromethane	ND	250	ug/L
1,1-Dichloroethane	ND	250	ug/L
1,2-Dichloroethane	ND	250	ug/L
cis-1,2-Dichloroethene	**530**	**120**	**ug/L**
trans-1,2-Dichloroethene	ND	120	ug/L
1,1-Dichloroethene	ND	250	ug/L
1,2-Dichloropropane	ND	250	ug/L
1,3-Dichloropropane	ND	250	ug/L
2,2-Dichloropropane	ND	250	ug/L
1,1-Dichloropropene	ND	250	ug/L
1,4-Dioxane	ND	10000	ug/L
Ethylbenzene	ND	250	ug/L
Hexachlorobutadiene	ND	250	ug/L
Isopropylbenzene	ND	250	ug/L
Methylene chloride	ND	250	ug/L
Naphthalene	ND	250	ug/L
Styrene	ND	250	ug/L
1,1,1,2-Tetrachloroethane	ND	250	ug/L
1,1,2,2-Tetrachloroethane	ND	250	ug/L
Tetrachloroethene	ND	250	ug/L
Toluene	ND	250	ug/L
1,2,4-Trichloro-benzene	ND	250	ug/L
1,1,1-Trichloroethane	ND	250	ug/L
1,1,2-Trichloroethane	ND	250	ug/L
Trichloroethene	**7700**	**250**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 (09:30)

GC/MS Volatiles

Lot-Sample #...: A3F170168-006 Work Order #...: FQM231AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	250	ug/L
1,2,3-Trichloropropane	ND	250	ug/L
Vinyl chloride	ND	250	ug/L
Xylenes (total)	ND	250	ug/L
Bromodichloromethane	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	99	(78 - 111)
4-Bromofluorobenzene	89	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 (12:15)

GC/MS Volatiles

Lot-Sample #...: A3F170168-007 Work Order #...: FQM241AA Matrix.....: WG
Date Sampled...: 06/13/03 12:15 Date Received..: 06/17/03
Prep Date.....: 06/23/03 Analysis Date..: 06/23/03
Prep Batch #...: 3175139
Dilution Factor: 50 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	250	ug/L
Bromoform	ND	250	ug/L
Bromomethane	ND	250	ug/L
Carbon tetrachloride	ND	250	ug/L
Chlorobenzene	ND	250	ug/L
Chlorodibromomethane	ND	250	ug/L
Chloroethane	ND	250	ug/L
Chloroform	ND	250	ug/L
Chloromethane	ND	250	ug/L
Dibromomethane	ND	250	ug/L
1,2-Dichlorobenzene	ND	250	ug/L
1,3-Dichlorobenzene	ND	250	ug/L
1,4-Dichlorobenzene	ND	250	ug/L
Dichlorodifluoromethane	ND	250	ug/L
1,1-Dichloroethane	ND	250	ug/L
1,2-Dichloroethane	ND	250	ug/L
cis-1,2-Dichloroethene	**520**	**120**	**ug/L**
trans-1,2-Dichloroethene	ND	120	ug/L
1,1-Dichloroethene	ND	250	ug/L
1,2-Dichloropropane	ND	250	ug/L
1,3-Dichloropropane	ND	250	ug/L
2,2-Dichloropropane	ND	250	ug/L
1,1-Dichloropropene	ND	250	ug/L
1,4-Dioxane	ND	10000	ug/L
Ethylbenzene	ND	250	ug/L
Hexachlorobutadiene	ND	250	ug/L
Isopropylbenzene	ND	250	ug/L
Methylene chloride	ND	250	ug/L
Naphthalene	ND	250	ug/L
Styrene	ND	250	ug/L
1,1,1,2-Tetrachloroethane	ND	250	ug/L
1,1,2,2-Tetrachloroethane	ND	250	ug/L
Tetrachloroethene	ND	250	ug/L
Toluene	ND	250	ug/L
1,2,4-Trichloro-benzene	ND	250	ug/L
1,1,1-Trichloroethane	ND	250	ug/L
1,1,2-Trichloroethane	ND	250	ug/L
Trichloroethene	**7300**	**250**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14 (12:15)

GC/MS Volatiles

Lot-Sample #...: A3F170168-007 Work Order #...: FQM241AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	250	ug/L
1,2,3-Trichloropropane	ND	250	ug/L
Vinyl chloride	ND	250	ug/L
Xylenes (total)	ND	250	ug/L
Bromodichloromethane	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(78 - 115)
1,2-Dichloroethane-d4	90	(77 - 120)
Toluene-d8	99	(78 - 111)
4-Bromofluorobenzene	86	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

GC/MS Volatiles

Lot-Sample #...: A3F170168-008 Work Order #...: FQM261AA Matrix.....: WG
Date Sampled...: 06/13/03 10:45 Date Received..: 06/17/03
Prep Date.....: 06/23/03 Analysis Date..: 06/23/03
Prep Batch #...: 3175139
Dilution Factor: 100 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	500	ug/L
Bromoform	ND	500	ug/L
Bromomethane	ND	500	ug/L
Carbon tetrachloride	ND	500	ug/L
Chlorobenzene	ND	500	ug/L
Chlorodibromomethane	ND	500	ug/L
Chloroethane	ND	500	ug/L
Chloroform	ND	500	ug/L
Chloromethane	ND	500	ug/L
Dibromomethane	ND	500	ug/L
1,2-Dichlorobenzene	ND	500	ug/L
1,3-Dichlorobenzene	ND	500	ug/L
1,4-Dichlorobenzene	ND	500	ug/L
Dichlorodifluoromethane	ND	500	ug/L
1,1-Dichloroethane	ND	500	ug/L
1,2-Dichloroethane	ND	500	ug/L
cis-1,2-Dichloroethene	ND	250	ug/L
trans-1,2-Dichloroethene	ND	250	ug/L
1,1-Dichloroethene	ND	500	ug/L
1,2-Dichloropropane	ND	500	ug/L
1,3-Dichloropropane	ND	500	ug/L
2,2-Dichloropropane	ND	500	ug/L
1,1-Dichloropropene	ND	500	ug/L
1,4-Dioxane	ND	20000	ug/L
Ethylbenzene	ND	500	ug/L
Hexachlorobutadiene	ND	500	ug/L
Isopropylbenzene	ND	500	ug/L
Methylene chloride	ND	500	ug/L
Naphthalene	ND	500	ug/L
Styrene	ND	500	ug/L
1,1,1,2-Tetrachloroethane	ND	500	ug/L
1,1,2,2-Tetrachloroethane	ND	500	ug/L
Tetrachloroethene	ND	500	ug/L
Toluene	ND	500	ug/L
1,2,4-Trichloro-benzene	ND	500	ug/L
1,1,1-Trichloroethane	ND	500	ug/L
1,1,2-Trichloroethane	ND	500	ug/L
Trichloroethene	**12000**	**500**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

GC/MS Volatiles

Lot-Sample #...: A3F170168-008 Work Order #...: FQM261AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	500	ug/L
1,2,3-Trichloropropane	ND	500	ug/L
Vinyl chloride	ND	500	ug/L
Xylenes (total)	ND	500	ug/L
Bromodichloromethane	ND	500	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(78 - 115)
1,2-Dichloroethane-d4	90	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	87	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3F170168-009 Work Order #...: FQM271AA Matrix.....: WQ
Date Sampled...: 06/13/03 Date Received..: 06/17/03
Prep Date.....: 06/20/03 Analysis Date..: 06/20/03
Prep Batch #...: 3174112
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3F170168-009 Work Order #...: FQM271AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(78 - 115)
1,2-Dichloroethane-d4	95	(77 - 120)
Toluene-d8	98	(78 - 111)
4-Bromofluorobenzene	95	(80 - 114)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3F170168 **Work Order #...:** FQ1081AA **Matrix.....:** WATER
MB Lot-Sample #: A3F230000-112

Prep Date.....: 06/20/03
Analysis Date..: 06/20/03 **Prep Batch #...:** 3174112
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3F170168 **Work Order #...:** FQ1081AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(78 - 115)
1,2-Dichloroethane-d4	95	(77 - 120)
Toluene-d8	104	(78 - 111)
4-Bromofluorobenzene	99	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3F170168 **Work Order #...:** FQ3A51AA **Matrix.....:** WATER
MB Lot-Sample #: A3F240000-139

Prep Date.....: 06/23/03
Analysis Date..: 06/23/03 **Prep Batch #...:** 3175139
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3F170168 **Work Order #...:** FQ3A51AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(78 - 115)
1,2-Dichloroethane-d4	91	(77 - 120)
Toluene-d8	95	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3F170168 **Work Order #...:** FQ1081AC **Matrix.....:** WATER
LCS Lot-Sample#: A3F230000-112
Prep Date.....: 06/20/03 **Analysis Date..:** 06/20/03
Prep Batch #...: 3174112
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**92**	**(65 - 119)**	**SW846 8260B**
Trichloroethene	**97**	**(80 - 122)**	**SW846 8260B**
Benzene	**97**	**(79 - 116)**	**SW846 8260B**
Toluene	**96**	**(76 - 119)**	**SW846 8260B**
Chlorobenzene	**96**	**(81 - 115)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(78 - 115)
1,2-Dichloroethane-d4	90	(77 - 120)
Toluene-d8	98	(78 - 111)
4-Bromofluorobenzene	99	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3F170168 **Work Order #...:** FQ3A51AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3F240000-139 FQ3A51AD-LCSD
Prep Date.....: 06/23/03 **Analysis Date..:** 06/23/03
Prep Batch #...: 3175139
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**86**	**(65 - 119)**			**SW846 8260B**
	91	**(65 - 119)**	**6.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**92**	**(80 - 122)**			**SW846 8260B**
	94	**(80 - 122)**	**2.4**	**(0-20)**	**SW846 8260B**
Benzene	**92**	**(79 - 116)**			**SW846 8260B**
	95	**(79 - 116)**	**3.2**	**(0-20)**	**SW846 8260B**
Toluene	**92**	**(76 - 119)**			**SW846 8260B**
	94	**(76 - 119)**	**1.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**90**	**(81 - 115)**			**SW846 8260B**
	92	**(81 - 115)**	**2.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(78 - 115)
	91	(78 - 115)
1,2-Dichloroethane-d4	94	(77 - 120)
	89	(77 - 120)
Toluene-d8	100	(78 - 111)
	96	(78 - 111)
4-Bromofluorobenzene	99	(80 - 114)
	96	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3F170168 **Work Order #...:** FQM2M1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A3F170168-002 FQM2M1AD-MSD
Date Sampled...: 06/12/03 15:00 **Date Received..:** 06/17/03
Prep Date.....: 06/20/03 **Analysis Date..:** 06/20/03
Prep Batch #...: 3174112
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**97**	**(57 - 138)**			**SW846 8260B**
	99	**(57 - 138)**	**1.4**	**(0-15)**	**SW846 8260B**
Trichloroethene	**97**	**(58 - 141)**			**SW846 8260B**
	100	**(58 - 141)**	**2.9**	**(0-17)**	**SW846 8260B**
Benzene	**101**	**(73 - 123)**			**SW846 8260B**
	102	**(73 - 123)**	**0.79**	**(0-11)**	**SW846 8260B**
Toluene	**100**	**(67 - 129)**			**SW846 8260B**
	101	**(67 - 129)**	**0.55**	**(0-14)**	**SW846 8260B**
Chlorobenzene	**100**	**(70 - 122)**			**SW846 8260B**
	99	**(70 - 122)**	**0.90**	**(0-14)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(78 - 115)
	97	(78 - 115)
1,2-Dichloroethane-d4	97	(77 - 120)
	95	(77 - 120)
Toluene-d8	103	(78 - 111)
	102	(78 - 111)
4-Bromofluorobenzene	103	(80 - 114)
	101	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client: MacTec, Inc.	Project Manager: Rhonda Quinn	Date: 6/16/03	Chain of Custody Number: 153005
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Bob Seymour	Lab Contact: Roger Toth	
Project Name and Location (State): TK Louisville / GA	Carrier/Waybill Number: Fed Ex: 836397950080		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOC/8260B	Special Instructions/ Conditions of Receipt
MW-20 (12:10)	6/12/03	12:10		X						3			3	For questions
MW-20 (15:00)	6/12	15:00		X						3			3	call Rhonda
MW-20 (17:30)	6/12	17:30		X						3			3	Quinn or Dave
MW-5	6/12	20:00		X						3			3	Alcott at
MW-14 (07:10)	6/13	07:10		X						3			3	(770) 421-3400
MW-14 (09:30)	6/13	09:30		X						3			3	
MW-14 (12:15)	6/13	12:15		X						3			3	
MW-19	6/13	10:45		X						3			3	
Trip Blank	~~6/13~~	—		X						2			2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☒ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: R.A. Seymour To: Fed Ex	Date: 6/16/03	Time: 15:00	1. Received By: JJ Williams	Date: 6/17/03	Time: 10:05
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report: CANARY - Stays with the Sample: PINK - Field Copy

SAMPLE SUMMARY

A3I110165

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FX34E	001	MW-21	09/10/03	10:45
FX34F	002	DUP-1	09/10/03	12:00
FX34P	003	TRIP BLANK	09/10/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING LOUISVILLE

Lot #: A3I110165

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

September 30, 2003

CASE NARRATIVE

A3I110165

The following report contains the analytical results for two water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the Thermo King Louisville Site. The samples were received September 11, 2003, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on September 22, 2003. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data reported herein. All analyses were performed using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 0.9°C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3I110165

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

ANALYTICAL METHODS SUMMARY

A3I110165

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21

GC/MS Volatiles

Lot-Sample #...: A3I110165-001 Work Order #...: FX34E1AA Matrix.....: WG
Date Sampled...: 09/10/03 10:45 Date Received..: 09/11/03
Prep Date.....: 09/17/03 Analysis Date..: 09/17/03
Prep Batch #...: 3261519
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21

GC/MS Volatiles

Lot-Sample #...: A3I110165-001 Work Order #...: FX34E1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	93	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: DUP-1

GC/MS Volatiles

Lot-Sample #...: A3I110165-002 Work Order #...: FX34F1AA Matrix.....: WQ
Date Sampled...: 09/10/03 12:00 Date Received..: 09/11/03
Prep Date.....: 09/17/03 Analysis Date..: 09/17/03
Prep Batch #...: 3261519
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: DUP-1

GC/MS Volatiles

Lot-Sample #...: A3I110165-002 Work Order #...: FX34F1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(78 - 115)
1,2-Dichloroethane-d4	94	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	93	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3I110165-003 Work Order #...: FX34P1AA Matrix.....: WQ
Date Sampled...: 09/10/03 Date Received..: 09/11/03
Prep Date.....: 09/17/03 Analysis Date..: 09/17/03
Prep Batch #...: 3261519
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3I110165-003 Work Order #...: FX34P1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	87	(80 - 114)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3I110165 Work Order #...: F0MLW1AA Matrix.....: WATER
MB Lot-Sample #: A3I180000-519

Prep Date.....: 09/17/03
Analysis Date..: 09/17/03 Prep Batch #...: 3261519
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3I110165 Work Order #...: F0MLW1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	94	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3I110165 Work Order #...: F0MLW1AC Matrix.....: WATER
LCS Lot-Sample#: A3I180000-519
Prep Date.....: 09/17/03 Analysis Date..: 09/17/03
Prep Batch #...: 3261519
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**94**	**(65 - 119)**	**SW846 8260B**
Trichloroethene	**94**	**(80 - 122)**	**SW846 8260B**
Benzene	**96**	**(79 - 116)**	**SW846 8260B**
Toluene	**95**	**(76 - 119)**	**SW846 8260B**
Chlorobenzene	**93**	**(81 - 115)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	99	(78 - 111)
4-Bromofluorobenzene	94	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3I110165 Work Order #...: F0AAV1AH-MS Matrix.....: WATER
MS Lot-Sample #: A3I130142-001 F0AAV1AJ-MSD
Date Sampled...: 09/12/03 09:40 Date Received..: 09/13/03
Prep Date.....: 09/17/03 Analysis Date..: 09/17/03
Prep Batch #...: 3261519
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	92	(57 - 138)			SW846 8260B
	96	(57 - 138)	4.5	(0-15)	SW846 8260B
Trichloroethene	91	(58 - 141)			SW846 8260B
	94	(58 - 141)	3.2	(0-17)	SW846 8260B
Benzene	97	(73 - 123)			SW846 8260B
	97	(73 - 123)	0.26	(0-11)	SW846 8260B
Toluene	96	(67 - 129)			SW846 8260B
	94	(67 - 129)	1.5	(0-14)	SW846 8260B
Chlorobenzene	94	(70 - 122)			SW846 8260B
	91	(70 - 122)	3.2	(0-14)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(78 - 115)
	96	(78 - 115)
1,2-Dichloroethane-d4	95	(77 - 120)
	97	(77 - 120)
Toluene-d8	98	(78 - 111)
	99	(78 - 111)
4-Bromofluorobenzene	95	(80 - 114)
	93	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MACTEC, INC	Rhonda Quinn	9/10/03	115891
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr Suite 100	770-421-3400 / 770-421-3486		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Stacy Dorden	Rodger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
Thermo King Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260	Special Instructions/ Conditions of Receipt
MW-21	9/10/03	1045		X						X			X3	
MW-22	↓	1245		X						X			3	
DUP-1	↓	1200		X						X			3	
TRIP BLANK													1	
TEMP BLANK													1	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required STAT

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	[signature]	9/10/03	1500	Anne Sanders	9-11-03	0935
2.						
3.						

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3I110164

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FX338	001	MW-22	09/10/03	12:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

THERMO KING LOUISVILLE

Lot #: A3I110164

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

September 24, 2003

CASE NARRATIVE

A3I110164

The following report contains the analytical results for one water sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the Thermo King Louisville Site. The sample was received September 11, 2003, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on September 16, 2003, and September 19, 2003. A summary of QC data for these analyses is included at the back of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to compliant with laboratory protocol.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 0.9°C.

GC/MS VOLATILES

The reporting limit for vinyl chloride was lower than our standard reporting limit (SRL) but was supported by the laboratory's MDL. However, there was no standard in the calibration curve low enough to support this value. The continuing calibration blanks and method blanks may not support the lower RL.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3I110164

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

ANALYTICAL METHODS SUMMARY

A3I110164

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22

GC/MS Volatiles

Lot-Sample #...: A3I110164-001 **Work Order #...:** FX3381AA **Matrix.....:** WG
Date Sampled...: 09/10/03 12:45 **Date Received..:** 09/11/03
Prep Date.....: 09/15/03 **Analysis Date..:** 09/15/03
Prep Batch #...: 3259174
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichlorobenzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22

GC/MS Volatiles

Lot-Sample #...: A3I110164-001 Work Order #...: FX3381AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(78 - 115)
1,2-Dichloroethane-d4	102	(77 - 120)
Toluene-d8	103	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3I110164 **Work Order #...:** F0D471AA **Matrix.....:** WATER
MB Lot-Sample #: A3I160000-174

Prep Date.....: 09/15/03
Analysis Date..: 09/15/03 **Prep Batch #...:** 3259174
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3I110164 **Work Order #...:** F0D471AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(78 - 115)
1,2-Dichloroethane-d4	102	(77 - 120)
Toluene-d8	101	(78 - 111)
4-Bromofluorobenzene	92	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3I110164 **Work Order #...:** F0D471AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3I160000-174 F0D471AD-LCSD
Prep Date.....: 09/15/03 **Analysis Date..:** 09/15/03
Prep Batch #...: 3259174
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**110**	**(65 - 119)**			**SW846 8260B**
	110	**(65 - 119)**	**0.44**	**(0-20)**	**SW846 8260B**
Trichloroethene	**107**	**(80 - 122)**			**SW846 8260B**
	107	**(80 - 122)**	**0.17**	**(0-20)**	**SW846 8260B**
Benzene	**104**	**(79 - 116)**			**SW846 8260B**
	105	**(79 - 116)**	**0.90**	**(0-20)**	**SW846 8260B**
Toluene	**104**	**(76 - 119)**			**SW846 8260B**
	105	**(76 - 119)**	**0.79**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**104**	**(81 - 115)**			**SW846 8260B**
	105	**(81 - 115)**	**0.92**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(78 - 115)
	98	(78 - 115)
1,2-Dichloroethane-d4	104	(77 - 120)
	103	(77 - 120)
Toluene-d8	103	(78 - 111)
	104	(78 - 111)
4-Bromofluorobenzene	100	(80 - 114)
	99	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3I110164 **Work Order #...:** FX3381AC-MS **Matrix.....:** WG
MS Lot-Sample #: A3I110164-001 FX3381AD-MSD
Date Sampled...: 09/10/03 12:45 **Date Received..:** 09/11/03
Prep Date.....: 09/15/03 **Analysis Date..:** 09/15/03
Prep Batch #...: 3259174
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**103**	**(57 - 138)**			**SW846 8260B**
	105	**(57 - 138)**	**2.0**	**(0-15)**	**SW846 8260B**
Trichloroethene	**101**	**(58 - 141)**			**SW846 8260B**
	105	**(58 - 141)**	**3.7**	**(0-17)**	**SW846 8260B**
Benzene	**101**	**(73 - 123)**			**SW846 8260B**
	104	**(73 - 123)**	**3.6**	**(0-11)**	**SW846 8260B**
Toluene	**98**	**(67 - 129)**			**SW846 8260B**
	102	**(67 - 129)**	**3.8**	**(0-14)**	**SW846 8260B**
Chlorobenzene	**98**	**(70 - 122)**			**SW846 8260B**
	103	**(70 - 122)**	**5.1**	**(0-14)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(78 - 115)
	99	(78 - 115)
1,2-Dichloroethane-d4	99	(77 - 120)
	109	(77 - 120)
Toluene-d8	98	(78 - 111)
	105	(78 - 111)
4-Bromofluorobenzene	93	(80 - 114)
	96	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

14

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MACTEC, INC	Rhonda Quinn	9/10/03	115891
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
3200 Town Point Dr Suite 100	770-421-3400 / 770-421-3486		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144	Stacy Dorden	Rodger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
Thermo King Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260	Special Instructions/ Conditions of Receipt
MW-21	9/10/03	1045		X						X			3	
MW-22		1245		X						X			3	
DUP-1		1200		X						X			3	
TRIP BLANK													1	
TEMP BLANK													1	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required STAT

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: S. Dorden	9/10/03	1500	1. Received By: Anne Sanders	9-11-03	935
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A3I120160

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FX7C7	001	MW-23	09/11/03	10:45
FX7C8	002	TRIP BLANK	09/11/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

THERMO KING LOUISVILLE

Lot #: A3I120160

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

October 1, 2003

CASE NARRATIVE

A3I120160

The following report contains the analytical results for one water sample and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the Thermo King Louisville Site. The samples were received September 12, 2003, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on September 22, 2003. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data reported herein. All analyses were performed using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.9°C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A3I120160

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

ANALYTICAL METHODS SUMMARY

A3I120160

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23

GC/MS Volatiles

Lot-Sample #...: A3I120160-001 Work Order #...: FX7C71AA Matrix.....: WG
Date Sampled...: 09/11/03 10:45 Date Received..: 09/12/03
Prep Date.....: 09/17/03 Analysis Date..: 09/17/03
Prep Batch #...: 3261519
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23

GC/MS Volatiles

Lot-Sample #...: A3I120160-001 Work Order #...: FX7C71AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(78 - 115)
1,2-Dichloroethane-d4	94	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3I120160-002 Work Order #...: FX7C81AA Matrix.....: WQ
Date Sampled...: 09/11/03 Date Received..: 09/12/03
Prep Date.....: 09/17/03 Analysis Date..: 09/17/03
Prep Batch #...: 3261519
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3I120160-002 Work Order #...: FX7C81AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(78 - 115)
1,2-Dichloroethane-d4	96	(77 - 120)
Toluene-d8	98	(78 - 111)
4-Bromofluorobenzene	94	(80 - 114)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3I120160 **Work Order #...:** F0MLW1AA **Matrix.....:** WATER
MB Lot-Sample #: A3I180000-519

Prep Date.....: 09/17/03
Analysis Date..: 09/17/03 **Prep Batch #...:** 3261519
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3I120160 Work Order #...: F0MLW1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	94	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3I120160
LCS Lot-Sample#: A3I180000-519
Prep Date.....: 09/17/03
Prep Batch #...: 3261519
Dilution Factor: 1

Work Order #...: F0MLW1AC
Analysis Date..: 09/17/03

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	94	(65 - 119)	SW846 8260B
Trichloroethene	94	(80 - 122)	SW846 8260B
Benzene	96	(79 - 116)	SW846 8260B
Toluene	95	(76 - 119)	SW846 8260B
Chlorobenzene	93	(81 - 115)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(78 - 115)
1,2-Dichloroethane-d4	93	(77 - 120)
Toluene-d8	99	(78 - 111)
4-Bromofluorobenzene	94	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3I120160
MS Lot-Sample #: A3I130142-001
Date Sampled...: 09/12/03 09:40
Prep Date.....: 09/17/03
Prep Batch #...: 3261519
Dilution Factor: 1

Work Order #...: F0AAV1AH-MS
F0AAV1AJ-MSD
Date Received..: 09/13/03
Analysis Date..: 09/17/03

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	92	(57 - 138)			SW846 8260B
	96	(57 - 138)	4.5	(0-15)	SW846 8260B
Trichloroethene	91	(58 - 141)			SW846 8260B
	94	(58 - 141)	3.2	(0-17)	SW846 8260B
Benzene	97	(73 - 123)			SW846 8260B
	97	(73 - 123)	0.26	(0-11)	SW846 8260B
Toluene	96	(67 - 129)			SW846 8260B
	94	(67 - 129)	1.5	(0-14)	SW846 8260B
Chlorobenzene	94	(70 - 122)			SW846 8260B
	91	(70 - 122)	3.2	(0-14)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(78 - 115)
	96	(78 - 115)
1,2-Dichloroethane-d4	95	(77 - 120)
	97	(77 - 120)
Toluene-d8	98	(78 - 111)
	99	(78 - 111)
4-Bromofluorobenzene	95	(80 - 114)
	93	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

[redacted]

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

16

STL-4124 (0901)

Client: MACTEC ENGINEERING	Project Manager: RHONDA QUINN	Date: 9/10/03	Chain of Custody Number: 115890
Address: 3200 TOWN POINT DR. SUITE 100	Telephone Number (Area Code)/Fax Number: 770-421-3400/770-421-3486	Lab Number:	Page 1 of 1
City: KENNESAW; State: GA; Zip Code: 30144	Site Contact: STACY DURDEN; Lab Contact: Roger Toth		
Project Name and Location (State): THERMOKING LOUISVILLE	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOCs 8260	Special Instructions/ Conditions of Receipt
MW-23	9/11/03	1645		X						X			3	
1 TRIP BLANK													1	
TEMP BLANK													1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☒ 7 Days (S.T.A.T.) ☒ 14 Days (CC) ☐ 21 Days ☐ Other _____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Charlotte Clark	9-11-03		1. Received By: [signature]	9-12-03	905
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A4E060342

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GFN64	001	MW-17-A	05/04/04	16:30
GFN69	002	MW-17-B	05/04/04	16:40
GFN7A	003	MW-17-C	05/04/04	16:45
GFN7C	004	MW-18-A	05/04/04	17:00
GFN7D	005	MW-18-B	05/04/04	17:10
GFN7G	006	MW-18-C	05/04/04	17:20
GFN7H	007	MW-19-A	05/05/04	08:55
GFN7L	008	MW-19-B	05/05/04	09:10
GFN7N	009	DUP-V504-A	05/05/04	12:00
GFN7Q	010	DUP-V504-B	05/05/04	12:00
GFN7V	011	MW-14-A	05/05/04	09:50
GFN7X	012	MW-14-B	05/05/04	09:55
GFN72	013	MW-14-C	05/05/04	10:00
GFN75	014	MW-1-A	05/05/04	13:05
GFN76	015	MW-19	05/05/04	10:30
GFN8K	016	MW-1	05/05/04	15:20
GFN8M	017	MW-22-A	05/05/04	14:40
GFN8R	018	MW-22-B	05/05/04	15:00
GFN8T	019	MW-22-C	05/05/04	15:05
GFN8V	020	MW-2-A	05/05/04	16:30
GFN8X	021	MW-23-A	05/05/04	16:00
GFN80	022	MW-23-B	05/05/04	16:05
GFN81	023	MW-23-C	05/05/04	16:10

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK LOUISVILLE

Lot #: A4E060342

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

May 21, 2004

CASE NARRATIVE

A4E060342

The following report contains the analytical results for twenty-three water samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK Louisville Site, project number 12000-0-2050. The samples were received May 06, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on May 18, 2004, and May 19, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.0°C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

METALS

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A4E060342

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-19-A 05/05/04 08:55 007				
Trichloroethene	20000	1200	ug/L	SW846 8260B
MW-19-B 05/05/04 09:10 008				
Trichloroethene	19000	1200	ug/L	SW846 8260B
DUP-V504-A 05/05/04 12:00 009				
Trichloroethene	19000	6200	ug/L	SW846 8260B
DUP-V504-B 05/05/04 12:00 010				
Trichloroethene	19000	6200	ug/L	SW846 8260B
MW-14-A 05/05/04 09:50 011				
cis-1,2-Dichloroethene	500	200	ug/L	SW846 8260B
Trichloroethene	6800	200	ug/L	SW846 8260B
MW-14-B 05/05/04 09:55 012				
cis-1,2-Dichloroethene	450	250	ug/L	SW846 8260B
Trichloroethene	6600	250	ug/L	SW846 8260B
MW-14-C 05/05/04 10:00 013				
cis-1,2-Dichloroethene	450	200	ug/L	SW846 8260B
Trichloroethene	6100	200	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A4E060342

PARAMETER	ANALYTICAL METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-001 Work Order #...: GFN641AA Matrix.....: WG
Date Sampled...: 05/04/04 16:30 Date Received..: 05/06/04
Prep Date.....: 05/13/04 Analysis Date..: 05/13/04
Prep Batch #...: 4135173
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-001 Work Order #...: GFN641AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-002 Work Order #...: GFN691AA Matrix.....: WG
Date Sampled...: 05/04/04 16:40 Date Received..: 05/06/04
Prep Date.....: 05/13/04 Analysis Date..: 05/13/04
Prep Batch #...: 4135173
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-002 Work Order #...: GFN691AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-003 Work Order #...: GFN7A1AA Matrix.....: WG
Date Sampled...: 05/04/04 16:45 Date Received..: 05/06/04
Prep Date.....: 05/13/04 Analysis Date..: 05/13/04
Prep Batch #...: 4135173
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-003 **Work Order #...:** GFN7A1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	110	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-004 Work Order #...: GFN7C1AA Matrix.....: WG
Date Sampled...: 05/04/04 17:00 Date Received..: 05/06/04
Prep Date.....: 05/13/04 Analysis Date..: 05/13/04
Prep Batch #...: 4135173
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-004 Work Order #...: GFN7C1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	110	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-005 Work Order #...: GFN7D1AA Matrix.....: WG
Date Sampled...: 05/04/04 17:10 Date Received..: 05/06/04
Prep Date.....: 05/13/04 Analysis Date..: 05/13/04
Prep Batch #...: 4135173
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-005 Work Order #...: GFN7D1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-006 Work Order #...: GFN7G1AA Matrix.....: WG
Date Sampled...: 05/04/04 17:20 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4137032
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-006 Work Order #...: GFN7G1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(73 - 122)
1,2-Dichloroethane-d4	84	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	74	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-007 Work Order #...: GFN7H1AA Matrix.....: WG
Date Sampled...: 05/05/04 08:55 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4137032
Dilution Factor: 1250 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1200	ug/L
Bromodichloromethane	ND	1200	ug/L
Bromoform	ND	1200	ug/L
Bromomethane	ND	1200	ug/L
Carbon tetrachloride	ND	1200	ug/L
Chlorobenzene	ND	1200	ug/L
Chlorodibromomethane	ND	1200	ug/L
Chloroethane	ND	1200	ug/L
Chloroform	ND	1200	ug/L
Chloromethane	ND	1200	ug/L
Dibromomethane	ND	1200	ug/L
1,2-Dichlorobenzene	ND	1200	ug/L
1,3-Dichlorobenzene	ND	1200	ug/L
1,4-Dichlorobenzene	ND	1200	ug/L
Dichlorodifluoromethane	ND	1200	ug/L
1,1-Dichloroethane	ND	1200	ug/L
1,2-Dichloroethane	ND	1200	ug/L
1,1-Dichloroethene	ND	1200	ug/L
cis-1,2-Dichloroethene	ND	1200	ug/L
trans-1,2-Dichloroethene	ND	1200	ug/L
1,2-Dichloropropane	ND	1200	ug/L
1,3-Dichloropropane	ND	1200	ug/L
2,2-Dichloropropane	ND	1200	ug/L
1,1-Dichloropropene	ND	1200	ug/L
1,4-Dioxane	ND	62000	ug/L
Ethylbenzene	ND	1200	ug/L
Trichlorofluoromethane	ND	1200	ug/L
Hexachlorobutadiene	ND	1200	ug/L
Isopropylbenzene	ND	1200	ug/L
Methylene chloride	ND	1200	ug/L
Naphthalene	ND	1200	ug/L
Styrene	ND	1200	ug/L
1,1,1,2-Tetrachloroethane	ND	1200	ug/L
1,1,2,2-Tetrachloroethane	ND	1200	ug/L
Tetrachloroethene	ND	1200	ug/L
Toluene	ND	1200	ug/L
1,2,4-Trichloro-benzene	ND	1200	ug/L
1,1,1-Trichloroethane	ND	1200	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-007 Work Order #...: GFN7H1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1200	ug/L
Trichloroethene	**20000**	**1200**	**ug/L**
1,2,3-Trichloropropane	ND	1200	ug/L
Vinyl chloride	ND	1200	ug/L
Xylenes (total)	ND	1200	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	74	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-008 **Work Order #...:** GFN7L1AA **Matrix.....:** WG
Date Sampled...: 05/05/04 09:10 **Date Received..:** 05/06/04
Prep Date.....: 05/14/04 **Analysis Date..:** 05/14/04
Prep Batch #...: 4137032
Dilution Factor: 1250 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1200	ug/L
Bromodichloromethane	ND	1200	ug/L
Bromoform	ND	1200	ug/L
Bromomethane	ND	1200	ug/L
Carbon tetrachloride	ND	1200	ug/L
Chlorobenzene	ND	1200	ug/L
Chlorodibromomethane	ND	1200	ug/L
Chloroethane	ND	1200	ug/L
Chloroform	ND	1200	ug/L
Chloromethane	ND	1200	ug/L
Dibromomethane	ND	1200	ug/L
1,2-Dichlorobenzene	ND	1200	ug/L
1,3-Dichlorobenzene	ND	1200	ug/L
1,4-Dichlorobenzene	ND	1200	ug/L
Dichlorodifluoromethane	ND	1200	ug/L
1,1-Dichloroethane	ND	1200	ug/L
1,2-Dichloroethane	ND	1200	ug/L
1,1-Dichloroethene	ND	1200	ug/L
cis-1,2-Dichloroethene	ND	1200	ug/L
trans-1,2-Dichloroethene	ND	1200	ug/L
1,2-Dichloropropane	ND	1200	ug/L
1,3-Dichloropropane	ND	1200	ug/L
2,2-Dichloropropane	ND	1200	ug/L
1,1-Dichloropropene	ND	1200	ug/L
1,4-Dioxane	ND	62000	ug/L
Ethylbenzene	ND	1200	ug/L
Trichlorofluoromethane	ND	1200	ug/L
Hexachlorobutadiene	ND	1200	ug/L
Isopropylbenzene	ND	1200	ug/L
Methylene chloride	ND	1200	ug/L
Naphthalene	ND	1200	ug/L
Styrene	ND	1200	ug/L
1,1,1,2-Tetrachloroethane	ND	1200	ug/L
1,1,2,2-Tetrachloroethane	ND	1200	ug/L
Tetrachloroethene	ND	1200	ug/L
Toluene	ND	1200	ug/L
1,2,4-Trichloro-benzene	ND	1200	ug/L
1,1,1-Trichloroethane	ND	1200	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-008 Work Order #...: GFN7L1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1200	ug/L
Trichloroethene	**19000**	**1200**	**ug/L**
1,2,3-Trichloropropane	ND	1200	ug/L
Vinyl chloride	ND	1200	ug/L
Xylenes (total)	ND	1200	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	103	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: DUP-V504-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-009 Work Order #...: GFN7N1AA Matrix.....: WQ
Date Sampled...: 05/05/04 12:00 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4137032
Dilution Factor: 1250 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	6200	ug/L
Bromodichloromethane	ND	6200	ug/L
Bromoform	ND	6200	ug/L
Bromomethane	ND	6200	ug/L
Carbon tetrachloride	ND	6200	ug/L
Chlorobenzene	ND	6200	ug/L
Chlorodibromomethane	ND	6200	ug/L
Chloroethane	ND	6200	ug/L
Chloroform	ND	6200	ug/L
Chloromethane	ND	6200	ug/L
Dibromomethane	ND	6200	ug/L
1,2-Dichlorobenzene	ND	6200	ug/L
1,3-Dichlorobenzene	ND	6200	ug/L
1,4-Dichlorobenzene	ND	6200	ug/L
Dichlorodifluoromethane	ND	6200	ug/L
1,1-Dichloroethane	ND	6200	ug/L
1,2-Dichloroethane	ND	6200	ug/L
1,1-Dichloroethene	ND	6200	ug/L
cis-1,2-Dichloroethene	ND	6200	ug/L
trans-1,2-Dichloroethene	ND	6200	ug/L
1,2-Dichloropropane	ND	6200	ug/L
1,3-Dichloropropane	ND	6200	ug/L
2,2-Dichloropropane	ND	6200	ug/L
1,1-Dichloropropene	ND	6200	ug/L
1,4-Dioxane	ND	310000	ug/L
Ethylbenzene	ND	6200	ug/L
Trichlorofluoromethane	ND	6200	ug/L
Hexachlorobutadiene	ND	6200	ug/L
Isopropylbenzene	ND	6200	ug/L
Methylene chloride	ND	6200	ug/L
Naphthalene	ND	6200	ug/L
Styrene	ND	6200	ug/L
1,1,1,2-Tetrachloroethane	ND	6200	ug/L
1,1,2,2-Tetrachloroethane	ND	6200	ug/L
Tetrachloroethene	ND	6200	ug/L
Toluene	ND	6200	ug/L
1,2,4-Trichloro-benzene	ND	6200	ug/L
1,1,1-Trichloroethane	ND	6200	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: DUP-V504-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-009 Work Order #...: GFN7N1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	6200	ug/L
Trichloroethene	**19000**	**6200**	**ug/L**
1,2,3-Trichloropropane	ND	6200	ug/L
Vinyl chloride	ND	2500	ug/L
Xylenes (total)	ND	6200	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	77	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: DUP-V504-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-010 **Work Order #...:** GFN7Q1AA **Matrix.....:** WQ
Date Sampled...: 05/05/04 12:00 **Date Received..:** 05/06/04
Prep Date.....: 05/14/04 **Analysis Date..:** 05/14/04
Prep Batch #...: 4137032
Dilution Factor: 1250 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	6200	ug/L
Bromodichloromethane	ND	6200	ug/L
Bromoform	ND	6200	ug/L
Bromomethane	ND	6200	ug/L
Carbon tetrachloride	ND	6200	ug/L
Chlorobenzene	ND	6200	ug/L
Chlorodibromomethane	ND	6200	ug/L
Chloroethane	ND	6200	ug/L
Chloroform	ND	6200	ug/L
Chloromethane	ND	6200	ug/L
Dibromomethane	ND	6200	ug/L
1,2-Dichlorobenzene	ND	6200	ug/L
1,3-Dichlorobenzene	ND	6200	ug/L
1,4-Dichlorobenzene	ND	6200	ug/L
Dichlorodifluoromethane	ND	6200	ug/L
1,1-Dichloroethane	ND	6200	ug/L
1,2-Dichloroethane	ND	6200	ug/L
1,1-Dichloroethene	ND	6200	ug/L
cis-1,2-Dichloroethene	ND	6200	ug/L
trans-1,2-Dichloroethene	ND	6200	ug/L
1,2-Dichloropropane	ND	6200	ug/L
1,3-Dichloropropane	ND	6200	ug/L
2,2-Dichloropropane	ND	6200	ug/L
1,1-Dichloropropene	ND	6200	ug/L
1,4-Dioxane	ND	310000	ug/L
Ethylbenzene	ND	6200	ug/L
Trichlorofluoromethane	ND	6200	ug/L
Hexachlorobutadiene	ND	6200	ug/L
Isopropylbenzene	ND	6200	ug/L
Methylene chloride	ND	6200	ug/L
Naphthalene	ND	6200	ug/L
Styrene	ND	6200	ug/L
1,1,1,2-Tetrachloroethane	ND	6200	ug/L
1,1,2,2-Tetrachloroethane	ND	6200	ug/L
Tetrachloroethene	ND	6200	ug/L
Toluene	ND	6200	ug/L
1,2,4-Trichloro-benzene	ND	6200	ug/L
1,1,1-Trichloroethane	ND	6200	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: DUP-V504-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-010 **Work Order #...:** GFN7Q1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	6200	ug/L
Trichloroethene	**19000**	**6200**	**ug/L**
1,2,3-Trichloropropane	ND	6200	ug/L
Vinyl chloride	ND	2500	ug/L
Xylenes (total)	ND	6200	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-011 **Work Order #...:** GFN7V1AA **Matrix.....:** WG
Date Sampled...: 05/05/04 09:50 **Date Received..:** 05/06/04
Prep Date.....: 05/14/04 **Analysis Date..:** 05/14/04
Prep Batch #...: 4137032
Dilution Factor: 200 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	200	ug/L
Bromodichloromethane	ND	200	ug/L
Bromoform	ND	200	ug/L
Bromomethane	ND	200	ug/L
Carbon tetrachloride	ND	200	ug/L
Chlorobenzene	ND	200	ug/L
Chlorodibromomethane	ND	200	ug/L
Chloroethane	ND	200	ug/L
Chloroform	ND	200	ug/L
Chloromethane	ND	200	ug/L
Dibromomethane	ND	200	ug/L
1,2-Dichlorobenzene	ND	200	ug/L
1,3-Dichlorobenzene	ND	200	ug/L
1,4-Dichlorobenzene	ND	200	ug/L
Dichlorodifluoromethane	ND	200	ug/L
1,1-Dichloroethane	ND	200	ug/L
1,2-Dichloroethane	ND	200	ug/L
1,1-Dichloroethene	ND	200	ug/L
cis-1,2-Dichloroethene	**500**	**200**	**ug/L**
trans-1,2-Dichloroethene	ND	200	ug/L
1,2-Dichloropropane	ND	200	ug/L
1,3-Dichloropropane	ND	200	ug/L
2,2-Dichloropropane	ND	200	ug/L
1,1-Dichloropropene	ND	200	ug/L
1,4-Dioxane	ND	10000	ug/L
Ethylbenzene	ND	200	ug/L
Trichlorofluoromethane	ND	200	ug/L
Hexachlorobutadiene	ND	200	ug/L
Isopropylbenzene	ND	200	ug/L
Methylene chloride	ND	200	ug/L
Naphthalene	ND	200	ug/L
Styrene	ND	200	ug/L
1,1,1,2-Tetrachloroethane	ND	200	ug/L
1,1,2,2-Tetrachloroethane	ND	200	ug/L
Tetrachloroethene	ND	200	ug/L
Toluene	ND	200	ug/L
1,2,4-Trichloro-benzene	ND	200	ug/L
1,1,1-Trichloroethane	ND	200	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-011 Work Order #...: GFN7V1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	200	ug/L
Trichloroethene	**6800**	**200**	**ug/L**
1,2,3-Trichloropropane	ND	200	ug/L
Vinyl chloride	ND	200	ug/L
Xylenes (total)	ND	200	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-012 **Work Order #...:** GFN7X1AA **Matrix.....:** WG
Date Sampled...: 05/05/04 09:55 **Date Received..:** 05/06/04
Prep Date.....: 05/17/04 **Analysis Date..:** 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 250 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	250	ug/L
Bromodichloromethane	ND	250	ug/L
Bromoform	ND	250	ug/L
Bromomethane	ND	250	ug/L
Carbon tetrachloride	ND	250	ug/L
Chlorobenzene	ND	250	ug/L
Chlorodibromomethane	ND	250	ug/L
Chloroethane	ND	250	ug/L
Chloroform	ND	250	ug/L
Chloromethane	ND	250	ug/L
Dibromomethane	ND	250	ug/L
1,2-Dichlorobenzene	ND	250	ug/L
1,3-Dichlorobenzene	ND	250	ug/L
1,4-Dichlorobenzene	ND	250	ug/L
Dichlorodifluoromethane	ND	250	ug/L
1,1-Dichloroethane	ND	250	ug/L
1,2-Dichloroethane	ND	250	ug/L
1,1-Dichloroethene	ND	250	ug/L
cis-1,2-Dichloroethene	**450**	**250**	**ug/L**
trans-1,2-Dichloroethene	ND	250	ug/L
1,2-Dichloropropane	ND	250	ug/L
1,3-Dichloropropane	ND	250	ug/L
2,2-Dichloropropane	ND	250	ug/L
1,1-Dichloropropene	ND	250	ug/L
1,4-Dioxane	ND	12000	ug/L
Ethylbenzene	ND	250	ug/L
Trichlorofluoromethane	ND	250	ug/L
Hexachlorobutadiene	ND	250	ug/L
Isopropylbenzene	ND	250	ug/L
Methylene chloride	ND	250	ug/L
Naphthalene	ND	250	ug/L
Styrene	ND	250	ug/L
1,1,1,2-Tetrachloroethane	ND	250	ug/L
1,1,2,2-Tetrachloroethane	ND	250	ug/L
Tetrachloroethene	ND	250	ug/L
Toluene	ND	250	ug/L
1,2,4-Trichloro-benzene	ND	250	ug/L
1,1,1-Trichloroethane	ND	250	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-012 Work Order #...: GFN7X1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	250	ug/L
Trichloroethene	**6600**	**250**	**ug/L**
1,2,3-Trichloropropane	ND	250	ug/L
Vinyl chloride	ND	250	ug/L
Xylenes (total)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	78	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-013 Work Order #...: GFN721AA Matrix.....: WG
Date Sampled...: 05/05/04 10:00 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 200 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	200	ug/L
Bromodichloromethane	ND	200	ug/L
Bromoform	ND	200	ug/L
Bromomethane	ND	200	ug/L
Carbon tetrachloride	ND	200	ug/L
Chlorobenzene	ND	200	ug/L
Chlorodibromomethane	ND	200	ug/L
Chloroethane	ND	200	ug/L
Chloroform	ND	200	ug/L
Chloromethane	ND	200	ug/L
Dibromomethane	ND	200	ug/L
1,2-Dichlorobenzene	ND	200	ug/L
1,3-Dichlorobenzene	ND	200	ug/L
1,4-Dichlorobenzene	ND	200	ug/L
Dichlorodifluoromethane	ND	200	ug/L
1,1-Dichloroethane	ND	200	ug/L
1,2-Dichloroethane	ND	200	ug/L
1,1-Dichloroethene	ND	200	ug/L
cis-1,2-Dichloroethene	**450**	**200**	**ug/L**
trans-1,2-Dichloroethene	ND	200	ug/L
1,2-Dichloropropane	ND	200	ug/L
1,3-Dichloropropane	ND	200	ug/L
2,2-Dichloropropane	ND	200	ug/L
1,1-Dichloropropene	ND	200	ug/L
1,4-Dioxane	ND	10000	ug/L
Ethylbenzene	ND	200	ug/L
Trichlorofluoromethane	ND	200	ug/L
Hexachlorobutadiene	ND	200	ug/L
Isopropylbenzene	ND	200	ug/L
Methylene chloride	ND	200	ug/L
Naphthalene	ND	200	ug/L
Styrene	ND	200	ug/L
1,1,1,2-Tetrachloroethane	ND	200	ug/L
1,1,2,2-Tetrachloroethane	ND	200	ug/L
Tetrachloroethene	ND	200	ug/L
Toluene	ND	200	ug/L
1,2,4-Trichloro-benzene	ND	200	ug/L
1,1,1-Trichloroethane	ND	200	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-013 Work Order #...: GFN721AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	200	ug/L
Trichloroethene	**6100**	**200**	**ug/L**
1,2,3-Trichloropropane	ND	200	ug/L
Vinyl chloride	ND	200	ug/L
Xylenes (total)	ND	200	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-1-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-014 Work Order #...: GFN751AA Matrix.....: WG
Date Sampled...: 05/05/04 13:05 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-1-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-014 Work Order #...: GFN751AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	113	(73 - 122)
1,2-Dichloroethane-d4	114	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

TOTAL Metals

Lot-Sample #...: A4E060342-015 **Matrix.....:** WG
Date Sampled...: 05/05/04 10:30 **Date Received..:** 05/06/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4128028						
Silver	ND	0.10	mg/L	SW846 6010B	05/07-05/10/04	GFN761AA
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/07-05/10/04	GFN761AC
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/07-05/10/04	GFN761AD
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/07-05/10/04	GFN761AF
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/07-05/10/04	GFN761AG
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/07-05/10/04	GFN761AE
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/07-05/10/04	GFN761AH
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-1

TOTAL Metals

Lot-Sample #...: A4E060342-016 Matrix.....: WG
Date Sampled...: 05/05/04 15:20 Date Received..: 05/06/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4128028						
Silver	ND	0.10	mg/L	SW846 6010B	05/07-05/10/04	GFN8K1AA
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/07-05/10/04	GFN8K1AC
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/07-05/10/04	GFN8K1AD
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/07-05/10/04	GFN8K1AF
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/07-05/10/04	GFN8K1AG
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/07-05/10/04	GFN8K1AE
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/07-05/10/04	GFN8K1AH
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-017 Work Order #...: GFN8M1AA Matrix.....: WG
Date Sampled...: 05/05/04 14:40 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-017 Work Order #...: GFN8M1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-018 Work Order #...: GFN8R1AA Matrix.....: WG
Date Sampled...: 05/05/04 15:00 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-018 Work Order #...: GFN8R1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	112	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-019 Work Order #...: GFN8T1AA Matrix.....: WG
Date Sampled...: 05/05/04 15:05 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-019 **Work Order #...:** GFN8T1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-2-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-020 Work Order #...: GFN8V1AA Matrix.....: WG
Date Sampled...: 05/05/04 16:30 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-2-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-020 **Work Order #...:** GFN8V1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-021 Work Order #...: GFN8X1AA Matrix.....: WG
Date Sampled...: 05/05/04 16:00 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23-A

GC/MS Volatiles

Lot-Sample #...: A4E060342-021 Work Order #...: GFN8X1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-022 Work Order #...: GFN801AA Matrix.....: WG
Date Sampled...: 05/05/04 16:05 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23-B

GC/MS Volatiles

Lot-Sample #...: A4E060342-022 Work Order #...: GFN801AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-023 Work Order #...: GFN811AA Matrix.....: WG
Date Sampled...: 05/05/04 16:10 Date Received..: 05/06/04
Prep Date.....: 05/14/04 Analysis Date..: 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23-C

GC/MS Volatiles

Lot-Sample #...: A4E060342-023 Work Order #...: GFN811AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(73 - 122)
1,2-Dichloroethane-d4	113	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GF8771AA **Matrix.....:** WATER
MB Lot-Sample #: A4E140000-173

Prep Date.....: 05/13/04
Analysis Date..: 05/13/04 **Prep Batch #...:** 4135173
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Dibromomethane	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GF8771AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GGCHC1AA **Matrix.....:** WATER
MB Lot-Sample #: A4E150000-017

Prep Date.....: 05/14/04
Analysis Date..: 05/14/04 **Prep Batch #...:** 4136017
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GGCHC1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GGDAE1AA **Matrix.....:** WATER
MB Lot-Sample #: A4E160000-032

Prep Date.....: 05/13/04
Analysis Date..: 05/13/04 **Prep Batch #...:** 4137032
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GGDAE1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	105	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GGEW81AA **Matrix.....:** WATER
MB Lot-Sample #: A4E170000-590

Prep Date.....: 05/16/04
Analysis Date..: 05/16/04 **Prep Batch #...:** 4138590
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GGEW81AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A4E060342 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A4E070000-028 **Prep Batch #...:** 4128028						
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/07/04	GFP3A1CW
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/07/04	GFP3A1CX
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/07/04	GFP3A1CG
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/07/04	GFP3A1CT
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/07/04	GFP3A1C0
		Dilution Factor: 1				
Silver	ND	0.10	mg/L	SW846 6010B	05/07/04	GFP3A1CV
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/07/04	GFP3A1C1
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GF8771AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4E140000-173 GF8771AD-LCSD
Prep Date.....: 05/13/04 **Analysis Date..:** 05/13/04
Prep Batch #...: 4135173
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**100**	**(63 - 130)**			**SW846 8260B**
	110	**(63 - 130)**	**9.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**90**	**(75 - 122)**			**SW846 8260B**
	99	**(75 - 122)**	**9.5**	**(0-20)**	**SW846 8260B**
Benzene	**91**	**(80 - 116)**			**SW846 8260B**
	103	**(80 - 116)**	**13**	**(0-20)**	**SW846 8260B**
Toluene	**92**	**(74 - 119)**			**SW846 8260B**
	104	**(74 - 119)**	**12**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**89**	**(76 - 117)**			**SW846 8260B**
	100	**(76 - 117)**	**12**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
	109	(61 - 128)
Toluene-d8	103	(76 - 110)
	103	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GGCHC1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4E150000-017 GGCHC1AD-LCSD
Prep Date.....: 05/14/04 **Analysis Date..:** 05/14/04
Prep Batch #...: 4136017
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**92**	**(63 - 130)**			**SW846 8260B**
	103	**(63 - 130)**	**12**	**(0-20)**	**SW846 8260B**
Trichloroethene	**86**	**(75 - 122)**			**SW846 8260B**
	95	**(75 - 122)**	**9.8**	**(0-20)**	**SW846 8260B**
Benzene	**90**	**(80 - 116)**			**SW846 8260B**
	96	**(80 - 116)**	**6.5**	**(0-20)**	**SW846 8260B**
Toluene	**91**	**(74 - 119)**			**SW846 8260B**
	97	**(74 - 119)**	**6.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**90**	**(76 - 117)**			**SW846 8260B**
	94	**(76 - 117)**	**4.8**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
	103	(61 - 128)
Toluene-d8	100	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	92	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GGDAE1AC **Matrix.....:** WATER
LCS Lot-Sample#: A4E160000-032
Prep Date.....: 05/13/04 **Analysis Date..:** 05/13/04
Prep Batch #...: 4137032
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**101**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**110**	**(75 - 122)**	**SW846 8260B**
Benzene	**101**	**(80 - 116)**	**SW846 8260B**
Toluene	**104**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**107**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	109	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GGEW81AC **Matrix.....:** WATER
LCS Lot-Sample#: A4E170000-590
Prep Date.....: 05/16/04 **Analysis Date..:** 05/16/04
Prep Batch #...: 4138590
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**101**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**96**	**(75 - 122)**	**SW846 8260B**
Benzene	**102**	**(80 - 116)**	**SW846 8260B**
Toluene	**108**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**104**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A4E060342 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A4E070000-028 **Prep Batch #...:** 4128028					
Copper	87	(80 - 120)	SW846 6010B Dilution Factor: 1	05/07/04	GFP3A1DJ
Lead	83	(80 - 120)	SW846 6010B Dilution Factor: 1	05/07/04	GFP3A1DV
Silver	92	(80 - 120)	SW846 6010B Dilution Factor: 1	05/07/04	GFP3A1DX
Cadmium	83	(80 - 120)	SW846 6010B Dilution Factor: 1	05/07/04	GFP3A1D0
Chromium	83	(80 - 120)	SW846 6010B Dilution Factor: 1	05/07/04	GFP3A1D1
Nickel	83	(80 - 120)	SW846 6010B Dilution Factor: 1	05/07/04	GFP3A1D2
Zinc	86	(80 - 120)	SW846 6010B Dilution Factor: 1	05/07/04	GFP3A1D3

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GFNLV1AN-MS **Matrix.....:** WATER
MS Lot-Sample #: A4E060293-010 GFNLV1AP-MSD
Date Sampled...: 05/04/04 15:19 **Date Received..:** 05/06/04
Prep Date.....: 05/13/04 **Analysis Date..:** 05/13/04
Prep Batch #...: 4135173
Dilution Factor: 5

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**102**	**(62 - 130)**			**SW846 8260B**
	111	**(62 - 130)**	**8.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**95**	**(62 - 130)**			**SW846 8260B**
	103	**(62 - 130)**	**7.7**	**(0-20)**	**SW846 8260B**
Benzene	**100**	**(78 - 118)**			**SW846 8260B**
	109	**(78 - 118)**	**7.1**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(70 - 119)**			**SW846 8260B**
	108	**(70 - 119)**	**9.3**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**91**	**(76 - 117)**			**SW846 8260B**
	102	**(76 - 117)**	**12**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	101	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	111	(61 - 128)
Toluene-d8	96	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)
	96	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GFM9N1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A4E060244-002 GFM9N1AD-MSD
Date Sampled...: 05/04/04 16:13 **Date Received..:** 05/05/04
Prep Date.....: 05/13/04 **Analysis Date..:** 05/13/04
Prep Batch #...: 4137032
Dilution Factor: 25

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**107**	**(62 - 130)**			**SW846 8260B**
	106	**(62 - 130)**	**0.56**	**(0-20)**	**SW846 8260B**
Trichloroethene	**127**	**(62 - 130)**			**SW846 8260B**
	127	**(62 - 130)**	**0.04**	**(0-20)**	**SW846 8260B**
Benzene	**106**	**(78 - 118)**			**SW846 8260B**
	107	**(78 - 118)**	**0.71**	**(0-20)**	**SW846 8260B**
Toluene	**111**	**(70 - 119)**			**SW846 8260B**
	115	**(70 - 119)**	**3.7**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**107**	**(76 - 117)**			**SW846 8260B**
	112	**(76 - 117)**	**4.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	86	(61 - 128)
	90	(61 - 128)
Toluene-d8	104	(76 - 110)
	106	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)
	91	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E060342 **Work Order #...:** GFN7X1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A4E060342-012 GFN7X1AD-MSD
Date Sampled...: 05/05/04 09:55 **Date Received..:** 05/06/04
Prep Date.....: 05/17/04 **Analysis Date..:** 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 250

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**105**	**(62 - 130)**			**SW846 8260B**
	106	**(62 - 130)**	**1.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**114**	**(62 - 130)**			**SW846 8260B**
	118	**(62 - 130)**	**1.0**	**(0-20)**	**SW846 8260B**
Benzene	**100**	**(78 - 118)**			**SW846 8260B**
	103	**(78 - 118)**	**3.1**	**(0-20)**	**SW846 8260B**
Toluene	**106**	**(70 - 119)**			**SW846 8260B**
	105	**(70 - 119)**	**1.5**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**102**	**(76 - 117)**			**SW846 8260B**
	102	**(76 - 117)**	**0.12**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	95	(61 - 128)
Toluene-d8	98	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)
	85	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A4E060110 **Matrix.....:** WG
Date Sampled...: 05/03/04 13:30 **Date Received..:** 05/05/04

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A4E060110-001 **Prep Batch #...:** 4128028							
Antimony	112	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51AX
	111	(75 - 125)	0.87	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51A0
		Dilution Factor: 1					
Arsenic	111	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51A1
	111	(75 - 125)	0.17	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51A2
		Dilution Factor: 1					
Barium	108	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CL
	108	(75 - 125)	0.29	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CM
		Dilution Factor: 1					
Beryllium	109	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CN
	109	(75 - 125)	0.08	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CP
		Dilution Factor: 1					
Cadmium	110	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51A3
	110	(75 - 125)	0.28	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51A4
		Dilution Factor: 1					
Chromium	111	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CJ
	111	(75 - 125)	0.34	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CK
		Dilution Factor: 1					
Cobalt	110	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51A5
	110	(75 - 125)	0.06	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51A6
		Dilution Factor: 1					
Copper	115	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CQ
	115	(75 - 125)	0.26	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CR
		Dilution Factor: 1					
Lead	111	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51A7
	111	(75 - 125)	0.07	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51A8
		Dilution Factor: 1					
Nickel	111	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CT
	111	(75 - 125)	0.01	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CU
		Dilution Factor: 1					

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A4E060110 **Matrix.....:** WG
Date Sampled...: 05/03/04 13:30 **Date Received..:** 05/05/04

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	115	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51A9
	114	(75 - 125)	0.34	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CA
		Dilution Factor: 1					
Silver	123	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CC
	123	(75 - 125)	0.63	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CD
		Dilution Factor: 1					
Thallium	110	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CE
	110	(75 - 125)	0.29	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CF
		Dilution Factor: 1					
Tin	108	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CV
	108	(75 - 125)	0.06	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CW
		Dilution Factor: 1					
Vanadium	109	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CG
	109	(75 - 125)	0.20	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51CH
		Dilution Factor: 1					
Zinc	116	(75 - 125)			SW846 6010B	05/07-05/10/04	GFLX51CX
	116	(75 - 125)	0.01	(0-20)	SW846 6010B	05/07-05/10/04	GFLX51C0
		Dilution Factor: 1					
Mercury	89	(53 - 135)			SW846 7470A	05/07-05/10/04	GFLX51C1
	86	(53 - 135)	4.4	(0-20)	SW846 7470A	05/07-05/10/04	GFLX51C2
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MACTEC	Rhonda Quinn	5.5.04	149818
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
3200 Town Point Dr.	770-421-3400		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144		Roger Toth	
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/VOCs	Special Instructions/ Conditions of Receipt
MW-17-A	5.4.04	1630		X						3			X	
MW-17-B		1640		X						3			X	
MW-17-C		1645		X						3			X	
MW-18-A		1700		X						3			X	
MW-18-B		1710		X						3			X	
MW-18-C	↓	1720		X						3			X	
MW-19-A	5.5.04	855		X						3			X	
MW-19-B		910		X						3			X	
DUP-V504-A		1200		X						2			X	
DUP-V504-B		1200		X						3			X	
MW-14-A		950		X						3			X	
MW-14-B	↓	955		X						3			X	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	5.5.04	1820	1. Received By	5-6-04	10:05
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report: CANARY - Stays with the Sample: PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

73

STL-4124 (0901)

Client: MALTEC	Project Manager: RHONDA QUINN	Date: 5-5-04	Chain of Custody Number: 149820
Address: 3200 TOWN POINT DR.	Telephone Number (Area Code)/Fax Number: 770-421-3400	Lab Number:	Page 2 of 2
City: KENNESAW / State: GA / Zip Code: 30144	Site Contact:	Lab Contact: ROGER TOTH	
Project Name and Location (State): FK LOUISVILLE (GA)	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B/VOCs	Total Metals 6010B/7470	Dissolved Metals 6010B/7470	Special Instructions/ Conditions of Receipt
MW-14-C	5-5-04	1000		X						X			3			* METALS INCLUDE:
MW-1-A		1305		X						X			3			AS, BA, CD, CR,
MW-19		1030		X					X					1	1	PB, HG, SE, AG
MW-1		1520		X					X					1	1	
MW-22-A		1440		X						X			3			+ FILTER DISSOLVED
MW-22-B		1500		X						X			3			METALS UPON
MW-22-C		1505		X						X			3			RECEIPT
MW-2-A		1630		X						X			3			
MW-23-A		1600		X						X			3			
MW-23-B		1605		X						X			3			
MW-23-C		1610		X						X			3			
Temp Blank																

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: [signature]	Date: 5.5.04	Time: 1870	1. Received By: [signature]	Date: 5-6-04	Time: 10:05
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A4E070331

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GFTD3	001	MW-20-A	05/06/04	08:30
GFTEK	002	MW-20-B	05/06/04	08:35
GFTEL	003	MW-20-C	05/06/04	08:40
GFTEM	004	MW-3	05/06/04	09:15
GFTHF	005	MW-4	05/06/04	12:15
GFTHH	006	MW-10-A	05/06/04	14:40
GFTHM	007	MW-10-B	05/06/04	14:45
GFTHQ	008	MW-10	05/06/04	16:30
GFTJD	009	TRIP BLANK	05/06/04	

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK LOUISVILLE

Lot #: A4E070331

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

May 25, 2004

CASE NARRATIVE

A4E070331

The following report contains the analytical results for eight water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK Louisville Site, project number 12000-0-2050. The samples were received May 07, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on May 21, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.1°C.

See STL's Cooler Receipt Form for additional information.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

METALS

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A4E070331

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-20-A 05/06/04 08:30 001				
cis-1,2-Dichloroethene	40	7.2	ug/L	SW846 8260B
MW-20-B 05/06/04 08:35 002				
cis-1,2-Dichloroethene	40	7.2	ug/L	SW846 8260B
MW-20-C 05/06/04 08:40 003				
cis-1,2-Dichloroethene	33	5.0	ug/L	SW846 8260B
MW-3 05/06/04 09:15 004				
Chloroform	7.3	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	5.1	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	6.7	5.0	ug/L	SW846 8260B
Trichloroethene	8.1	5.0	ug/L	SW846 8260B
MW-10-A 05/06/04 14:40 006				
Trichloroethene	8.5	5.0	ug/L	SW846 8260B
MW-10-B 05/06/04 14:45 007				
Trichloroethene	5.8	5.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A4E070331

PARAMETER	ANALYTICAL METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20-A

GC/MS Volatiles

Lot-Sample #...: A4E070331-001 **Work Order #...:** GFTD31AA **Matrix.....:** WG
Date Sampled...: 05/06/04 08:30 **Date Received..:** 05/07/04
Prep Date.....: 05/17/04 **Analysis Date..:** 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 1.43 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	7.2	ug/L
Bromodichloromethane	ND	7.2	ug/L
Bromoform	ND	7.2	ug/L
Bromomethane	ND	7.2	ug/L
Carbon tetrachloride	ND	7.2	ug/L
Chlorobenzene	ND	7.2	ug/L
Chlorodibromomethane	ND	7.2	ug/L
Chloroethane	ND	7.2	ug/L
Chloroform	ND	7.2	ug/L
Chloromethane	ND	7.2	ug/L
Dibromomethane	ND	7.2	ug/L
1,2-Dichlorobenzene	ND	7.2	ug/L
1,3-Dichlorobenzene	ND	7.2	ug/L
1,4-Dichlorobenzene	ND	7.2	ug/L
Dichlorodifluoromethane	ND	7.2	ug/L
1,1-Dichloroethane	ND	7.2	ug/L
1,2-Dichloroethane	ND	7.2	ug/L
1,1-Dichloroethene	ND	7.2	ug/L
cis-1,2-Dichloroethene	**40**	**7.2**	**ug/L**
trans-1,2-Dichloroethene	ND	7.2	ug/L
1,2-Dichloropropane	ND	7.2	ug/L
1,3-Dichloropropane	ND	7.2	ug/L
2,2-Dichloropropane	ND	7.2	ug/L
1,1-Dichloropropene	ND	7.2	ug/L
1,4-Dioxane	ND	360	ug/L
Ethylbenzene	ND	7.2	ug/L
Trichlorofluoromethane	ND	7.2	ug/L
Hexachlorobutadiene	ND	7.2	ug/L
Isopropylbenzene	ND	7.2	ug/L
Methylene chloride	ND	7.2	ug/L
Naphthalene	ND	7.2	ug/L
Styrene	ND	7.2	ug/L
1,1,1,2-Tetrachloroethane	ND	7.2	ug/L
1,1,2,2-Tetrachloroethane	ND	7.2	ug/L
Tetrachloroethene	ND	7.2	ug/L
Toluene	ND	7.2	ug/L
1,2,4-Trichloro-benzene	ND	7.2	ug/L
1,1,1-Trichloroethane	ND	7.2	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20-A

GC/MS Volatiles

Lot-Sample #...: A4E070331-001 **Work Order #...:** GFTD31AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	7.2	ug/L
Trichloroethene	ND	7.2	ug/L
1,2,3-Trichloropropane	ND	7.2	ug/L
Vinyl chloride	ND	2.9	ug/L
Xylenes (total)	ND	7.2	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	78	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20-B

GC/MS Volatiles

Lot-Sample #...: A4E070331-002 Work Order #...: GFTEK1AA Matrix.....: WG
Date Sampled...: 05/06/04 08:35 Date Received..: 05/07/04
Prep Date.....: 05/17/04 Analysis Date..: 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 1.43 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	7.2	ug/L
Bromodichloromethane	ND	7.2	ug/L
Bromoform	ND	7.2	ug/L
Bromomethane	ND	7.2	ug/L
Carbon tetrachloride	ND	7.2	ug/L
Chlorobenzene	ND	7.2	ug/L
Chlorodibromomethane	ND	7.2	ug/L
Chloroethane	ND	7.2	ug/L
Chloroform	ND	7.2	ug/L
Chloromethane	ND	7.2	ug/L
Dibromomethane	ND	7.2	ug/L
1,2-Dichlorobenzene	ND	7.2	ug/L
1,3-Dichlorobenzene	ND	7.2	ug/L
1,4-Dichlorobenzene	ND	7.2	ug/L
Dichlorodifluoromethane	ND	7.2	ug/L
1,1-Dichloroethane	ND	7.2	ug/L
1,2-Dichloroethane	ND	7.2	ug/L
1,1-Dichloroethene	ND	7.2	ug/L
cis-1,2-Dichloroethene	**40**	**7.2**	**ug/L**
trans-1,2-Dichloroethene	ND	7.2	ug/L
1,2-Dichloropropane	ND	7.2	ug/L
1,3-Dichloropropane	ND	7.2	ug/L
2,2-Dichloropropane	ND	7.2	ug/L
1,1-Dichloropropene	ND	7.2	ug/L
1,4-Dioxane	ND	360	ug/L
Ethylbenzene	ND	7.2	ug/L
Trichlorofluoromethane	ND	7.2	ug/L
Hexachlorobutadiene	ND	7.2	ug/L
Isopropylbenzene	ND	7.2	ug/L
Methylene chloride	ND	7.2	ug/L
Naphthalene	ND	7.2	ug/L
Styrene	ND	7.2	ug/L
1,1,1,2-Tetrachloroethane	ND	7.2	ug/L
1,1,2,2-Tetrachloroethane	ND	7.2	ug/L
Tetrachloroethene	ND	7.2	ug/L
Toluene	ND	7.2	ug/L
1,2,4-Trichloro-benzene	ND	7.2	ug/L
1,1,1-Trichloroethane	ND	7.2	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20-B

GC/MS Volatiles

Lot-Sample #...: A4E070331-002 Work Order #...: GFTEK1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	7.2	ug/L
Trichloroethene	ND	7.2	ug/L
1,2,3-Trichloropropane	ND	7.2	ug/L
Vinyl chloride	ND	2.9	ug/L
Xylenes (total)	ND	7.2	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	78	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20-C

GC/MS Volatiles

Lot-Sample #...: A4E070331-003 Work Order #...: GFTEL1AA Matrix.....: WG
Date Sampled...: 05/06/04 08:40 Date Received..: 05/07/04
Prep Date.....: 05/17/04 Analysis Date..: 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	**33**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20-C

GC/MS Volatiles

Lot-Sample #...: A4E070331-003 Work Order #...: GFTEL1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: A4E070331-004 **Work Order #...:** GFTEM1AA **Matrix.....:** WG
Date Sampled...: 05/06/04 09:15 **Date Received..:** 05/07/04
Prep Date.....: 05/17/04 **Analysis Date..:** 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	**7.3**	**5.0**	**ug/L**
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	**5.1**	**5.0**	**ug/L**
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	**6.7**	**5.0**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: A4E070331-004 Work Order #...: GFTEM1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	**8.1**	**5.0**	**ug/L**
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	77	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-3

TOTAL Metals

Lot-Sample #...: A4E070331-004 **Matrix.....:** WG
Date Sampled...: 05/06/04 09:15 **Date Received..:** 05/07/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4132021						
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AH
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AF
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AJ
		Dilution Factor: 1				
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AC
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AD
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AE
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AG
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-3

DISSOLVED Metals

Lot-Sample #...: A4E070331-004 **Matrix.....:** WG
Date Sampled...: 05/06/04 09:15 **Date Received..:** 05/07/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4132021						
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AR
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AP
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AT
		Dilution Factor: 1				
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AL
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AM
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AN
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFTEM1AQ
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: A4E070331-005 Work Order #...: GFTHF1AA Matrix.....: WG
Date Sampled...: 05/06/04 12:15 Date Received..: 05/07/04
Prep Date.....: 05/17/04 Analysis Date..: 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: A4E070331-005 Work Order #...: GFTHF1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	76	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-4

TOTAL Metals

Lot-Sample #...: A4E070331-005 Matrix.....: WG
Date Sampled...: 05/06/04 12:15 Date Received..: 05/07/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4132021						
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AC
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AD
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AE
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AG
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AH
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AF
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AJ
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-4

DISSOLVED Metals

Lot-Sample #...: A4E070331-005 **Matrix.....:** WG
Date Sampled...: 05/06/04 12:15 **Date Received..:** 05/07/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4132021						
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AL
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AM
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AN
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AQ
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AR
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AP
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFTHF1AT
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10-A

GC/MS Volatiles

Lot-Sample #...: A4E070331-006 Work Order #...: GFTHH1AA Matrix.....: WG
Date Sampled...: 05/06/04 14:40 Date Received..: 05/07/04
Prep Date.....: 05/17/04 Analysis Date..: 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10-A

GC/MS Volatiles

Lot-Sample #...: A4E070331-006 Work Order #...: GFTHH1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	**8.5**	**5.0**	**ug/L**
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	75	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10-B

GC/MS Volatiles

Lot-Sample #...: A4E070331-007 Work Order #...: GFTHM1AA Matrix.....: WG
Date Sampled...: 05/06/04 14:45 Date Received..: 05/07/04
Prep Date.....: 05/17/04 Analysis Date..: 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10-B

GC/MS Volatiles

Lot-Sample #...: A4E070331-007 Work Order #...: GFTHM1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	**5.8**	**5.0**	**ug/L**
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	77	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10

TOTAL Metals

Lot-Sample #...: A4E070331-008 **Matrix.....:** WG
Date Sampled...: 05/06/04 16:30 **Date Received..:** 05/07/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4132021						
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AA
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AC
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AD
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AF
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AG
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AE
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AH
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10

DISSOLVED Metals

Lot-Sample #...: A4E070331-008 **Matrix.....:** WG
Date Sampled...: 05/06/04 16:30 **Date Received..:** 05/07/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4132021						
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AK
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AL
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AM
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AP
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AQ
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AN
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFTHQ1AR
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4E070331-009 Work Order #...: GFTJD1AA Matrix.....: WQ
Date Sampled...: 05/06/04 Date Received..: 05/07/04
Prep Date.....: 05/19/04 Analysis Date..: 05/19/04
Prep Batch #...: 4140100
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4E070331-009 **Work Order #...:** GFTJD1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E070331 **Work Order #...:** GGEW81AA **Matrix.....:** WATER
MB Lot-Sample #: A4E170000-590

Prep Date.....: 05/16/04
Analysis Date..: 05/16/04 **Prep Batch #...:** 4138590
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E070331 **Work Order #...:** GGEW81AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E070331 **Work Order #...:** GGH0R1AA **Matrix.....:** WATER
MB Lot-Sample #: A4E190000-100

Prep Date.....: 05/18/04
Analysis Date..: 05/18/04 **Prep Batch #...:** 4140100
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E070331 **Work Order #...:** GGH0R1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(73 - 122)
1,2-Dichloroethane-d4	115	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A4E070331 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A4E110000-021 **Prep Batch #...:** 4132021						
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AT
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AU
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AE
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AA
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AF
		Dilution Factor: 1				
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AR
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AH
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: A4E070331 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A4E110000-021 **Prep Batch #...:** 4132021						
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AW
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AX
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1A1
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1A0
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1A2
		Dilution Factor: 1				
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AV
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1A3
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E070331 **Work Order #...:** GGEW81AC **Matrix.....:** WATER
LCS Lot-Sample#: A4E170000-590
Prep Date.....: 05/16/04 **Analysis Date..:** 05/16/04
Prep Batch #...: 4138590
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**101**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**96**	**(75 - 122)**	**SW846 8260B**
Benzene	**102**	**(80 - 116)**	**SW846 8260B**
Toluene	**108**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**104**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E070331 **Work Order #...:** GGH0R1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4E190000-100 GGH0R1AD-LCSD
Prep Date.....: 05/18/04 **Analysis Date..:** 05/18/04
Prep Batch #...: 4140100
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**111**	**(63 - 130)**			**SW846 8260B**
	114	**(63 - 130)**	**2.5**	**(0-20)**	**SW846 8260B**
Trichloroethene	**100**	**(75 - 122)**			**SW846 8260B**
	102	**(75 - 122)**	**1.5**	**(0-20)**	**SW846 8260B**
Benzene	**101**	**(80 - 116)**			**SW846 8260B**
	104	**(80 - 116)**	**2.8**	**(0-20)**	**SW846 8260B**
Toluene	**107**	**(74 - 119)**			**SW846 8260B**
	107	**(74 - 119)**	**0.38**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**104**	**(76 - 117)**			**SW846 8260B**
	104	**(76 - 117)**	**0.82**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	101	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
	112	(61 - 128)
Toluene-d8	103	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	99	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A4E070331 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A4E110000-021 **Prep Batch #...:** 4132021					
Lead	88	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1AJ
Copper	91	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1AM
Nickel	90	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1AN
Zinc	91	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1AQ
Silver	97	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1A8
Cadmium	89	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1A9
Chromium	89	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CA

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A4E070331 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A4E110000-021 **Prep Batch #...:** 4132021					
Silver	97	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CC
Cadmium	89	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CD
Chromium	89	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CE
Lead	88	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CF
Copper	91	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CG
Nickel	90	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CH
Zinc	91	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CJ

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E070331 **Work Order #...:** GFN7X1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A4E060342-012 GFN7X1AD-MSD
Date Sampled...: 05/05/04 09:55 **Date Received..:** 05/06/04
Prep Date.....: 05/17/04 **Analysis Date..:** 05/17/04
Prep Batch #...: 4138590
Dilution Factor: 250

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**105**	**(62 - 130)**			**SW846 8260B**
	106	**(62 - 130)**	**1.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**114**	**(62 - 130)**			**SW846 8260B**
	118	**(62 - 130)**	**1.0**	**(0-20)**	**SW846 8260B**
Benzene	**100**	**(78 - 118)**			**SW846 8260B**
	103	**(78 - 118)**	**3.1**	**(0-20)**	**SW846 8260B**
Toluene	**106**	**(70 - 119)**			**SW846 8260B**
	105	**(70 - 119)**	**1.5**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**102**	**(76 - 117)**			**SW846 8260B**
	102	**(76 - 117)**	**0.12**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	95	(61 - 128)
Toluene-d8	98	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)
	85	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E070331 **Work Order #...:** GFWAT1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A4E080216-001 GFWAT1AD-MSD
Date Sampled...: 05/07/04 07:30 **Date Received..:** 05/08/04
Prep Date.....: 05/19/04 **Analysis Date..:** 05/19/04
Prep Batch #...: 4140100
Dilution Factor: 9.09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	105	**(62 - 130)**	**7.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**68**	**(62 - 130)**			**SW846 8260B**
	84	**(62 - 130)**	**4.0**	**(0-20)**	**SW846 8260B**
Benzene	**95**	**(78 - 118)**			**SW846 8260B**
	100	**(78 - 118)**	**5.4**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(70 - 119)**			**SW846 8260B**
	100	**(70 - 119)**	**4.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**91**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**5.3**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
	114	(61 - 128)
Toluene-d8	99	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A4E070331 **Matrix.....:** WATER
Date Sampled...: 05/06/04 11:00 **Date Received..:** 05/07/04

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A4E070298-001 **Prep Batch #...:** 4132021							
Cadmium	87	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601CC
	91	(75 - 125)	3.9	(0-20)	SW846 6010B	05/11-05/20/04	GFR601CD
		Dilution Factor: 1					
Chromium	90	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601CF
	93	(75 - 125)	3.1	(0-20)	SW846 6010B	05/11-05/20/04	GFR601CG
		Dilution Factor: 1					
Copper	91	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601AX
	95	(75 - 125)	3.9	(0-20)	SW846 6010B	05/11-05/20/04	GFR601A0
		Dilution Factor: 1					
Lead	87	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601AQ
	91	(75 - 125)	4.3	(0-20)	SW846 6010B	05/11-05/20/04	GFR601AR
		Dilution Factor: 1					
Nickel	90	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601A1
	93	(75 - 125)	3.6	(0-20)	SW846 6010B	05/11-05/20/04	GFR601A2
		Dilution Factor: 1					
Silver	95	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601A8
	100	(75 - 125)	4.3	(0-20)	SW846 6010B	05/11-05/20/04	GFR601A9
		Dilution Factor: 1					
Zinc	92	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601A5
	95	(75 - 125)	2.3	(0-20)	SW846 6010B	05/11-05/20/04	GFR601A6
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

44

STL-4124 (0901)

Client: MACTEC	Project Manager: Rhonda Quinn	Date: 5·6·04	Chain of Custody Number: 149819
Address: 3200 Town Point Dr.	Telephone Number (Area Code)/Fax Number: 770-421-3400	Lab Number:	Page 1 of 2
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact: Roger Toth	
Project Name and Location (State): TK Louisville	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC 8260B	TOTAL METALS* 6010B	DISSOLVED METALS* 6010B	Special Instructions/ Conditions of Receipt
MW-20-A	5·6·04	830		x						x			3			* FILTER DISSOLVED
MW-20-B	↓	835		x						x			3			METALS UPON RECIEPT
MW-20-C		840		x						x			3			
MW-3		915		x						x			3	~~1~~ 50	~~1~~ 50	* METALS FOR ANALYSIS:
MW-3		1040		x					x					1		CO, CR, CU, PB, NI,
MW-3		1040		x			x							~~1~~ 50	1	AG, ZN
MW-4		1215		x						x			3			
MW-4		1400		x					x					1		
MW-4		1400		x			x								1	
MW-10-A		1440		x						x			3			
MW-10-B		1445		x						x			3			

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	1745	5·6·04	1. Received By: [signature]	5/7/04	1035
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Serial Number 50112

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

○ STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

○ Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
TK Louisville		
STL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Roger Toth		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Rhonda Quinn	770-421-3400	
CLIENT NAME	CLIENT E-MAIL	
MACTEC		
CLIENT ADDRESS		
3200 Town Point Drive		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 2 OF 2

STANDARD REPORT DELIVERY ☒
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT,...)	REQUIRED ANALYSIS: Total Metals 6010B	REQUIRED ANALYSIS: Dissolved Metals 6010B	REQUIRED ANALYSIS: HG03	NUMBER OF CONTAINERS SUBMITTED	REMARKS
5.6.04	1630	MW-10		G				1	1			
		Trip Blank								1		

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	5-6-04	1745		5/7/04	1035			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES ○ NO ○	CUSTODY SEAL NO.	STL SAVANNAH LOG NO.	LABORATORY REMARKS

STL8240-680 (12/02)

SAMPLE SUMMARY

A4E080216

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GFWAT	001	MW-5	05/07/04	07:30
GFWA1	002	MT-504	05/07/04	12:00
GFWCE	003	MW-5	05/07/04	08:30
GFWCH	004	MW-21-A	05/07/04	08:50
GFWCJ	005	MW-21-B	05/07/04	08:55
GFWCK	006	MW-21-C	05/07/04	09:00
GFWCN	007	MW-8-A	05/07/04	09:25
GFWCQ	008	MW-8-B	05/07/04	09:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK LOUISVILLE

Lot #: A4E080216

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

May 26, 2004

CASE NARRATIVE

A4E080216

The following report contains the analytical results for eight water samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK Louisville Site, project number 12000-0-2050. The samples were received May 08, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on May 24, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.8°C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

METALS

Serial dilution of a sample in this lot indicates that physical and chemical interferences were present. Refer to the sample report pages for the affected analytes flagged with "E".

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A4E080216

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-5 05/07/04 07:30 001				
Trichloroethene	310	45	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A4E080216

PARAMETER	ANALYTICAL METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A4E080216-001 **Work Order #...:** GFWAT1AA **Matrix.....:** WG
Date Sampled...: 05/07/04 07:30 **Date Received..:** 05/08/04
Prep Date.....: 05/19/04 **Analysis Date..:** 05/19/04
Prep Batch #...: 4140100
Dilution Factor: 9.09 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	45	ug/L
Bromodichloromethane	ND	45	ug/L
Bromoform	ND	45	ug/L
Bromomethane	ND	45	ug/L
Carbon tetrachloride	ND	45	ug/L
Chlorobenzene	ND	45	ug/L
Chlorodibromomethane	ND	45	ug/L
Chloroethane	ND	45	ug/L
Chloroform	ND	45	ug/L
Chloromethane	ND	45	ug/L
Dibromomethane	ND	45	ug/L
1,2-Dichlorobenzene	ND	45	ug/L
1,3-Dichlorobenzene	ND	45	ug/L
1,4-Dichlorobenzene	ND	45	ug/L
Dichlorodifluoromethane	ND	45	ug/L
1,1-Dichloroethane	ND	45	ug/L
1,2-Dichloroethane	ND	45	ug/L
1,1-Dichloroethene	ND	45	ug/L
cis-1,2-Dichloroethene	ND	45	ug/L
trans-1,2-Dichloroethene	ND	45	ug/L
1,2-Dichloropropane	ND	45	ug/L
1,3-Dichloropropane	ND	45	ug/L
2,2-Dichloropropane	ND	45	ug/L
1,1-Dichloropropene	ND	45	ug/L
1,4-Dioxane	ND	2300	ug/L
Ethylbenzene	ND	45	ug/L
Trichlorofluoromethane	ND	45	ug/L
Hexachlorobutadiene	ND	45	ug/L
Isopropylbenzene	ND	45	ug/L
Methylene chloride	ND	45	ug/L
Naphthalene	ND	45	ug/L
Styrene	ND	45	ug/L
1,1,1,2-Tetrachloroethane	ND	45	ug/L
1,1,2,2-Tetrachloroethane	ND	45	ug/L
Tetrachloroethene	ND	45	ug/L
Toluene	ND	45	ug/L
1,2,4-Trichloro-benzene	ND	45	ug/L
1,1,1-Trichloroethane	ND	45	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A4E080216-001 Work Order #...: GFWAT1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	45	ug/L
Trichloroethene	**310**	**45**	**ug/L**
1,2,3-Trichloropropane	ND	45	ug/L
Vinyl chloride	ND	18	ug/L
Xylenes (total)	ND	45	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	112	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MT-504

TOTAL Metals

Lot-Sample #...: A4E080216-002 Matrix.....: WG
Date Sampled...: 05/07/04 12:00 Date Received..: 05/08/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4132021						
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AA
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AC
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AD
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AF
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AG
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AE
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AH
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MT-504

DISSOLVED Metals

Lot-Sample #...: A4E080216-002 **Matrix.....:** WG
Date Sampled...: 05/07/04 12:00 **Date Received..:** 05/08/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4132021						
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AJ
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AK
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AL
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AN
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AP
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AM
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFWA11AQ
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

TOTAL Metals

ot-Sample #...: A4E080216-003 **Matrix.....:** WG
ate Sampled...: 05/07/04 08:30 **Date Received..:** 05/08/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
rep Batch #...: 4132021						
ilver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AA
		Dilution Factor: 1				
admium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AC
		Dilution Factor: 1				
hromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AD
		Dilution Factor: 1				
opper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AF
		Dilution Factor: 1				
ickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AG
		Dilution Factor: 1				
ead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AE
		Dilution Factor: 1				
inc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AH
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

DISSOLVED Metals

Lot-Sample #...: A4E080216-003 Matrix.....: WG
Date Sampled...: 05/07/04 08:30 Date Received..: 05/08/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4132021						
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AJ
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AK
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AL
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AN
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AP
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AM
		Dilution Factor: 1				
Zinc	ND E	2.0	mg/L	SW846 6010B	05/11-05/20/04	GFWCE1AQ
		Dilution Factor: 1				

NOTE(S):

Matrix interference.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21-A

GC/MS Volatiles

Lot-Sample #...: A4E080216-004 Work Order #...: GFWCH1AA Matrix.....: WG
Date Sampled...: 05/07/04 08:50 Date Received..: 05/08/04
Prep Date.....: 05/20/04 Analysis Date..: 05/20/04
Prep Batch #...: 4141090
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21-A

GC/MS Volatiles

Lot-Sample #...: A4E080216-004 Work Order #...: GFWCH1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	117	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21-B

GC/MS Volatiles

Lot-Sample #...: A4E080216-005 Work Order #...: GFWCJ1AA Matrix.....: WG
Date Sampled...: 05/07/04 08:55 Date Received..: 05/08/04
Prep Date.....: 05/20/04 Analysis Date..: 05/20/04
Prep Batch #...: 4141090
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21-B

GC/MS Volatiles

Lot-Sample #...: A4E080216-005 Work Order #...: GFWCJ1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	118	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21-C

GC/MS Volatiles

Lot-Sample #...: A4E080216-006 Work Order #...: GFWCK1AA Matrix.....: WG
Date Sampled...: 05/07/04 09:00 Date Received..: 05/08/04
Prep Date.....: 05/20/04 Analysis Date..: 05/20/04
Prep Batch #...: 4141090
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21-C

GC/MS Volatiles

Lot-Sample #...: A4E080216-006 **Work Order #...:** GFWCK1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	116	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-8-A

GC/MS Volatiles

Lot-Sample #...: A4E080216-007 Work Order #...: GFWCN1AA Matrix.....: WG
Date Sampled...: 05/07/04 09:25 Date Received..: 05/08/04
Prep Date.....: 05/20/04 Analysis Date..: 05/20/04
Prep Batch #...: 4141090
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-8-A

GC/MS Volatiles

Lot-Sample #...: A4E080216-007 Work Order #...: GFWCN1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	113	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-8-B

GC/MS Volatiles

Lot-Sample #...: A4E080216-008 Work Order #...: GFWCQ1AA Matrix.....: WG
Date Sampled...: 05/07/04 09:30 Date Received..: 05/08/04
Prep Date.....: 05/20/04 Analysis Date..: 05/20/04
Prep Batch #...: 4141090
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-8-B

GC/MS Volatiles

Lot-Sample #...: A4E080216-008 Work Order #...: GFWCQ1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	115	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E080216 **Work Order #...:** GGH0R1AA **Matrix.....:** WATER
MB Lot-Sample #: A4E190000-100

Prep Date.....: 05/18/04
Analysis Date..: 05/18/04 **Prep Batch #...:** 4140100
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E080216 **Work Order #...:** GGH0R1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(73 - 122)
1,2-Dichloroethane-d4	115	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E080216 **Work Order #...:** GGMAA1AA **Matrix.....:** WATER
MB Lot-Sample #: A4E200000-090

Prep Date.....: 05/19/04
Analysis Date..: 05/19/04 **Prep Batch #...:** 4141090
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4E080216 **Work Order #...:** GGMAA1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	114	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A4E080216 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A4E110000-021 **Prep Batch #...:** 4132021						
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AT
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AU
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AE
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AA
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AF
		Dilution Factor: 1				
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AR
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AH
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: A4E080216 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A4E110000-021 **Prep Batch #...:** 4132021						
Cadmium	ND	0.0050	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AW
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AX
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1A1
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1A0
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1A2
		Dilution Factor: 1				
Silver	ND	0.10	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1AV
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	05/11-05/20/04	GF0DQ1A3
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E080216 **Work Order #...:** GGH0R1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4E190000-100 GGH0R1AD-LCSD
Prep Date.....: 05/18/04 **Analysis Date..:** 05/18/04
Prep Batch #...: 4140100
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**111**	**(63 - 130)**			**SW846 8260B**
	114	**(63 - 130)**	**2.5**	**(0-20)**	**SW846 8260B**
Trichloroethene	**100**	**(75 - 122)**			**SW846 8260B**
	102	**(75 - 122)**	**1.5**	**(0-20)**	**SW846 8260B**
Benzene	**101**	**(80 - 116)**			**SW846 8260B**
	104	**(80 - 116)**	**2.8**	**(0-20)**	**SW846 8260B**
Toluene	**107**	**(74 - 119)**			**SW846 8260B**
	107	**(74 - 119)**	**0.38**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**104**	**(76 - 117)**			**SW846 8260B**
	104	**(76 - 117)**	**0.82**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	101	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
	112	(61 - 128)
Toluene-d8	103	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	99	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E080216 **Work Order #...:** GGMAA1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4E200000-090 GGMAA1AD-LCSD
Prep Date.....: 05/19/04 **Analysis Date..:** 05/19/04
Prep Batch #...: 4141090
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**110**	**(63 - 130)**			**SW846 8260B**
	104	**(63 - 130)**	**5.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(75 - 122)**			**SW846 8260B**
	97	**(75 - 122)**	**1.9**	**(0-20)**	**SW846 8260B**
Benzene	**98**	**(80 - 116)**			**SW846 8260B**
	97	**(80 - 116)**	**1.4**	**(0-20)**	**SW846 8260B**
Toluene	**106**	**(74 - 119)**			**SW846 8260B**
	105	**(74 - 119)**	**0.68**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**101**	**(76 - 117)**			**SW846 8260B**
	102	**(76 - 117)**	**0.82**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
	107	(61 - 128)
Toluene-d8	103	(76 - 110)
	103	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	99	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A4E080216 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A4E110000-021 **Prep Batch #...:** 4132021					
Lead	88	(80 - 120)	SW846 6010B	05/11-05/20/04	GF0DQ1AJ
		Dilution Factor: 1			
Copper	91	(80 - 120)	SW846 6010B	05/11-05/20/04	GF0DQ1AM
		Dilution Factor: 1			
Nickel	90	(80 - 120)	SW846 6010B	05/11-05/20/04	GF0DQ1AN
		Dilution Factor: 1			
Zinc	91	(80 - 120)	SW846 6010B	05/11-05/20/04	GF0DQ1AQ
		Dilution Factor: 1			
Silver	97	(80 - 120)	SW846 6010B	05/11-05/20/04	GF0DQ1A8
		Dilution Factor: 1			
Cadmium	89	(80 - 120)	SW846 6010B	05/11-05/20/04	GF0DQ1A9
		Dilution Factor: 1			
Chromium	89	(80 - 120)	SW846 6010B	05/11-05/20/04	GF0DQ1CA
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A4E080216 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A4E110000-021 **Prep Batch #...:** 4132021					
Silver	97	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CC
Cadmium	89	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CD
Chromium	89	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CE
Lead	88	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CF
Copper	91	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CG
Nickel	90	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CH
Zinc	91	(80 - 120)	SW846 6010B Dilution Factor: 1	05/11-05/20/04	GF0DQ1CJ

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4E080216 **Work Order #...:** GFWAT1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A4E080216-001 GFWAT1AD-MSD
Date Sampled...: 05/07/04 07:30 **Date Received..:** 05/08/04
Prep Date.....: 05/19/04 **Analysis Date..:** 05/19/04
Prep Batch #...: 4140100
Dilution Factor: 9.09

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	105	**(62 - 130)**	**7.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**68**	**(62 - 130)**			**SW846 8260B**
	84	**(62 - 130)**	**4.0**	**(0-20)**	**SW846 8260B**
Benzene	**95**	**(78 - 118)**			**SW846 8260B**
	100	**(78 - 118)**	**5.4**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(70 - 119)**			**SW846 8260B**
	100	**(70 - 119)**	**4.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**91**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**5.3**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
	114	(61 - 128)
Toluene-d8	99	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A4E080216 **Matrix.....:** WATER
Date Sampled...: 05/06/04 11:00 **Date Received..:** 05/07/04

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A4E070298-001 **Prep Batch #...:** 4132021							
Cadmium	87	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601CC
	91	(75 - 125)	3.9	(0-20)	SW846 6010B	05/11-05/20/04	GFR601CD
		Dilution Factor: 1					
Chromium	90	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601CF
	93	(75 - 125)	3.1	(0-20)	SW846 6010B	05/11-05/20/04	GFR601CG
		Dilution Factor: 1					
Copper	91	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601AX
	95	(75 - 125)	3.9	(0-20)	SW846 6010B	05/11-05/20/04	GFR601A0
		Dilution Factor: 1					
Lead	87	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601AQ
	91	(75 - 125)	4.3	(0-20)	SW846 6010B	05/11-05/20/04	GFR601AR
		Dilution Factor: 1					
Nickel	90	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601A1
	93	(75 - 125)	3.6	(0-20)	SW846 6010B	05/11-05/20/04	GFR601A2
		Dilution Factor: 1					
Silver	95	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601A8
	100	(75 - 125)	4.3	(0-20)	SW846 6010B	05/11-05/20/04	GFR601A9
		Dilution Factor: 1					
Zinc	92	(75 - 125)			SW846 6010B	05/11-05/20/04	GFR601A5
	95	(75 - 125)	2.3	(0-20)	SW846 6010B	05/11-05/20/04	GFR601A6
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 20492

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

○ STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

⊗ Alternate Laboratory Name/Location
STL Canton
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
TK Louisville		GA
STL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Roger Toth		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Rhonda Quinn	770-421-3400	
CLIENT NAME	CLIENT E-MAIL	
MACTEC		
CLIENT ADDRESS		
3200 Town Point Dr.		
COMPANY CONTRACTING THIS WORK (if applicable)		

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX TYPE: AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	REQUIRED ANALYSIS: VOCs 8260B	Total Metals 6010B	Diss. Metals 6010B								NUMBER OF CONTAINERS SUBMITTED: HCl	HNO3								REMARKS
5.7.04	730	MW-5		X				3	X SD	X SD																	
	1200	MT-504		X					1	1																	
	830	MW-5		X					1	1																	
	850	MW-21-A		X				3																			
	855	MW-21-B		X				3																			
	900	MW-21-C		X				3																			
	925	MW-8-A		X				3																			
	930	MW-8-B		X				3																			
		TEMP BLANK								1																	

PAGE 1 OF 1

STANDARD REPORT DELIVERY ⊗
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REMARKS
*Filter dissolved metals upon reciept

*Metals For Analysis: Co, Ce, Cu, Pb, Ni, Ag, Zn

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
S. Tucker	5.7.04	1510						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL SAVANNAH LOG NO.	LABORATORY REMARKS
David A Benson	5-8-04	10:05	YES ⊗ NO ○			

SAMPLE SUMMARY

A4J140208

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GTK2E	001	MW-21	10/12/04	15:00
GTK2H	002	MW-8	10/12/04	15:20
GTK2K	003	MW-22	10/12/04	15:35
GTK2M	004	MW-1	10/12/04	15:50
GTK2P	005	MW-23	10/12/04	16:00
GTK2Q	006	MW-2	10/12/04	16:10
GTK2R	007	MW-3	10/12/04	16:20
GTK2V	008	MW-4	10/12/04	16:30
GTK2W	009	MW-10	10/12/04	16:45
GTK20	010	MW-17	10/12/04	17:10
GTK22	011	MW-18	10/12/04	17:20
GTK23	012	MW-5	10/12/04	17:30
GTK26	013	DUPGW1004	10/12/04	
GTK4J	014	MW-19	10/12/04	17:40
GTK4K	015	MW-14	10/12/04	17:50
GTK4M	016	TRIP BLANK	10/12/04	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
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North Canton, OH 44720

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ANALYTICAL REPORT

PROJECT NO. 1200002050.403

TK-LOUISVILLE (GA)

Lot #: A4J140208

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

November 1, 2004

CASE NARRATIVE

A4J140208

The following report contains the analytical results for fifteen water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc.from the TK-Louisville (GA) Site, project number 1200002050.403. The samples were received October 14, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on October 28, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.7°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The matrix spike/matrix spike duplicate(s) for MW-19 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL), the analytes were greater than 10 times the blank level for organics or 20 times for inorganics, or the associated sample(s) must be ND except for the common laboratory contaminants indicated below.

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

** for analyses run on TJA Trace ICP only*

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria does not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike for inorganics.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample are spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If the surrogate recoveries are outside criteria for environmental or MS/MSD samples, the batch is acceptable if the Method Blank, LCS, and LCSD surrogate recoveries are within acceptance criteria. The only exception is if the surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank and the associated sample(s) are ND, the batch is acceptable. If the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB and PAH methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A4J140208

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-3 10/12/04 16:20 007				
Chloroform	7.7	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	12	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	13	5.0	ug/L	SW846 8260B
Trichloroethene	15	5.0	ug/L	SW846 8260B
MW-10 10/12/04 16:45 009				
Trichloroethene	6.1	5.0	ug/L	SW846 8260B
MW-5 10/12/04 17:30 012				
Trichloroethene	320	42	ug/L	SW846 8260B
DUPGW1004 10/12/04 013				
Trichloroethene	320	42	ug/L	SW846 8260B
MW-19 10/12/04 17:40 014				
Trichloroethene	14000	1700	ug/L	SW846 8260B
MW-14 10/12/04 17:50 015				
Trichloroethene	1900	310	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A4J140208

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21

GC/MS Volatiles

Lot-Sample #...: A4J140208-001 Work Order #...: GTK2E1AA Matrix.....: WG
Date Sampled...: 10/12/04 15:00 Date Received..: 10/14/04
Prep Date.....: 10/22/04 Analysis Date..: 10/22/04
Prep Batch #...: 4296358
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-21

GC/MS Volatiles

Lot-Sample #...: A4J140208-001 Work Order #...: GTK2E1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-8

GC/MS Volatiles

Lot-Sample #...: A4J140208-002 Work Order #...: GTK2H1AA Matrix.....: WG
Date Sampled...: 10/12/04 15:20 Date Received..: 10/14/04
Prep Date.....: 10/22/04 Analysis Date..: 10/22/04
Prep Batch #...: 4296358
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-8

GC/MS Volatiles

Lot-Sample #...: A4J140208-002 Work Order #...: GTK2H1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	81	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22

GC/MS Volatiles

Lot-Sample #...: A4J140208-003 Work Order #...: GTK2K1AA Matrix.....: WG
Date Sampled...: 10/12/04 15:35 Date Received..: 10/14/04
Prep Date.....: 10/22/04 Analysis Date..: 10/22/04
Prep Batch #...: 4296358
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-22

GC/MS Volatiles

Lot-Sample #...: A4J140208-003 Work Order #...: GTK2K1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...:	A4J140208-004	**Work Order #...:**	GTK2M1AA	**Matrix.....:**	WG
Date Sampled...:	10/12/04 15:50	**Date Received..:**	10/14/04		
Prep Date.....:	10/22/04	**Analysis Date..:**	10/22/04		
Prep Batch #...:	4296358				
Dilution Factor:	1	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: A4J140208-004 **Work Order #...:** GTK2M1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23

GC/MS Volatiles

Lot-Sample #...: A4J140208-005 **Work Order #...:** GTK2P1AA **Matrix.....:** WG
Date Sampled...: 10/12/04 16:00 **Date Received..:** 10/14/04
Prep Date.....: 10/22/04 **Analysis Date..:** 10/22/04
Prep Batch #...: 4296358
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-23

GC/MS Volatiles

Lot-Sample #...: A4J140208-005 Work Order #...: GTK2P1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: A4J140208-006 **Work Order #...:** GTK2Q1AA **Matrix.....:** WG
Date Sampled...: 10/12/04 16:10 **Date Received..:** 10/14/04
Prep Date.....: 10/22/04 **Analysis Date..:** 10/22/04
Prep Batch #...: 4296358
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: A4J140208-006 Work Order #...: GTK2Q1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: A4J140208-007 Work Order #...: GTK2R1AA Matrix.....: WG
Date Sampled...: 10/12/04 16:20 Date Received..: 10/14/04
Prep Date.....: 10/22/04 Analysis Date..: 10/22/04
Prep Batch #...: 4296358
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	**7.7**	**5.0**	**ug/L**
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	**12**	**5.0**	**ug/L**
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	**13**	**5.0**	**ug/L**
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: A4J140208-007 Work Order #...: GTK2R1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**15**	**5.0**	**ug/L**
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: A4J140208-008 Work Order #...: GTK2V1AA Matrix.....: WG
Date Sampled...: 10/12/04 16:30 Date Received..: 10/14/04
Prep Date.....: 10/22/04 Analysis Date..: 10/22/04
Prep Batch #...: 4296358
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: A4J140208-008 Work Order #...: GTK2V1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10

GC/MS Volatiles

Lot-Sample #...: A4J140208-009 Work Order #...: GTK2W1AA Matrix.....: WG
Date Sampled...: 10/12/04 16:45 Date Received..: 10/14/04
Prep Date.....: 10/23/04 Analysis Date..: 10/23/04
Prep Batch #...: 4299481
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10

GC/MS Volatiles

Lot-Sample #...: A4J140208-009 Work Order #...: GTK2W1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**6.1**	**5.0**	**ug/L**
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17

GC/MS Volatiles

Lot-Sample #...: A4J140208-010 Work Order #...: GTK201AA Matrix.....: WG
Date Sampled...: 10/12/04 17:10 Date Received..: 10/14/04
Prep Date.....: 10/23/04 Analysis Date..: 10/23/04
Prep Batch #...: 4299481
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-17

GC/MS Volatiles

Lot-Sample #...: A4J140208-010 Work Order #...: GTK201AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	81	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18

GC/MS Volatiles

Lot-Sample #...: A4J140208-011 Work Order #...: GTK221AA Matrix.....: WG
Date Sampled...: 10/12/04 17:20 Date Received..: 10/14/04
Prep Date.....: 10/23/04 Analysis Date..: 10/23/04
Prep Batch #...: 4299481
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-18

GC/MS Volatiles

Lot-Sample #...: A4J140208-011 Work Order #...: GTK221AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	114	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A4J140208-012 Work Order #...: GTK231AA Matrix.....: WG
Date Sampled...: 10/12/04 17:30 Date Received..: 10/14/04
Prep Date.....: 10/23/04 Analysis Date..: 10/23/04
Prep Batch #...: 4299481
Dilution Factor: 8.33 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	42	ug/L
Bromodichloromethane	ND	42	ug/L
Bromoform	ND	42	ug/L
Bromomethane	ND	42	ug/L
Carbon tetrachloride	ND	42	ug/L
Chlorobenzene	ND	42	ug/L
Chlorodibromomethane	ND	42	ug/L
Chloroethane	ND	42	ug/L
Chloroform	ND	42	ug/L
Chloromethane	ND	42	ug/L
Dibromomethane	ND	42	ug/L
1,2-Dichlorobenzene	ND	42	ug/L
1,3-Dichlorobenzene	ND	42	ug/L
1,4-Dichlorobenzene	ND	42	ug/L
Dichlorodifluoromethane	ND	42	ug/L
1,1-Dichloroethane	ND	42	ug/L
1,2-Dichloroethane	ND	42	ug/L
cis-1,2-Dichloroethene	ND	42	ug/L
trans-1,2-Dichloroethene	ND	42	ug/L
1,1-Dichloroethene	ND	42	ug/L
1,2-Dichloropropane	ND	42	ug/L
1,3-Dichloropropane	ND	42	ug/L
2,2-Dichloropropane	ND	42	ug/L
1,1-Dichloropropene	ND	42	ug/L
1,4-Dioxane	ND	2100	ug/L
Ethylbenzene	ND	42	ug/L
Hexachlorobutadiene	ND	42	ug/L
Isopropylbenzene	ND	42	ug/L
Methylene chloride	ND	42	ug/L
Naphthalene	ND	42	ug/L
Styrene	ND	42	ug/L
1,1,1,2-Tetrachloroethane	ND	42	ug/L
1,1,2,2-Tetrachloroethane	ND	42	ug/L
Tetrachloroethene	ND	42	ug/L
Toluene	ND	42	ug/L
1,2,4-Trichloro-benzene	ND	42	ug/L
1,1,1-Trichloroethane	ND	42	ug/L
1,1,2-Trichloroethane	ND	42	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A4J140208-012 **Work Order #...:** GTK231AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**320**	**42**	**ug/L**
Trichlorofluoromethane	ND	42	ug/L
1,2,3-Trichloropropane	ND	42	ug/L
Vinyl chloride	ND	17	ug/L
Xylenes (total)	ND	42	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: DUPGW1004

GC/MS Volatiles

Lot-Sample #...: A4J140208-013	**Work Order #...:** GTK261AA		**Matrix.....:** WQ
Date Sampled...: 10/12/04	**Date Received..:** 10/14/04		
Prep Date.....: 10/23/04	**Analysis Date..:** 10/23/04		
Prep Batch #...: 4299481			
Dilution Factor: 8.33	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	42	ug/L
Bromodichloromethane	ND	42	ug/L
Bromoform	ND	42	ug/L
Bromomethane	ND	42	ug/L
Carbon tetrachloride	ND	42	ug/L
Chlorobenzene	ND	42	ug/L
Chlorodibromomethane	ND	42	ug/L
Chloroethane	ND	42	ug/L
Chloroform	ND	42	ug/L
Chloromethane	ND	42	ug/L
Dibromomethane	ND	42	ug/L
1,2-Dichlorobenzene	ND	42	ug/L
1,3-Dichlorobenzene	ND	42	ug/L
1,4-Dichlorobenzene	ND	42	ug/L
Dichlorodifluoromethane	ND	42	ug/L
1,1-Dichloroethane	ND	42	ug/L
1,2-Dichloroethane	ND	42	ug/L
cis-1,2-Dichloroethene	ND	42	ug/L
trans-1,2-Dichloroethene	ND	42	ug/L
1,1-Dichloroethene	ND	42	ug/L
1,2-Dichloropropane	ND	42	ug/L
1,3-Dichloropropane	ND	42	ug/L
2,2-Dichloropropane	ND	42	ug/L
1,1-Dichloropropene	ND	42	ug/L
1,4-Dioxane	ND	2100	ug/L
Ethylbenzene	ND	42	ug/L
Hexachlorobutadiene	ND	42	ug/L
Isopropylbenzene	ND	42	ug/L
Methylene chloride	ND	42	ug/L
Naphthalene	ND	42	ug/L
Styrene	ND	42	ug/L
1,1,1,2-Tetrachloroethane	ND	42	ug/L
1,1,2,2-Tetrachloroethane	ND	42	ug/L
Tetrachloroethene	ND	42	ug/L
Toluene	ND	42	ug/L
1,2,4-Trichloro-benzene	ND	42	ug/L
1,1,1-Trichloroethane	ND	42	ug/L
1,1,2-Trichloroethane	ND	42	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: DUPGW1004

GC/MS Volatiles

Lot-Sample #...: A4J140208-013 Work Order #...: GTK261AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**320**	**42**	**ug/L**
Trichlorofluoromethane	ND	42	ug/L
1,2,3-Trichloropropane	ND	42	ug/L
Vinyl chloride	ND	17	ug/L
Xylenes (total)	ND	42	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

GC/MS Volatiles

Lot-Sample #...: A4J140208-014 Work Order #...: GTK4J1AA Matrix.....: WG
Date Sampled...: 10/12/04 17:40 Date Received..: 10/14/04
Prep Date.....: 10/23/04 Analysis Date..: 10/23/04
Prep Batch #...: 4299481
Dilution Factor: 333.33 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1700	ug/L
Bromodichloromethane	ND	1700	ug/L
Bromoform	ND	1700	ug/L
Bromomethane	ND	1700	ug/L
Carbon tetrachloride	ND	1700	ug/L
Chlorobenzene	ND	1700	ug/L
Chlorodibromomethane	ND	1700	ug/L
Chloroethane	ND	1700	ug/L
Chloroform	ND	1700	ug/L
Chloromethane	ND	1700	ug/L
Dibromomethane	ND	1700	ug/L
1,2-Dichlorobenzene	ND	1700	ug/L
1,3-Dichlorobenzene	ND	1700	ug/L
1,4-Dichlorobenzene	ND	1700	ug/L
Dichlorodifluoromethane	ND	1700	ug/L
1,1-Dichloroethane	ND	1700	ug/L
1,2-Dichloroethane	ND	1700	ug/L
cis-1,2-Dichloroethene	ND	1700	ug/L
trans-1,2-Dichloroethene	ND	1700	ug/L
1,1-Dichloroethene	ND	1700	ug/L
1,2-Dichloropropane	ND	1700	ug/L
1,3-Dichloropropane	ND	1700	ug/L
2,2-Dichloropropane	ND	1700	ug/L
1,1-Dichloropropene	ND	1700	ug/L
1,4-Dioxane	ND	83000	ug/L
Ethylbenzene	ND	1700	ug/L
Hexachlorobutadiene	ND	1700	ug/L
Isopropylbenzene	ND	1700	ug/L
Methylene chloride	ND	1700	ug/L
Naphthalene	ND	1700	ug/L
Styrene	ND	1700	ug/L
1,1,1,2-Tetrachloroethane	ND	1700	ug/L
1,1,2,2-Tetrachloroethane	ND	1700	ug/L
Tetrachloroethene	ND	1700	ug/L
Toluene	ND	1700	ug/L
1,2,4-Trichloro-benzene	ND	1700	ug/L
1,1,1-Trichloroethane	ND	1700	ug/L
1,1,2-Trichloroethane	ND	1700	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

GC/MS Volatiles

Lot-Sample #...: A4J140208-014 Work Order #...: GTK4J1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**14000**	**1700**	**ug/L**
Trichlorofluoromethane	ND	1700	ug/L
1,2,3-Trichloropropane	ND	1700	ug/L
Vinyl chloride	ND	670	ug/L
Xylenes (total)	ND	1700	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14

GC/MS Volatiles

Lot-Sample #...: A4J140208-015 Work Order #...: GTK4K1AA Matrix.....: WG
Date Sampled...: 10/12/04 17:50 Date Received..: 10/14/04
Prep Date.....: 10/24/04 Analysis Date..: 10/24/04
Prep Batch #...: 4299481
Dilution Factor: 62.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	310	ug/L
Bromodichloromethane	ND	310	ug/L
Bromoform	ND	310	ug/L
Bromomethane	ND	310	ug/L
Carbon tetrachloride	ND	310	ug/L
Chlorobenzene	ND	310	ug/L
Chlorodibromomethane	ND	310	ug/L
Chloroethane	ND	310	ug/L
Chloroform	ND	310	ug/L
Chloromethane	ND	310	ug/L
Dibromomethane	ND	310	ug/L
1,2-Dichlorobenzene	ND	310	ug/L
1,3-Dichlorobenzene	ND	310	ug/L
1,4-Dichlorobenzene	ND	310	ug/L
Dichlorodifluoromethane	ND	310	ug/L
1,1-Dichloroethane	ND	310	ug/L
1,2-Dichloroethane	ND	310	ug/L
cis-1,2-Dichloroethene	ND	310	ug/L
trans-1,2-Dichloroethene	ND	310	ug/L
1,1-Dichloroethene	ND	310	ug/L
1,2-Dichloropropane	ND	310	ug/L
1,3-Dichloropropane	ND	310	ug/L
2,2-Dichloropropane	ND	310	ug/L
1,1-Dichloropropene	ND	310	ug/L
1,4-Dioxane	ND	16000	ug/L
Ethylbenzene	ND	310	ug/L
Hexachlorobutadiene	ND	310	ug/L
Isopropylbenzene	ND	310	ug/L
Methylene chloride	ND	310	ug/L
Naphthalene	ND	310	ug/L
Styrene	ND	310	ug/L
1,1,1,2-Tetrachloroethane	ND	310	ug/L
1,1,2,2-Tetrachloroethane	ND	310	ug/L
Tetrachloroethene	ND	310	ug/L
Toluene	ND	310	ug/L
1,2,4-Trichloro-benzene	ND	310	ug/L
1,1,1-Trichloroethane	ND	310	ug/L
1,1,2-Trichloroethane	ND	310	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-14

GC/MS Volatiles

Lot-Sample #...: A4J140208-015 **Work Order #...:** GTK4K1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**1900**	**310**	**ug/L**
Trichlorofluoromethane	ND	310	ug/L
1,2,3-Trichloropropane	ND	310	ug/L
Vinyl chloride	ND	120	ug/L
Xylenes (total)	ND	310	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4J140208-016 **Work Order #...:** GTK4M1AA **Matrix.....:** WQ
Date Sampled...: 10/12/04 **Date Received..:** 10/14/04
Prep Date.....: 10/24/04 **Analysis Date..:** 10/24/04
Prep Batch #...: 4299481
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4J140208-016 Work Order #...: GTK4M1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	110	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J140208 **Work Order #...:** GT9RT1AA **Matrix.....:** WATER
MB Lot-Sample #: A4J220000-358

Prep Date.....: 10/21/04
Analysis Date..: 10/21/04 **Prep Batch #...:** 4296358
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J140208 **Work Order #...:** GT9RT1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J140208 **Work Order #...:** GVF271AA **Matrix.....:** WATER
MB Lot-Sample #: A4J250000-481

Prep Date.....: 10/23/04
Analysis Date..: 10/23/04 **Prep Batch #...:** 4299481
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J140208 **Work Order #...:** GVF271AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(73 - 122)
1,2-Dichloroethane-d4	110	(61 - 128)
Toluene-d8	108	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J140208 **Work Order #...:** GT9RT1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4J220000-358 GT9RT1AD-LCSD
Prep Date.....: 10/21/04 **Analysis Date..:** 10/21/04
Prep Batch #...: 4296358
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**83**	**(80 - 116)**			**SW846 8260B**
	82	**(80 - 116)**	**1.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**93**	**(76 - 117)**			**SW846 8260B**
	92	**(76 - 117)**	**0.98**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**95**	**(63 - 130)**			**SW846 8260B**
	96	**(63 - 130)**	**1.5**	**(0-20)**	**SW846 8260B**
Toluene	**93**	**(74 - 119)**			**SW846 8260B**
	93	**(74 - 119)**	**0.040**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(75 - 122)**			**SW846 8260B**
	98	**(75 - 122)**	**1.3**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	84	(61 - 128)
	84	(61 - 128)
Toluene-d8	101	(76 - 110)
	103	(76 - 110)
4-Bromofluorobenzene	103	(74 - 116)
	105	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J140208 **Work Order #...:** GVF271AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4J250000-481 GVF271AD-LCSD
Prep Date.....: 10/23/04 **Analysis Date..:** 10/23/04
Prep Batch #...: 4299481
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**97**	**(80 - 116)**			**SW846 8260B**
	96	**(80 - 116)**	**1.7**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	95	**(76 - 117)**	**1.4**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**96**	**(63 - 130)**			**SW846 8260B**
	92	**(63 - 130)**	**4.4**	**(0-20)**	**SW846 8260B**
Toluene	**103**	**(74 - 119)**			**SW846 8260B**
	99	**(74 - 119)**	**3.4**	**(0-20)**	**SW846 8260B**
Trichloroethene	**95**	**(75 - 122)**			**SW846 8260B**
	93	**(75 - 122)**	**2.9**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
	107	(61 - 128)
Toluene-d8	105	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	106	(74 - 116)
	101	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J140208 **Work Order #...:** GTGHH1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A4J130178-001 GTGHH1AD-MSD
Date Sampled...: 10/11/04 10:30 **Date Received..:** 10/13/04
Prep Date.....: 10/21/04 **Analysis Date..:** 10/21/04
Prep Batch #...: 4296358
Dilution Factor: 9.52

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**85**	**(78 - 118)**			**SW846 8260B**
	81	**(78 - 118)**	**5.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**90**	**(76 - 117)**			**SW846 8260B**
	88	**(76 - 117)**	**2.4**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**101**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**4.2**	**(0-20)**	**SW846 8260B**
Toluene	**92**	**(70 - 119)**			**SW846 8260B**
	89	**(70 - 119)**	**3.2**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(62 - 130)**			**SW846 8260B**
	85	**(62 - 130)**	**4.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
	85	(61 - 128)
Toluene-d8	98	(76 - 110)
	100	(76 - 110)
4-Bromofluorobenzene	102	(74 - 116)
	102	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J140208 **Work Order #...:** GTK4J1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A4J140208-014 GTK4J1AD-MSD
Date Sampled...: 10/12/04 17:40 **Date Received..:** 10/14/04
Prep Date.....: 10/23/04 **Analysis Date..:** 10/23/04
Prep Batch #...: 4299481
Dilution Factor: 333.33

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	92	(78 - 118)			**SW846 8260B**
	97	(78 - 118)	4.8	(0-20)	**SW846 8260B**
Chlorobenzene	87	(76 - 117)			**SW846 8260B**
	92	(76 - 117)	6.1	(0-20)	**SW846 8260B**
1,1-Dichloroethene	96	(62 - 130)			**SW846 8260B**
	98	(62 - 130)	2.0	(0-20)	**SW846 8260B**
Toluene	92	(70 - 119)			**SW846 8260B**
	98	(70 - 119)	6.2	(0-20)	**SW846 8260B**
Trichloroethene	54 a	(62 - 130)			**SW846 8260B**
	66	(62 - 130)	2.6	(0-20)	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	106	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
	110	(61 - 128)
Toluene-d8	94	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)
	99	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client: MACTEC ENGINEERING AND CONSULTING	Project Manager: RHONDA QUINN	Date: 10/13/04	Chain of Custody Number: 124184
Address: 3200 TOWN POINT DR NW	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 2
City: KENNESAW / State: GA / Zip Code: 30144	Site Contact:	Lab Contact:	
Project Name and Location (State): TK - LOUISVILLE (GA)	Carrier/Waybill Number: FED EX # 846174686651		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B VOCs	* SITE SPECIFIC	Special Instructions/ Conditions of Receipt
MW-21	10/12/04	1500		X						X			3		
MW-8		1520		X						X			3		
MW-22		1535		X						X			3		
MW-1		1550		X						X			3		
MW-23		1600		X						X			3		
MW-2		1610		X						X			3		
MW-3		1620		X						X			3		
MW-4		1630		X						X			3		
MW-10		1645		X						X			3		
MW-17		1710		X						X			3		
MW-18		1720		X						X			3		
MW-5		1730		X						X			2		

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☑ Other NORMAL TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	10/13/04	1700	1. Received By	10/14/04	10:10
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

51

STL-4124 (0901)

Client: MACTEC ENGINEERING AND CONSULTING	Project Manager: RHONDA QUINN	Date: 10/13/04	Chain of Custody Number: 124187
Address: 3200 TOWN POINT DR. NW	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 2 of 2
City: KENNESAW / State: GA / Zip Code: 30144	Site Contact:	Lab Contact:	
Project Name and Location (State): TVL-LOUISVILLE (GA)	Carrier/Waybill Number: FED EX # 846174686651		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: # 8260B VOCs	* SITE SPECIFIC	Special Instructions/ Conditions of Receipt
DUP6W1004	10/12/04	0000		X						X			2		
MW-19		1740		X						X			3		
MW-14		1750		X						X			3		
TRIP BLANK	↓	/		X									3		

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other NORMAL TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	10/13/04	1700	1. Received By	10/14/04	10:10
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SEVERN TRENT STL

STL Savannah 5102 LaRoche Avenue - Savannah GA 31404 Telephone:(912) 354-7858 Fax:(912) 351-3673

Sample Summary

Order: S449879
Date Received: 10/14/2004

Client: STL North Canton
Project: SR063214

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
GTF9K (A4J130147-1) MW-24	S449879*1	Liquid	10/12/2004
GTF9X (A4J130147-2) DUP 10	S449879*2	Liquid	10/12/2004
GTF90 (A4J130147-3) TRIP BLANK	S449879*3	Liquid	10/12/2004

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 1200002050.403

THERMO KING LOUISVILLE,GA

Lot #: A4J130147

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

October 29, 2004

CASE NARRATIVE

A4J130147

The following report contains the analytical results for two water samples and one quality control sample submitted to STL North Canton by Mactec Engineering & Consulting Inc from the Thermo King Louisville,GA Site, project number 1200002050.403. The samples were received October 13, 2004, according to documented sample acceptance procedures.

The GC/MS Volatile analyses were performed at STL's Savannah, GA laboratory.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on October 14, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.5°C.

SEVERN TRENT STL

STL SAVANNAH DATA

SEVERN TRENT STL

STL Savannah 5102 LaRoche Avenue - Savannah GA 31404 Telephone:(912) 354-7858 Fax:(912) 351-3673

Analytical Report

For: Mr. Roger Toth
STL North Canton
4101 Shuffel Drive
North Canton, OH 44720
CC:

Order Number: S449879
SDG Number:
Client Project ID:
Project: SR063214
Report Date: 10/18/2004
Sampled By: Client
Sample Received Date: 10/14/2004
Requisition Number:
Purchase Order: SR063214

Gloria D. Fulwood

Gloria D. Fulwood, Project Manager
gfulwood@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
49879-1	GTF9K (A4J130147-1)	Liquid	10/14/04	10/12/04	
49879-2	GTF9X (A4J130147-2)	Liquid	10/14/04	10/12/04	
49879-3	GTF90 (A4J130147-3)	Liquid	10/14/04	10/12/04	

Parameter	Units	Lab Sample IDs 49879-1	49879-2	49879-3
Volatiles by GC/MS (8260)				
Chloromethane	ug/l	<1.0	<1.0	<1.0
Bromomethane (Methyl bromide)	ug/l	<1.0	<1.0	<1.0
Vinyl chloride	ug/l	<1.0	<1.0	<1.0
Chloroethane	ug/l	<1.0	<1.0	<1.0
Methylene chloride (Dichloromethane)	ug/l	<5.0	<5.0	<5.0
1,1-Dichloroethene	ug/l	<1.0	<1.0	<1.0
1,1-Dichloroethane	ug/l	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/l	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/l	<1.0	<1.0	<1.0
Chloroform	ug/l	<1.0	<1.0	<1.0
1,2-Dichloroethane	ug/l	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	ug/l	<1.0	<1.0	<1.0
Carbon tetrachloride	ug/l	<1.0	<1.0	<1.0
Bromodichloromethane	ug/l	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	ug/l	<1.0	<1.0	<1.0
1,2-Dichloropropane	ug/l	<1.0	<1.0	<1.0
Trichloroethene	ug/l	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	ug/l	<1.0	<1.0	<1.0
Benzene	ug/l	<1.0	<1.0	<1.0
Bromoform	ug/l	<1.0	<1.0	<1.0
Tetrachloroethene	ug/l	<1.0	<1.0	<1.0
Toluene	ug/l	<1.0	<1.0	<1.0
Chlorobenzene	ug/l	<1.0	<1.0	<1.0
Ethylbenzene	ug/l	<1.0	<1.0	<1.0
Styrene	ug/l	<1.0	<1.0	<1.0
Xylenes, Total	ug/l	<2.0	<2.0	<2.0
Dibromomethane	ug/l	<1.0	<1.0	<1.0

SEVERN TRENT STL

STL Savannah 5102 LaRoche Avenue - Savannah GA 31404 Telephone:(912) 354-7858 Fax:(912) 351-3673

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
49879-1	GTF9K (A4J130147-1)	Liquid	10/14/04	10/12/04	
49879-2	GTF9X (A4J130147-2)	Liquid	10/14/04	10/12/04	
49879-3	GTF90 (A4J130147-3)	Liquid	10/14/04	10/12/04	

Parameter	Units	Lab Sample IDs 49879-1	49879-2	49879-3
Volatiles by GC/MS (8260)				
1,2-Dichlorobenzene	ug/l	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	ug/l	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	ug/l	<1.0	<1.0	<1.0
Dichlorodifluoromethane	ug/l	<1.0	<1.0	<1.0
1,3-Dichloropropane	ug/l	<1.0	<1.0	<1.0
2,2 Dichloropropane	ug/l	<1.0	<1.0	<1.0
1,1 Dichloropropene	ug/l	<1.0	<1.0	<1.0
Hexachlorobutadiene	ug/l	<1.0	<1.0	<1.0
Isopropylbenzene	ug/l	<1.0	<1.0	<1.0
Naphthalene	ug/l	<5.0	<5.0	<5.0
1,1,1,2-Tetrachloroethane	ug/l	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	ug/l	<1.0	<1.0	<1.0
Trichlorofluoromethane	ug/l	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	ug/l	<1.0	<1.0	<1.0
Chlorodibromomethane	ug/l	<1.0	<1.0	<1.0
Surrogate - Toluene-d8 *	%	106 %	106 %	108 %
Surrogate - 4-Bromofluorobenzene *	%	100 %	104 %	100 %
Surrogate - Dibromofluoromethane *	%	114 %	112 %	112 %
Dilution Factor		1	1	1
Prep Date		10/18/04	10/18/04	10/18/04
Analysis Date		10/18/04	10/18/04	10/18/04
Batch ID		1P1018	1P1018	1P1018

SEVERN TRENT STL

STL Savannah 5102 LaRoche Avenue - Savannah GA 31404 Telephone:(912) 354-7858 Fax:(912) 351-3673

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
49879-4	Method Blank	Liquid	10/14/04		
49879-5	Lab Control Standard % Recovery	Liquid	10/14/04		
49879-6	LCS Accuracy Control Limit (%R)	Liquid	10/14/04		

Parameter	Units	Lab Sample IDs 49879-4	49879-5	49879-6
Volatiles by GC/MS (8260)				
Chloromethane	ug/l	<1.0		
Bromomethane (Methyl bromide)	ug/l	<1.0		
Vinyl chloride	ug/l	<1.0		
Chloroethane	ug/l	<1.0		
Methylene chloride (Dichloromethane)	ug/l	<5.0		
1,1-Dichloroethene	ug/l	<1.0	100 %	53-144 %
1,1-Dichloroethane	ug/l	<1.0		
cis-1,2-Dichloroethene	ug/l	<1.0		
trans-1,2-Dichloroethene	ug/l	<1.0		
Chloroform	ug/l	<1.0		
1,2-Dichloroethane	ug/l	<1.0		
1,1,1-Trichloroethane	ug/l	<1.0		
Carbon tetrachloride	ug/l	<1.0		
Bromodichloromethane	ug/l	<1.0		
1,1,2,2-Tetrachloroethane	ug/l	<1.0		
1,2-Dichloropropane	ug/l	<1.0		
Trichloroethene	ug/l	<1.0	96 %	70-123 %
1,1,2-Trichloroethane	ug/l	<1.0		
Benzene	ug/l	<1.0	92 %	69-128 %
Bromoform	ug/l	<1.0		
Tetrachloroethene	ug/l	<1.0		
Toluene	ug/l	<1.0	92 %	71-129 %
Chlorobenzene	ug/l	<1.0	94 %	72-126 %
Ethylbenzene	ug/l	<1.0		
Styrene	ug/l	<1.0		
Xylenes, Total	ug/l	<2.0		
Dibromomethane	ug/l	<1.0		

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
49879-4	Method Blank	Liquid	10/14/04		
49879-5	Lab Control Standard % Recovery	Liquid	10/14/04		
49879-6	LCS Accuracy Control Limit (%R)	Liquid	10/14/04		

Parameter	Units	Lab Sample IDs 49879-4	49879-5	49879-6
Volatiles by GC/MS (8260)				
1,2-Dichlorobenzene	ug/l	<1.0		
1,3-Dichlorobenzene	ug/l	<1.0		
1,4-Dichlorobenzene	ug/l	<1.0		
Dichlorodifluoromethane	ug/l	<1.0		
1,3-Dichloropropane	ug/l	<1.0		
2,2 Dichloropropane	ug/l	<1.0		
1,1 Dichloropropene	ug/l	<1.0		
Hexachlorobutadiene	ug/l	<1.0		
Isopropylbenzene	ug/l	<1.0		
Naphthalene	ug/l	<5.0		
1,1,1,2-Tetrachloroethane	ug/l	<1.0		
1,2,4-Trichlorobenzene	ug/l	<1.0		
Trichlorofluoromethane	ug/l	<1.0		
1,2,3-Trichloropropane	ug/l	<1.0		
Chlorodibromomethane	ug/l	<1.0		
Surrogate - Toluene-d8 *	%	104 %	94 %	74-122 %
Surrogate - 4-Bromofluorobenzene *	%	106 %	96 %	70-119 %
Surrogate - Dibromofluoromethane *	%	110 %	100 %	68-129 %
Dilution Factor		1	1	
Prep Date		10/18/04	10/18/04	
Analysis Date		10/18/04	10/18/04	
Batch ID		1P1018	1P1018	

STL Savannah 5102 LaRoche Avenue - Savannah GA 31404 Telephone:(912) 354-7858 Fax:(912) 351-3673

Order Number: S449879

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

Severn Trent Laboratories, Inc.

Laboratory **STL SL Savannah**
5102 LaRoche Avenue
Savannah, GA 31404

SAMPLE ANALYSIS REQUISTION

Lab Request SR063214

Report Package: **Report**

Need Analytical Report 2004-10-18

Client Code: 63038

Project Manager: ROGER TOTH

Sample I.D.	Work Order Number	Client Sample ID	Sampling Date	Analysis Required
A4J130147-1	GTF9K	MW-24	2004-10-12	WATER, 8260B, to Savannah c/o G. Fulwood
A4J130147-2	GTF9X	DUP 10	2004-10-12	WATER, 8260B, to Savannah c/o G. Fulwood
A4J130147-3	GTF90	TRIP BLANK	2004-10-12	WATER, 8260B, to Savannah c/o G. Fulwood

Rush due 10/18/04 !.

Please use Client Sample ID for report

Call ROGER TOTH with questions at 330-497-9396

Shipping Method: DHL

TEMP. 3.0

Need detection limit and analysis date included in report.

Please send a signed copy of this form with the report at completion of analysis.

Relinquished by: [signature] Date/Time: 10/13/04 1225PM

Relinquished by: _____ Date/Time: _____

Received for lab by: M. Duell Date/Time: 10/14/04 1200

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISTION

11

S/49879

SAMPLE SUMMARY

A4J140201

WO#	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GTKX01	001	MW-4	10/13/04	09:25
GTKX81	002	MW-3	10/13/04	10:00
GTKX0C	003	MW-10	10/13/04	12:00
GTKX0P	004	MW-1	10/13/04	12:05
GTK04	005	MW-5	10/13/04	15:00
GTK07	006	DUPGW1004	10/13/04	00:00
GTK1C	007	MW-19	10/13/04	15:25

NOTE (S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results of the following parameters are never reported on a dry weight basis; color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

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ANALYTICAL REPORT

PROJECT NO. 1200002050.403

TK-LOUISVILLE (GA)

Lot #: A4J140201

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

October 29, 2004

CASE NARRATIVE

A4J140201

The following report contains the analytical results for seven water samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK-Louisville (GA) Site, project number 1200002050.403. The samples were received October 14, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on October 26, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 3.7°C.

METALS

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL), the analytes were greater than 10 times the blank level for organics or 20 times for inorganics, or the associated sample(s) must be ND except for the common laboratory contaminants indicated below.

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

** for analyses run on TJA Trace ICP only*

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria does not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike for inorganics.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample are spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If the surrogate recoveries are outside criteria for environmental or MS/MSD samples, the batch is acceptable if the Method Blank, LCS, and LCSD surrogate recoveries are within acceptance criteria. The only exception is if the surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank and the associated sample(s) are ND, the batch is acceptable. If the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB and PAH methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A4J140201

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

ANALYTICAL METHODS SUMMARY

A4J140201

PARAMETER	ANALYTICAL METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-4

TOTAL Metals

Lot-Sample #...: A4J140201-001
Date Sampled...: 10/13/04 09:25 Date Received..: 10/14/04 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4289015						
Silver	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTKX01AA
Cadmium	ND	0.0050 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTKX01AC
Chromium	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTKX01AD
Copper	ND	1.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTKX01AF
Nickel	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTKX01AG
Lead	ND	0.015 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTKX01AE
Zinc	ND	2.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTKX01AH

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-3

TOTAL Metals

Lot-Sample #...: A4J140201-002 **Matrix.....:** WG
Date Sampled...: 10/13/04 10:00 **Date Received..:** 10/14/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4289015						
Silver	ND	0.10	mg/L	SW846 6010B	10/15-10/22/04	GTKX81AA
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	10/15-10/22/04	GTKX81AC
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	10/15-10/22/04	GTKX81AD
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	10/15-10/22/04	GTKX81AF
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	10/15-10/22/04	GTKX81AG
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	10/15-10/22/04	GTKX81AE
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	10/15-10/22/04	GTKX81AH
		Dilution Factor: 1				

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-10

TOTAL Metals

Lot-Sample #...: A4J140201-003
Date Sampled...: 10/13/04 12:00 **Date Received..:** 10/14/04 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4289015						
Silver	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0C1AA
Cadmium	ND	0.0050 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0C1AC
Chromium	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0C1AD
Copper	ND	1.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0C1AF
Nickel	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0C1AG
Lead	ND	0.015 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0C1AE
Zinc	ND	2.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0C1AH

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-1

TOTAL Metals

Lot-Sample #...: A4J140201-004
Date Sampled...: 10/13/04 12:05 **Date Received..:** 10/14/04 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4289015						
Silver	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0P1AA
Cadmium	ND	0.0050 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0P1AC
Chromium	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0P1AD
Copper	ND	1.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0P1AF
Nickel	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0P1AG
Lead	ND	0.015 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0P1AE
Zinc	ND	2.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK0P1AH

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-5

TOTAL Metals

Lot-Sample #...: A4J140201-005
Date Sampled...: 10/13/04 15:00 Date Received..: 10/14/04 Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4289015						
Silver	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK041AA
Cadmium	ND	0.0050 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK041AC
Chromium	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK041AD
Copper	ND	1.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK041AF
Nickel	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK041AG
Lead	ND	0.015 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK041AE
Zinc	ND	2.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK041AH

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: DUPGW1004

TOTAL Metals

Lot-Sample #...: A4J140201-006
Date Sampled...: 10/13/04 Date Received..: 10/14/04 Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4289015						
Silver	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK071AA
Cadmium	ND	0.0050 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK071AC
Chromium	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK071AD
Copper	ND	1.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK071AF
Nickel	ND	0.10 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK071AG
Lead	ND	0.015 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK071AE
Zinc	ND	2.0 Dilution Factor: 1	mg/L	SW846 6010B	10/15-10/22/04	GTK071AH

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-19

TOTAL Metals

ot-Sample #...: A4J140201-007 Matrix.....: WG
ate Sampled...: 10/13/04 15:25 Date Received..: 10/14/04

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4289015						
Silver	ND	0.10	mg/L	SW846 6010B	10/15-10/22/04	GTK1C1AA
		Dilution Factor: 1				
Cadmium	ND	0.0050	mg/L	SW846 6010B	10/15-10/22/04	GTK1C1AC
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	10/15-10/22/04	GTK1C1AD
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	10/15-10/22/04	GTK1C1AF
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	10/15-10/22/04	GTK1C1AG
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	10/15-10/22/04	GTK1C1AE
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	10/15-10/22/04	GTK1C1AH
		Dilution Factor: 1				

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A4J140201 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A4J150000-015 **Prep Batch #...:** 4289015						
Cadmium	ND	0.0050	mg/L	SW846 6010B	10/15-10/22/04	GTNG71CV
		Dilution Factor: 1				
Chromium	ND	0.10	mg/L	SW846 6010B	10/15-10/22/04	GTNG71CW
		Dilution Factor: 1				
Copper	ND	1.0	mg/L	SW846 6010B	10/15-10/22/04	GTNG71C0
		Dilution Factor: 1				
Lead	ND	0.015	mg/L	SW846 6010B	10/15-10/22/04	GTNG71CX
		Dilution Factor: 1				
Nickel	ND	0.10	mg/L	SW846 6010B	10/15-10/22/04	GTNG71C1
		Dilution Factor: 1				
Silver	ND	0.10	mg/L	SW846 6010B	10/15-10/22/04	GTNG71CU
		Dilution Factor: 1				
Zinc	ND	2.0	mg/L	SW846 6010B	10/15-10/22/04	GTNG71C2
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A4J140201 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A4J150000-015 **Prep Batch #...:** 4289015					
Silver	102	(80 - 120)	SW846 6010B Dilution Factor: 1	10/15-10/22/04	GTNG71C4
Cadmium	92	(80 - 120)	SW846 6010B Dilution Factor: 1	10/15-10/22/04	GTNG71C5
Chromium	94	(80 - 120)	SW846 6010B Dilution Factor: 1	10/15-10/22/04	GTNG71C6
Lead	94	(80 - 120)	SW846 6010B Dilution Factor: 1	10/15-10/22/04	GTNG71C7
Copper	95	(80 - 120)	SW846 6010B Dilution Factor: 1	10/15-10/22/04	GTNG71C8
Nickel	88	(80 - 120)	SW846 6010B Dilution Factor: 1	10/15-10/22/04	GTNG71C9
Zinc	93	(80 - 120)	SW846 6010B Dilution Factor: 1	10/15-10/22/04	GTNG71DA

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A4J140201 **Matrix.....:** WATER
Date Sampled...: 10/12/04 16:00 **Date Received..:** 10/14/04

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A4J140216-007 **Prep Batch #...:** 4289015							
Cadmium	101	(75 - 125)			SW846 6010B	10/15-10/22/04	GTK9T1D2
	102	(75 - 125)	0.53	(0-20)	SW846 6010B	10/15-10/22/04	GTK9T1D3
		Dilution Factor: 1					
Chromium	104	(75 - 125)			SW846 6010B	10/15-10/22/04	GTK9T1D5
	104	(75 - 125)	0.85	(0-20)	SW846 6010B	10/15-10/22/04	GTK9T1D6
		Dilution Factor: 1					
Silver	116	(75 - 125)			SW846 6010B	10/15-10/22/04	GTK9T1DX
	114	(75 - 125)	1.2	(0-20)	SW846 6010B	10/15-10/22/04	GTK9T1D0
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MACTEC ENGINEERING AND CONSULTING	RHONDA QUINN	10/13/04	124185
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
3200 TOWN POINT DR NW	(770) 421-3400 / (770) 421-3486		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
KENNESAW / GA / 30144			
Project Name and Location (State)	**Carrier/Waybill Number**		
TK - LOUISVILLE (GA)	FED-EX # 846174686640		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 6010B TOTAL METALS	6010B DISSOLVED METALS	Special Instructions/ Conditions of Receipt
MW-4	10/13/04	0925		X					X				1		* FILTER AND HOLD
MW-4	↓	↓		X			X							1	DISSOLVED METALS
MW-3		1000		X					X				1		SAMPLES; ANALYSIS
MW-3		↓		X			X							1	PENDING TOTAL
MW-10		1200		X					X				1		METALS RESULTS
MW-10		↓		X			X							1	
MW-1		1205		X					X				1		
MW-1		↓		X			X							1	
MW-5		1500		X					X				1		
MW-5	↓	↓		X			X							1	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other NORMAL TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	10/13/04	1700	1. Received By	10/14/04	10:10am
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MACTEC ENGINEERING AND CONSULTING	RHONDA QUINN	10/13/04	124182
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
3200 TOWN POINT DR., NW	(770) 421-3400 / (770) 421-3486		
City / **State** / **Zip Code**	**Site Contact** / **Lab Contact**		
KENNESAW / GA / 30144			
Project Name and Location (State)	**Carrier/Waybill Number**		
TK - LOUISVILLE (GA)	FED-EX # 846174686640		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: Total Metals 6010B	Dissolved Metals 6010B
DupGW1004	10/13/04	0000		X					X				1	
DupGW1004	↓	↓		X			X							1
MW-19		1525		X					X				1	
MW-19	↓	↓		X			X							1

Special Instructions/ Conditions of Receipt

* FILTER AND HOLD DISSOLVED METALS SAMPLES; ANALYSIS PENDING TOTAL METALS RESULTS

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other NORMAL TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	10/13/04	1700	1. Received By	10/14/04	10:10 AM
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A4J290161

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GVTCC	001	MW-20	10/28/04	15:45
GVTCE	002	TRIP BLANK	10/28/04	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

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ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK-LOUISVILLE

Lot #: A4J290161

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

November 20, 2004

CASE NARRATIVE

A4J290161

The following report contains the analytical results for one water sample and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the TK-Louisville Site, project number 12000-0-2050. The samples were received October 29, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on November 12, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 4.2°C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL), the analytes were greater than 10 times the blank level for organics or 20 times for inorganics, or the associated sample(s) must be ND except for the common laboratory contaminants indicated below.

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

** for analyses run on TJA Trace ICP only*

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria does not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike for inorganics.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample are spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If the surrogate recoveries are outside criteria for environmental or MS/MSD samples, the batch is acceptable if the Method Blank, LCS, and LCSD surrogate recoveries are within acceptance criteria. The only exception is if the surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank and the associated sample(s) are ND, the batch is acceptable. If the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB and PAH methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A4J290161

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-20 10/28/04 15:45 001				
cis-1,2-Dichloroethene	52	10	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A4J290161

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-20

GC/MS Volatiles

Lot-Sample #...: A4J290161-001 Work Order #...: GVTCC1AA Matrix.....: WG
Date Sampled...: 10/28/04 15:45 Date Received..: 10/29/04
Prep Date.....: 11/11/04 Analysis Date..: 11/11/04
Prep Batch #...: 4317074
Dilution Factor: 2 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	10	ug/L
Bromodichloromethane	ND	10	ug/L
Bromoform	ND	10	ug/L
Bromomethane	ND	10	ug/L
Carbon tetrachloride	ND	10	ug/L
Chlorobenzene	ND	10	ug/L
Chlorodibromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	10	ug/L
Chloromethane	ND	10	ug/L
Dibromomethane	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	10	ug/L
1,2-Dichloroethane	ND	10	ug/L
cis-1,2-Dichloroethene	**52**	**10**	**ug/L**
trans-1,2-Dichloroethene	ND	10	ug/L
1,1-Dichloroethene	ND	10	ug/L
1,2-Dichloropropane	ND	10	ug/L
1,3-Dichloropropane	ND	10	ug/L
2,2-Dichloropropane	ND	10	ug/L
1,1-Dichloropropene	ND	10	ug/L
1,4-Dioxane	ND	500	ug/L
Ethylbenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Isopropylbenzene	ND	10	ug/L
Methylene chloride	ND	10	ug/L
Naphthalene	ND	10	ug/L
Styrene	ND	10	ug/L
1,1,1,2-Tetrachloroethane	ND	10	ug/L
1,1,2,2-Tetrachloroethane	ND	10	ug/L
Tetrachloroethene	ND	10	ug/L
Toluene	ND	10	ug/L
1,2,4-Trichloro-benzene	ND	10	ug/L
1,1,1-Trichloroethane	ND	10	ug/L
1,1,2-Trichloroethane	ND	10	ug/L

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SEVERN TRENT STL

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ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK-LOUISVILLE

Lot #: A4J290155

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

November 4, 2004

CASE NARRATIVE

A4J290155

The following report contains the analytical results for one water sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK-Louisville Site, project number 12000-0-2050. The sample was received October 29, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on October 29, 2004, and November 03, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

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SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 4.2°C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

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Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

** for analyses run on TJA Trace ICP only*

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

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For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB and PAH methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A4J290155

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

ANALYTICAL METHODS SUMMARY

A4J290155

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-24

GC/MS Volatiles

Lot-Sample #...: A4J290155-001 **Work Order #...:** GVTAH1AA **Matrix.....:** WG
Date Sampled...: 10/28/04 14:20 **Date Received..:** 10/29/04
Prep Date.....: 10/29/04 **Analysis Date..:** 10/29/04
Prep Batch #...: 4303336
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-24

GC/MS Volatiles

Lot-Sample #...: A4J290155-001 Work Order #...: GVTAH1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J290155 **Work Order #...:** GVT0N1AA **Matrix.....:** WATER
MB Lot-Sample #: A4J290000-336

Prep Date.....: 10/29/04
Analysis Date..: 10/29/04 **Prep Batch #...:** 4303336
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J290155 **Work Order #...:** GVT0N1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J290155 **Work Order #...:** GVT0N1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4J290000-336 GVT0N1AD-LCSD
Prep Date.....: 10/29/04 **Analysis Date..:** 10/29/04
Prep Batch #...: 4303336
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**98**	**(80 - 116)**			**SW846 8260B**
	100	**(80 - 116)**	**2.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**1.3**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**102**	**(63 - 130)**			**SW846 8260B**
	102	**(63 - 130)**	**0.040**	**(0-20)**	**SW846 8260B**
Toluene	**100**	**(74 - 119)**			**SW846 8260B**
	99	**(74 - 119)**	**0.97**	**(0-20)**	**SW846 8260B**
Trichloroethene	**106**	**(75 - 122)**			**SW846 8260B**
	103	**(75 - 122)**	**2.6**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
	94	(61 - 128)
Toluene-d8	98	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)
	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J290155 **Work Order #...:** GT6KG1AD-MS **Matrix.....:** WATER
MS Lot-Sample #: A4J210269-006 GT6KG1AE-MSD
Date Sampled...: 10/19/04 16:18 **Date Received..:** 10/21/04
Prep Date.....: 10/29/04 **Analysis Date..:** 10/29/04
Prep Batch #...: 4303336
Dilution Factor: 10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**94**	**(78 - 118)**			**SW846 8260B**
	99	**(78 - 118)**	**4.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**1.0**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**97**	**(62 - 130)**			**SW846 8260B**
	100	**(62 - 130)**	**2.8**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(70 - 119)**			**SW846 8260B**
	97	**(70 - 119)**	**2.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**95**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**1.9**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
	97	(61 - 128)
Toluene-d8	101	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)
	88	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J290161 **Work Order #...:** GWTWQ1AA **Matrix.....:** WATER
MB Lot-Sample #: A4K120000-074

Prep Date.....: 11/11/04
Analysis Date..: 11/11/04 **Prep Batch #...:** 4317074
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J290161 **Work Order #...:** GWTWQ1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J290161 Work Order #...: GWMW71AC-LCS Matrix.....: WATER
LCS Lot-Sample#: A4K100000-407 GWMW71AD-LCSD
Prep Date.....: 11/10/04 Analysis Date..: 11/10/04
Prep Batch #...: 4315407
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**94**	**(80 - 116)**			**SW846 8260B**
	98	**(80 - 116)**	**4.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**1.3**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**95**	**(63 - 130)**			**SW846 8260B**
	99	**(63 - 130)**	**3.8**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(74 - 119)**			**SW846 8260B**
	99	**(74 - 119)**	**1.8**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(75 - 122)**			**SW846 8260B**
	103	**(75 - 122)**	**4.2**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
	93	(61 - 128)
Toluene-d8	105	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J290161 **Work Order #...:** GWTWQ1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4K120000-074 GWTWQ1AD-LCSD
Prep Date.....: 11/11/04 **Analysis Date..:** 11/11/04
Prep Batch #...: 4317074
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**93**	**(80 - 116)**			**SW846 8260B**
	98	**(80 - 116)**	**5.4**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**1.2**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**90**	**(63 - 130)**			**SW846 8260B**
	93	**(63 - 130)**	**3.1**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(74 - 119)**			**SW846 8260B**
	100	**(74 - 119)**	**4.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**95**	**(75 - 122)**			**SW846 8260B**
	100	**(75 - 122)**	**5.2**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
	90	(61 - 128)
Toluene-d8	107	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)
	101	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A4J290161	**Work Order #...:**	GV55T1AC-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	A4K030275-007		GV55T1AD-MSD		
Date Sampled...:	11/02/04 11:31	**Date Received..:**	11/03/04		
Prep Date.....:	11/10/04	**Analysis Date..:**	11/10/04		
Prep Batch #...:	4315407				
Dilution Factor:	1				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**100**	**(78 - 118)**			**SW846 8260B**
	105	**(78 - 118)**	**5.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**			**SW846 8260B**
	103	**(76 - 117)**	**3.0**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**108**	**(62 - 130)**			**SW846 8260B**
	111	**(62 - 130)**	**2.0**	**(0-20)**	**SW846 8260B**
Toluene	**104**	**(70 - 119)**			**SW846 8260B**
	106	**(70 - 119)**	**2.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**106**	**(62 - 130)**			**SW846 8260B**
	113	**(62 - 130)**	**6.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	92	(61 - 128)
Toluene-d8	105	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	102	(74 - 116)
	101	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A4J290161	**Work Order #...:**	GWH111AC-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	A4K090157-006		GWH111AD-MSD		
Date Sampled...:	11/08/04 13:30	**Date Received..:**	11/09/04		
Prep Date.....:	11/11/04	**Analysis Date..:**	11/11/04		
Prep Batch #...:	4317074				
Dilution Factor:	29.41				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**100**	**(78 - 118)**			**SW846 8260B**
	100	**(78 - 118)**	**0.44**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**1.5**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**104**	**(62 - 130)**			**SW846 8260B**
	106	**(62 - 130)**	**2.3**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(70 - 119)**			**SW846 8260B**
	100	**(70 - 119)**	**1.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**102**	**(62 - 130)**			**SW846 8260B**
	102	**(62 - 130)**	**0.13**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
	95	(61 - 128)
Toluene-d8	105	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)
	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stlinc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

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Alternate Laboratory Name/Location: STL - N CANTON, 4101 SHUFFLE DR, N CANTON, OH 44720
Phone: 330 497-9396
Fax: 330 - 497-0772

PROJECT REFERENCE: TK - LOUISVILLE	PROJECT NO.: 12000-0 2050	PROJECT LOCATION (STATE): GA	PAGE 1 OF 1
STL (LAB) PROJECT MANAGER: ROGER TOTH	P.O. NUMBER:	CONTRACT NO.:	STANDARD REPORT DELIVERY ✓ DATE DUE (MW-20/TB)
CLIENT (SITE) PM: RHONDA QUINN	CLIENT PHONE: 770-421-3400	CLIENT FAX: 770-421-3486	EXPEDITED REPORT DELIVERY (SURCHARGE) ✓ DATE DUE (MW-24)
CLIENT NAME: MALTEC	CLIENT E-MAIL:		
CLIENT ADDRESS: 3200 TOWN POINT DR. NW KENNESAW, GA 30144			
COMPANY CONTRACTING THIS WORK (if applicable):			NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT,...)

REQUIRED ANALYSIS: * VOCs - 8260B

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
10/28/04	1420	MW-24		X				3	* SITE SPECIFIC VOCs
↓	1545	MW-20		X				3	
↓	—	TRIP BLANK		X				2	* MW-24 IS 24 HOUR TAT
									* MW-20 AND TRIP BLANK ARE STANDARD TAT

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature] NEUE			[signature]	10/29/04	1700			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[signature]	10/29/04	8:50						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL SAVANNAH LOG NO.	LABORATORY REMARKS
			YES ○ NO ○			

STL 8249-680 (12/02)

SAMPLE SUMMARY

A4J290155

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GVTAH	001	MW-24	10/28/04	14:20

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK-LOUISVILLE

Lot #: A4J290155

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

November 4, 2004

CASE NARRATIVE

A4J290155

The following report contains the analytical results for one water sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK-Louisville Site, project number 12000-0-2050. The sample was received October 29, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on October 29, 2004, and November 03, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 4.2°C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL), the analytes were greater than 10 times the blank level for organics or 20 times for inorganics, or the associated sample(s) must be ND except for the common laboratory contaminants indicated below.

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

** for analyses run on TJA Trace ICP only*

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria does not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike for inorganics.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample are spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If the surrogate recoveries are outside criteria for environmental or MS/MSD samples, the batch is acceptable if the Method Blank, LCS, and LCSD surrogate recoveries are within acceptance criteria. The only exception is if the surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank and the associated sample(s) are ND, the batch is acceptable. If the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB and PAH methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A4J290155

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

ANALYTICAL METHODS SUMMARY

A4J290155

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-24

GC/MS Volatiles

Lot-Sample #...: A4J290155-001 Work Order #...: GVTAH1AA Matrix.....: WG
Date Sampled...: 10/28/04 14:20 Date Received..: 10/29/04
Prep Date.....: 10/29/04 Analysis Date..: 10/29/04
Prep Batch #...: 4303336
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MW-24

GC/MS Volatiles

Lot-Sample #...: A4J290155-001 Work Order #...: GVTAH1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J290155 **Work Order #...:** GVT0N1AA **Matrix.....:** WATER
MB Lot-Sample #: A4J290000-336

Prep Date.....: 10/29/04
Analysis Date..: 10/29/04 **Prep Batch #...:** 4303336
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4J290155 **Work Order #...:** GVT0N1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J290155 **Work Order #...:** GVT0N1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4J290000-336 GVT0N1AD-LCSD
Prep Date.....: 10/29/04 **Analysis Date..:** 10/29/04
Prep Batch #...: 4303336
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**98**	**(80 - 116)**			**SW846 8260B**
	100	**(80 - 116)**	**2.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**1.3**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**102**	**(63 - 130)**			**SW846 8260B**
	102	**(63 - 130)**	**0.040**	**(0-20)**	**SW846 8260B**
Toluene	**100**	**(74 - 119)**			**SW846 8260B**
	99	**(74 - 119)**	**0.97**	**(0-20)**	**SW846 8260B**
Trichloroethene	**106**	**(75 - 122)**			**SW846 8260B**
	103	**(75 - 122)**	**2.6**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
	94	(61 - 128)
Toluene-d8	98	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)
	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4J290155 **Work Order #...:** GT6KG1AD-MS **Matrix.....:** WATER
MS Lot-Sample #: A4J210269-006 GT6KG1AE-MSD
Date Sampled...: 10/19/04 16:18 **Date Received..:** 10/21/04
Prep Date.....: 10/29/04 **Analysis Date..:** 10/29/04
Prep Batch #...: 4303336
Dilution Factor: 10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**94**	**(78 - 118)**			**SW846 8260B**
	99	**(78 - 118)**	**4.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**1.0**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**97**	**(62 - 130)**			**SW846 8260B**
	100	**(62 - 130)**	**2.8**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(70 - 119)**			**SW846 8260B**
	97	**(70 - 119)**	**2.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**95**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**1.9**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
	97	(61 - 128)
Toluene-d8	101	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)
	88	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Serial Number 19143

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
STL - N. CANTON 4101 SHUFFEL DR N. CANTON, OH 44720
Phone: 330 - 497 - 9396
Fax: 330 - 497 - 0772

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
TK - LOUISVILLE	12000-0-2050	GA
STL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
ROGER TOTH		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
RHONDA QUINN	770-421-3400	770-421-3486
CLIENT NAME	CLIENT E-MAIL	
MACTEC		
CLIENT ADDRESS		
3200 TOWN POINT DR. NW KENNESAW, GA 30144		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ✓
DATE DUE (MW-20/TB)
EXPEDITED REPORT DELIVERY (SURCHARGE) ✓
DATE DUE (MW-24)
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX TYPE: AQUEOUS (WATER)	MATRIX TYPE: SOLID OR SEMISOLID	MATRIX TYPE: AIR	MATRIX TYPE: NONAQUEOUS LIQUID (OIL, SOLVENT,...)	REQUIRED ANALYSIS: * VOCs - 8260B	NUMBER OF CONTAINERS SUBMITTED	REMARKS
10/28/04	1420	MW-24		X					3	* SITE SPECIFIC VOCS
↓	1545	MW-20		X					3	
↓	—	TRIP BLANK		X					2	* MW-24 IS 24 HOUR TAT
										* MW-20 AND TRIP BLANK ARE STANDARD TAT

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
NONE				10/28/04	1700			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
	10/29/04	9:50						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES ○ NO ○	CUSTODY SEAL NO.	STL SAVANNAH LOG NO.	LABORATORY REMARKS

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

12

STL-4124 (0901)

Client: Mactec Engineering	Project Manager: Rhonda Quinn	Date: 10-12-04	Chain of Custody Number: 174306
Address: 3200 Town Point Dr	Telephone Number (Area Code)/Fax Number: 770 421 3516	Lab Number:	Page 1 of
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Rhonda Q	Lab Contact: Roger Toth	
Project Name and Location (State): Thermo King Louisville, GA	Carrier/Waybill Number: 8307222 93906		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs 8260B	Special Instructions/ Conditions of Receipt
MW-24	10-12-04	1600		X						3			3	24-hr TAT
Dup 10 ~~12~~	10-12-04	1630		X						3			3	24-hr TAT
Trip Blank	10-12-04			X						1			1	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☒ 24 Hours MW24 ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify): Site VOCs - Call Rhonda

1. Relinquished By: Rhonda Quinn	Date: 10-12-04	Time: 1619	1. Received By:	Date: 10/13/04	Time: 9:50
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SURFACE WATER

SAMPLE SUMMARY

A3A170214

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FF9F1	001	MASON BRANCH #2	01/15/03	11:15
FF9F4	002	SEEP #2	01/15/03	16:10
FF9F6	003	SEEP A	01/15/03	15:25
FF9F7	004	SEEP B	01/15/03	16:45
FF9F8	005	SEEP C	01/15/03	10:45
FF9F9	006	SEEP D	01/15/03	13:10
FF9GC	007	SEEP E	01/15/03	13:25
FF9GD	008	SEEP F	01/15/03	14:05
FF9GL	009	SEEP G	01/15/03	12:30
FF9GM	010	SEEP H	01/15/03	12:50
FF9GR	011	SEEP I	01/15/03	11:55
FF9GT	012	MB #14	01/15/03	17:20
FF9GX	013	MB #15	01/15/03	17:00
FF9G0	014	MB #16	01/15/03	16:30
FF9G1	015	SEEP ZZ	01/15/03	14:30
FF9G2	016	TRIP BLANK	01/15/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

ANALYTICAL REPORT

REVISED

T.K. LOUISVILLE/GA

Lot #: A3A170214

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

February 6, 2003

CASE NARRATIVE

A3A170214

The following report contains the analytical results for fifteen water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the T.K. Louisville/GA Site. The samples were received on January 17, 2003, according to documented sample acceptance procedures.

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the Analytical Methods Summary page in accordance with the methods indicated. Preliminary results were provided to Rhonda Quinn on January 27, 2003.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.1° C.

See STL's Cooler Receipt Form for additional information.

GC/MS VOLATILES

Sample(s) that contain results between the MDL and the RL were flagged with "J". There is the possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:
Alabama (#41170), California (#2157), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#100439), Kansas (#E10336), Kentucky (#90021), Massachusetts (#M-OH048),
Maryland (#272), Minnesota (#39-999-348), Missouri (#6090), New Jersey (#74001),
New York (#10975), North Dakota (#R-156), Ohio (#6090), OhioVAP (#CL0024),
Pennsylvania (#68-340), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003),
Tennessee (#02903), West Virginia (#210), Wisconsin (#999518190).NAVY, ARMY,
USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A3A170214

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MASON BRANCH #2 01/15/03 11:15 001				
cis-1,2-Dichloroethene	36	2.0	ug/L	SW846 8260B
1,1-Dichloroethene	12	4.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	15	4.0	ug/L	SW846 8260B
Trichloroethene	120	4.0	ug/L	SW846 8260B
SEEP C 01/15/03 10:45 005				
cis-1,2-Dichloroethene	13	12	ug/L	SW846 8260B
1,1-Dichloroethene	110	25	ug/L	SW846 8260B
1,1,1-Trichloroethane	120	25	ug/L	SW846 8260B
Trichloroethene	840	25	ug/L	SW846 8260B
SEEP G 01/15/03 12:30 009				
cis-1,2-Dichloroethene	0.73	0.50	ug/L	SW846 8260B
SEEP H 01/15/03 12:50 010				
cis-1,2-Dichloroethene	6.9	0.50	ug/L	SW846 8260B
Trichloroethene	24	1.0	ug/L	SW846 8260B
TRIP BLANK 01/15/03 016				
Methylene chloride	3.2	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3A170214

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MASON BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A3A170214-001 Work Order #...: FF9F11AA Matrix.....: WG
Date Sampled...: 01/15/03 11:15 Date Received..: 01/17/03
Prep Date.....: 01/23/03 Analysis Date..: 01/23/03
Prep Batch #...: 3024156
Dilution Factor: 4 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.0	ug/L
Bromodichloromethane	ND	4.0	ug/L
Bromoform	ND	4.0	ug/L
Bromomethane	ND	4.0	ug/L
Carbon tetrachloride	ND	4.0	ug/L
Chlorobenzene	ND	4.0	ug/L
Chlorodibromomethane	ND	4.0	ug/L
Chloroethane	ND	4.0	ug/L
Chloroform	ND	4.0	ug/L
Chloromethane	ND	4.0	ug/L
Dibromomethane	ND	4.0	ug/L
1,2-Dichlorobenzene	ND	4.0	ug/L
1,3-Dichlorobenzene	ND	4.0	ug/L
1,4-Dichlorobenzene	ND	4.0	ug/L
Dichlorodifluoromethane	ND	4.0	ug/L
1,1-Dichloroethane	ND	4.0	ug/L
1,2-Dichloroethane	ND	4.0	ug/L
cis-1,2-Dichloroethene	**36**	**2.0**	**ug/L**
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,1-Dichloroethene	**12**	**4.0**	**ug/L**
1,2-Dichloropropane	ND	4.0	ug/L
1,3-Dichloropropane	ND	4.0	ug/L
2,2-Dichloropropane	ND	4.0	ug/L
1,1-Dichloropropene	ND	4.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	4.0	ug/L
Hexachlorobutadiene	ND	4.0	ug/L
Isopropylbenzene	ND	4.0	ug/L
Methylene chloride	ND	4.0	ug/L
Naphthalene	ND	4.0	ug/L
Styrene	ND	4.0	ug/L
1,1,1,2-Tetrachloroethane	ND	4.0	ug/L
1,1,2,2-Tetrachloroethane	ND	4.0	ug/L
Tetrachloroethene	ND	4.0	ug/L
Toluene	ND	4.0	ug/L
1,2,4-Trichlorobenzene	ND	4.0	ug/L
1,1,1-Trichloroethane	**15**	**4.0**	**ug/L**
1,1,2-Trichloroethane	ND	4.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MASON BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A3A170214-001 Work Order #...: FF9F11AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	120	4.0	ug/L
Trichlorofluoromethane	ND	4.0	ug/L
1,2,3-Trichloropropane	ND	4.0	ug/L
Vinyl chloride	ND	4.0	ug/L
Xylenes (total)	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A3A170214-002 **Work Order #...:** FF9F41AA **Matrix.....:** WG
Date Sampled...: 01/15/03 16:10 **Date Received..:** 01/17/03
Prep Date.....: 01/23/03 **Analysis Date..:** 01/23/03
Prep Batch #...: 3024156
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A3A170214-002 Work Order #...: FF9F41AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP A

GC/MS Volatiles

Lot-Sample #...: A3A170214-003 **Work Order #...: FF9F61AA** **Matrix.....: WG**
Date Sampled...: 01/15/03 15:25 **Date Received..: 01/17/03**
Prep Date.....: 01/23/03 **Analysis Date..: 01/23/03**
Prep Batch #...: 3024156
Dilution Factor: 1 **Method.....: SW846 8260B**

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SKEP A

GC/MS Volatiles

Lot-Sample #...: A3A170214-003 Work Order #...: FF9F61AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP B

GC/MS Volatiles

Lot-Sample #...: A3A170214-004 **Work Order #...: FF9F71AA** **Matrix.....: WG**
Date Sampled...: 01/15/03 16:45 **Date Received..: 01/17/03**
Prep Date.....: 01/23/03 **Analysis Date..: 01/23/03**
Prep Batch #...: 3024156
Dilution Factor: 1 **Method.....: SW846 8260B**

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SKEP B

GC/MS Volatiles

Lot-Sample #...: A3A170214-004 Work Order #...: FF9F71AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A3A170214-005 **Work Order #...: FF9F81AA** **Matrix.....: WG**
Date Sampled...: 01/15/03 10:45 **Date Received..: 01/17/03**
Prep Date.....: 01/23/03 **Analysis Date..: 01/23/03**
Prep Batch #...: 3024156
Dilution Factor: 25 **Method.....: SW846 8260B**

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	25	ug/L
Bromodichloromethane	ND	25	ug/L
Bromoform	ND	25	ug/L
Bromomethane	ND	25	ug/L
Carbon tetrachloride	ND	25	ug/L
Chlorobenzene	ND	25	ug/L
Chlorodibromomethane	ND	25	ug/L
Chloroethane	ND	25	ug/L
Chloroform	ND	25	ug/L
Chloromethane	ND	25	ug/L
Dibromomethane	ND	25	ug/L
1,2-Dichlorobenzene	ND	25	ug/L
1,3-Dichlorobenzene	ND	25	ug/L
1,4-Dichlorobenzene	ND	25	ug/L
Dichlorodifluoromethane	ND	25	ug/L
1,1-Dichloroethane	ND	25	ug/L
1,2-Dichloroethane	ND	25	ug/L
*cis-1,2-Dichloroethene	13	12	ug/L
trans-1,2-Dichloroethene	ND	12	ug/L
*1,1-Dichloroethene	110	25	ug/L
1,2-Dichloropropane	ND	25	ug/L
1,3-Dichloropropane	ND	25	ug/L
2,2-Dichloropropane	ND	25	ug/L
1,1-Dichloropropene	ND	25	ug/L
1,4-Dioxane	ND	1200	ug/L
Ethylbenzene	ND	25	ug/L
Hexachlorobutadiene	ND	25	ug/L
Isopropylbenzene	ND	25	ug/L
Methylene chloride	ND	25	ug/L
Naphthalene	ND	25	ug/L
Styrene	ND	25	ug/L
1,1,1,2-Tetrachloroethane	ND	25	ug/L
1,1,2,2-Tetrachloroethane	ND	25	ug/L
Tetrachloroethene	ND	25	ug/L
Toluene	ND	25	ug/L
1,2,4-Trichlorobenzene	ND	25	ug/L
1,1,1-Trichloroethane	120	25	ug/L
1,1,2-Trichloroethane	ND	25	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A3A170214-005 Work Order #...: FF9F81AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**840**	**25**	**ug/L**
Trichlorofluoromethane	ND	25	ug/L
1,2,3-Trichloropropane	ND	25	ug/L
Vinyl chloride	ND	25	ug/L
Xylenes (total)	ND	25	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SKEP D

GC/MS Volatiles

Lot-Sample #...: A3A170214-006 **Work Order #...: FF9F91AA** **Matrix.....: WG**
Date Sampled...: 01/15/03 13:10 **Date Received..: 01/17/03**
Prep Date.....: 01/23/03 **Analysis Date..: 01/23/03**
Prep Batch #...: 3024156
Dilution Factor: 1 **Method.....: SW846 8260B**

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A3A170214-006 Work Order #...: FF9F91AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SKEP E

GC/MS Volatiles

Lot-Sample #...: A3A170214-007 Work Order #...: FF9GC1AA Matrix.....: WG
Date Sampled...: 01/15/03 13:25 Date Received..: 01/17/03
Prep Date.....: 01/23/03 Analysis Date..: 01/23/03
Prep Batch #...: 3024156
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP E

GC/MS Volatiles

Lot-Sample #...: A3A170214-007 Work Order #...: FF9GC1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP F

GC/MS Volatiles

Lot-Sample #...: A3A170214-008 **Work Order #...:** FF9GD1AA **Matrix.....:** WG
Date Sampled...: 01/15/03 14:05 **Date Received..:** 01/17/03
Prep Date.....: 01/23/03 **Analysis Date..:** 01/23/03
Prep Batch #...: 3024156
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP F

GC/MS Volatiles

Lot-Sample #...: A3A170214-008 Work Order #...: FF9GD1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A3A170214-009 **Work Order #...: FF9GL1AA** **Matrix.....: WG**
Date Sampled...: 01/15/03 12:30 **Date Received..: 01/17/03**
Prep Date.....: 01/23/03 **Analysis Date..: 01/23/03**
Prep Batch #...: 3024156
Dilution Factor: 1 **Method.....: SW846 8260B**

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	**0.73**	**0.50**	**ug/L**
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A3A170214-009 Work Order #...: FF9GL1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A3A170214-010 **Work Order #...:** FF9GM1AA **Matrix.....:** WG
Date Sampled...: 01/15/03 12:50 **Date Received..:** 01/17/03
Prep Date.....: 01/23/03 **Analysis Date..:** 01/23/03
Prep Batch #...: 3024156
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	**6.9**	**0.50**	**ug/L**
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A3A170214-010 Work Order #...: FF9GM1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**24**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A3A170214-011 Work Order #...: FF9GR1AA Matrix.....: WG
Date Sampled...: 01/15/03 11:55 Date Received..: 01/17/03
Prep Date.....: 01/23/03 Analysis Date..: 01/23/03
Prep Batch #...: 3024156
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A3A170214-011 Work Order #...: FF9GR1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MB #14

GC/MS Volatiles

Lot-Sample #...: A3A170214-012 Work Order #...: FF9GT1AA Matrix.....: WG
Date Sampled...: 01/15/03 17:20 Date Received..: 01/17/03
Prep Date.....: 01/23/03 Analysis Date..: 01/23/03
Prep Batch #...: 3024156
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MB #14

GC/MS Volatiles

Lot-Sample #...: A3A170214-012 Work Order #...: FF9GT1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	104	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MB #15

GC/MS Volatiles

Lot-Sample #...: A3A170214-013 Work Order #...: FF9GX1AA Matrix.....: WG
Date Sampled...: 01/15/03 17:00 Date Received..: 01/17/03
Prep Date.....: 01/24/03 Analysis Date..: 01/24/03
Prep Batch #...: 3024313
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MB #15

GC/MS Volatiles

Lot-Sample #...: A3A170214-013 Work Order #...: FF9GX1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MB #16

GC/MS Volatiles

Lot-Sample #...: A3A170214-014 **Work Order #...: FF9G01AA** **Matrix.....: WG**
Date Sampled...: 01/15/03 16:30 **Date Received..: 01/17/03**
Prep Date.....: 01/24/03 **Analysis Date..: 01/24/03**
Prep Batch #...: 3024313
Dilution Factor: 1 **Method.....: SW846 8260B**

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MB #16

GC/MS Volatiles

Lot-Sample #...: A3A170214-014 Work Order #...: FF9G01AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP ZZ

GC/MS Volatiles

Lot-Sample #...: A3A170214-015 Work Order #...: FF9G11AA Matrix.....: WG
Date Sampled...: 01/15/03 14:30 Date Received..: 01/17/03
Prep Date.....: 01/24/03 Analysis Date..: 01/24/03
Prep Batch #...: 3024313
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP ZZ

GC/MS Volatiles

Lot-Sample #...: A3A170214-015 Work Order #...: FF9G11AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3A170214-016 Work Order #...: FF9G21AA Matrix.....: WQ
Date Sampled...: 01/15/03 Date Received..: 01/17/03
Prep Date.....: 01/24/03 Analysis Date..: 01/24/03
Prep Batch #...: 3024313
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**3.2**	**1.0**	**ug/L**
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3A170214-016 Work Order #...: FF9G21AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A170214 **Work Order #...:** FGKRV1AA **Matrix.....:** WATER
MB Lot-Sample #: A3A240000-156

Prep Date.....: 01/23/03
Analysis Date..: 01/23/03 **Prep Batch #...:** 3024156
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A170214 **Work Order #...:** FGKRV1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	103	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A170214 **Work Order #...: FGLL31AA** **Matrix.....: WATER**
MB Lot-Sample #: A3A240000-313

Prep Date.....: 01/24/03
Analysis Date..: 01/24/03 **Prep Batch #...: 3024313**
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3A170214 **Work Order #...:** FGLL31AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	113	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	105	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A170214 **Work Order #...:** FGKRV1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A3A240000-156 FGKRV1AD-LCSD
Prep Date.....: 01/23/03 **Analysis Date..:** 01/23/03
Prep Batch #...: 3024156
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	103	(63 - 130)			SW846 8260B
	105	(63 - 130)	2.2	(0-20)	SW846 8260B
Trichloroethene	91	(75 - 122)			SW846 8260B
	94	(75 - 122)	3.6	(0-20)	SW846 8260B
Benzene	97	(80 - 116)			SW846 8260B
	100	(80 - 116)	2.7	(0-20)	SW846 8260B
Toluene	94	(74 - 119)			SW846 8260B
	95	(74 - 119)	1.4	(0-20)	SW846 8260B
Chlorobenzene	94	(76 - 117)			SW846 8260B
	97	(76 - 117)	3.8	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
	110	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	102	(61 - 128)
Toluene-d8	99	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)
	99	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A170214 **Work Order #...:** FGLL31AC **Matrix.....:** WATER
LCS Lot-Sample#: A3A240000-313
Prep Date.....: 01/24/03 **Analysis Date..:** 01/24/03
Prep Batch #...: 3024313
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**96**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**87**	**(75 - 122)**	**SW846 8260B**
Benzene	**98**	**(80 - 116)**	**SW846 8260B**
Toluene	**93**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	105	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A170214 **Work Order #...:** FF9GT1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A3A170214-012 FF9GT1AD-MSD
Date Sampled...: 01/15/03 17:20 **Date Received..:** 01/17/03
Prep Date.....: 01/23/03 **Analysis Date..:** 01/23/03
Prep Batch #...: 3024156
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**104**	**(62 - 130)**			**SW846 8260B**
	103	**(62 - 130)**	**1.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**86**	**(62 - 130)**			**SW846 8260B**
	87	**(62 - 130)**	**0.51**	**(0-20)**	**SW846 8260B**
Benzene	**93**	**(78 - 118)**			**SW846 8260B**
	93	**(78 - 118)**	**0.60**	**(0-20)**	**SW846 8260B**
Toluene	**88**	**(70 - 119)**			**SW846 8260B**
	88	**(70 - 119)**	**0.03**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**89**	**(76 - 117)**			**SW846 8260B**
	90	**(76 - 117)**	**0.93**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(73 - 122)
	107	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
	99	(61 - 128)
Toluene-d8	103	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	92	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3A170214 **Work Order #...:** FGFTM1AM-MS **Matrix.....:** WATER
MS Lot-Sample #: A3A220106-007 FGFTM1AN-MSD
Date Sampled...: 01/13/03 **Date Received..:** 01/17/03
Prep Date.....: 01/24/03 **Analysis Date..:** 01/24/03
Prep Batch #...: 3024313
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**99**	**(62 - 130)**			**SW846 8260B**
	111	**(62 - 130)**	**11**	**(0-20)**	**SW846 8260B**
Trichloroethene	**87**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**10**	**(0-20)**	**SW846 8260B**
Benzene	**96**	**(78 - 118)**			**SW846 8260B**
	110	**(78 - 118)**	**14**	**(0-20)**	**SW846 8260B**
Toluene	**91**	**(70 - 119)**			**SW846 8260B**
	103	**(70 - 119)**	**12**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**92**	**(76 - 117)**			**SW846 8260B**
	103	**(76 - 117)**	**11**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
	111	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
	101	(61 - 128)
Toluene-d8	103	(76 - 110)
	104	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)
	96	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

Severn Trent Laboratories, Inc.

TL-4124 (0201)

Client: MacTec	Project Manager: Rhonda Quinn	Date: 1/16/03	Chain of Custody Number: 167883
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 2
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact:	Lab Contact:	
Project Name and Location (State): T.K. Louisville / GA	Carrier/Waybill Number: Fed Ex: 8353 2127 5064		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	VOC/8260B	Special Instructions/ Conditions of Receipt
Mason Branch #2	1/15/03	11:15		X						3				See attached list for analytical parameters and detection limits
Seep #2	1/15/03	16:10		X						3				
Seep A	1/15/03	15:25		X						3				
Seep B	1/15/03	16:45		X						3				
Seep C	1/15/03	10:45		X						3				
Seep D	1/15/03	13:10		X						3				For questions call Rhonda Quinn at (770) 421-3400
Seep E	1/15/03	13:25		X						3				
Seep F	1/15/03	14:05		X						3				
Seep G	1/15/03	12:30		X						3				
RV ~~Seep H~~ Seep H	1/15/03	12:50		X						3				
Seep I	1/15/03	11:55		X						3				
MB #14	1/15/03	17:20		X						3				

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: R.A. Leyman	1/16/03	16:00 To FedEx	1. Received By: Jennifer Miller	1/17/03	9:50
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton

Chain of Custody Record

TRENT SERVICES — Severn Trent Laboratories, Inc.

STL 4124 (0001)

Client: MacTec	Project Manager: Rhonda Quinn	Date: 1/16/03	Chain of Custody Number: 167882
Address: 3200 Town Point Dr. Suite 100	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 2 of 2
City: Kennesaw	State: GA	Zip Code: 30144	Site Contact:	Lab Contact:
Project Name and Location (State): T.K. Louisville / GA	Carrier/Waybill Number: Fed Ex: 835321295064		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOC/8260B	Special Instructions/ Conditions of Receipt
MB #15	1/15/03	17:00		X						3			X	See attached list for analytical parameters and detection limits
MB #16	1/15/03	16:30		X						3			X	
Soap 22	1/15/03	14:30		X						3			X	
Trip Blank	1/15/03	—		X						2			X	
MB #14 MS/MSD	1/15/03	17:20		X						6			X	
				X									X	For questions call Rhonda Quinn at (770) 421-3400
				X									X	
				X									X	
				X									X	
				X									X	
				X									X	
				X									X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify):

1. Relinquished By: R. A. Lyman	Date: 1/16/03	Time: To Fed Ex 16:00	1. Received By: [signature]	Date: 1/17/03	Time: 9:50
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton

50

SAMPLE SUMMARY

A3E150236

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FNRXP	001	SEEP J	05/14/03	15:00
FNRXX	002	TRIP BLANK	05/14/03	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

EXECUTIVE SUMMARY - Detection Highlights

A3E150236

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SEEP J 05/14/03 15:00 001				
cis-1,2-Dichloroethene	910	12	ug/L	SW846 8260B
trans-1,2-Dichloroethene	13	12	ug/L	SW846 8260B
Toluene	280	25	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A3E150236

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A3E150236-001 Work Order #...: FNRXP1AA Matrix.....: WG
Date Sampled...: 05/14/03 15:00 Date Received..: 05/15/03
Prep Date.....: 05/20/03 Analysis Date..: 05/20/03
Prep Batch #...: 3142121
Dilution Factor: 5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	25	ug/L
Bromoform	ND	25	ug/L
Bromomethane	ND	25	ug/L
Carbon tetrachloride	ND	25	ug/L
Chlorobenzene	ND	25	ug/L
Chlorodibromomethane	ND	25	ug/L
Chloroethane	ND	25	ug/L
Chloroform	ND	25	ug/L
Chloromethane	ND	25	ug/L
Dibromomethane	ND	25	ug/L
1,2-Dichlorobenzene	ND	25	ug/L
1,3-Dichlorobenzene	ND	25	ug/L
1,4-Dichlorobenzene	ND	25	ug/L
Dichlorodifluoromethane	ND	25	ug/L
1,1-Dichloroethane	ND	25	ug/L
1,2-Dichloroethane	ND	25	ug/L
cis-1,2-Dichloroethene	**910**	**12**	**ug/L**
trans-1,2-Dichloroethene	**13**	**12**	**ug/L**
1,1-Dichloroethene	ND	25	ug/L
1,2-Dichloropropane	ND	25	ug/L
1,3-Dichloropropane	ND	25	ug/L
2,2-Dichloropropane	ND	25	ug/L
1,1-Dichloropropene	ND	25	ug/L
1,4-Dioxane	ND	1000	ug/L
Ethylbenzene	ND	25	ug/L
Hexachlorobutadiene	ND	25	ug/L
Isopropylbenzene	ND	25	ug/L
Methylene chloride	ND	25	ug/L
Naphthalene	ND	25	ug/L
Styrene	ND	25	ug/L
1,1,1,2-Tetrachloroethane	ND	25	ug/L
1,1,2,2-Tetrachloroethane	ND	25	ug/L
Tetrachloroethene	ND	25	ug/L
Toluene	**280**	**25**	**ug/L**
1,2,4-Trichloro-benzene	ND	25	ug/L
1,1,1-Trichloroethane	ND	25	ug/L
1,1,2-Trichloroethane	ND	25	ug/L
Trichloroethene	ND	25	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A3E150236-001 Work Order #...: FNRXP1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	25	ug/L
1,2,3-Trichloropropane	ND	25	ug/L
Vinyl chloride	ND	25	ug/L
Xylenes (total)	ND	25	ug/L
Bromodichloromethane	ND	25	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(78 - 115)
1,2-Dichloroethane-d4	98	(77 - 120)
Toluene-d8	99	(78 - 111)
4-Bromofluorobenzene	95	(80 - 114)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3E150236-002	**Work Order #...:** FNRXX1AA	**Matrix.....:** WQ	
Date Sampled...: 05/14/03	**Date Received..:** 05/15/03		
Prep Date.....: 05/20/03	**Analysis Date..:** 05/20/03		
Prep Batch #...: 3142121			
Dilution Factor: 1	**Method.....:** SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A3E150236-002 Work Order #...: FNRXX1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(78 - 115)
1,2-Dichloroethane-d4	94	(77 - 120)
Toluene-d8	95	(78 - 111)
4-Bromofluorobenzene	88	(80 - 114)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3E150236 Work Order #...: FN65V1AA Matrix.....: WATER
MB Lot-Sample #: A3E220000-121

Prep Date.....: 05/20/03
Analysis Date..: 05/20/03 Prep Batch #...: 3142121
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A3E150236 Work Order #...: FN65V1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(78 - 115)
1,2-Dichloroethane-d4	94	(77 - 120)
Toluene-d8	97	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A3E150236 Work Order #...: FN65V1AC Matrix.....: WATER
LCS Lot-Sample#: A3E220000-121
Prep Date.....: 05/20/03 Analysis Date..: 05/20/03
Prep Batch #...: 3142121
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**97**	**(65 - 119)**	**SW846 8260B**
Trichloroethene	**94**	**(80 - 122)**	**SW846 8260B**
Benzene	**97**	**(79 - 116)**	**SW846 8260B**
Toluene	**91**	**(76 - 119)**	**SW846 8260B**
Chlorobenzene	**92**	**(81 - 115)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(78 - 115)
1,2-Dichloroethane-d4	99	(77 - 120)
Toluene-d8	99	(78 - 111)
4-Bromofluorobenzene	96	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A3E150236	**Work Order #...:**	FNRWG1AC-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	A3E150229-002		FNRWG1AD-MSD		
Date Sampled...:	05/14/03 12:50	**Date Received..:**	05/15/03		
Prep Date.....:	05/20/03	**Analysis Date..:**	05/20/03		
Prep Batch #...:	3142121				
Dilution Factor:	1				

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**103**	**(57 - 138)**			**SW846 8260B**
	101	**(57 - 138)**	**2.0**	**(0-15)**	**SW846 8260B**
Trichloroethene	**95**	**(58 - 141)**			**SW846 8260B**
	96	**(58 - 141)**	**0.89**	**(0-17)**	**SW846 8260B**
Benzene	**98**	**(73 - 123)**			**SW846 8260B**
	98	**(73 - 123)**	**0.40**	**(0-11)**	**SW846 8260B**
Toluene	**91**	**(67 - 129)**			**SW846 8260B**
	92	**(67 - 129)**	**1.0**	**(0-14)**	**SW846 8260B**
Chlorobenzene	**93**	**(70 - 122)**			**SW846 8260B**
	92	**(70 - 122)**	**1.0**	**(0-14)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(78 - 115)
	102	(78 - 115)
1,2-Dichloroethane-d4	99	(77 - 120)
	99	(77 - 120)
Toluene-d8	100	(78 - 111)
	99	(78 - 111)
4-Bromofluorobenzene	98	(80 - 114)
	95	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

[redacted]

Chain of Custody Record

SEVERN TRENT SERVICES — Severn Trent Laboratories, Inc

29

STL-4124 (0901)

Client: Mactec	Project Manager: Rhonda Quinn	Date: 5/14/03	Chain of Custody Number: 165712
Address: 3200 Town Point Drive NW (Suite 100)	Telephone Number (Area Code)/Fax Number: 770) 421-3400 770) 421-3486	Lab Number:	Page 1 of 1
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact:	Lab Contact: Roger Toth	
Project Name and Location (State): TK-Louisville GA	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 8260B	temp.	Special Instructions/ Conditions of Receipt
MW-17	5/14/03	10:30		X						3			X		
MW-18	5/14/03	12:50		X						3			X		
Seep J	5/14/03	15:00		X						3			X		
Trip Blank	5/14/03	—		X						1			X		
Temp. Blank	5/14/03	—		X			1							X	

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [X] 7 Days [ ] 14 Days [ ] 21 Days [ ] Other _____

QC Requirements (Specify):

	Relinquished By	Date	Time	Received By	Date	Time
1.	David M. Knaul	5/14/03	21:00		5-15-03	10:05
2.						
3.						

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A4C260233

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GC1TJ	001	SEEP C	03/24/04	09:20
GC1TW	002	MB2	03/24/04	09:45
GC1TX	003	SEEP H	03/24/04	10:15
GC1T3	004	SEEP G	03/24/04	10:30
GC1T4	005	SEEP I	03/24/04	10:45
GC1T6	006	SEEP D	03/24/04	11:15
GC1T9	007	SEEP #2	03/24/04	11:40
GC1VA	008	SEEP Z04	03/24/04	12:00
GC1WJ	009	SEEP B	03/24/04	12:15
GC1WN	010	SEEP J	03/24/04	12:50
GC1WT	011	SEEP K	03/24/04	13:30
GC1WW	012	SEEP L	03/24/04	14:15

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050 Task 403

TK LOUISVILLE

Lot #: A4C260233

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

April 12, 2004

CASE NARRATIVE

A4C260233

The following report contains the analytical results for twelve water samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK Louisville Site, project number 12000-0-2050 Task 403. The samples were received March 26, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on April 02, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.6°C.

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A4C260233

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SEEP C 03/24/04 09:20 001				
Trichloroethene	720	140	ug/L	SW846 8260B
MB2 03/24/04 09:45 002				
cis-1,2-Dichloroethene	61	33	ug/L	SW846 8260B
1,1,1-Trichloroethane	39	33	ug/L	SW846 8260B
Trichloroethene	210	33	ug/L	SW846 8260B
SEEP H 03/24/04 10:15 003				
cis-1,2-Dichloroethene	12	5.0	ug/L	SW846 8260B
Trichloroethene	15	5.0	ug/L	SW846 8260B
SEEP G 03/24/04 10:30 004				
cis-1,2-Dichloroethene	13	5.0	ug/L	SW846 8260B
SEEP Z04 03/24/04 12:00 008				
Trichloroethene	690	140	ug/L	SW846 8260B
SEEP J 03/24/04 12:50 010				
cis-1,2-Dichloroethene	84	17	ug/L	SW846 8260B
Vinyl chloride	26	6.7	ug/L	SW846 8260B
SEEP K 03/24/04 13:30 011				
cis-1,2-Dichloroethene	10	5.0	ug/L	SW846 8260B
SEEP L 03/24/04 14:15 012				
cis-1,2-Dichloroethene	5.4	5.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A4C260233

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A4C260233-001 Work Order #...: GC1TJ1AA Matrix.....: WG
Date Sampled...: 03/24/04 09:20 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 28.57 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	140	ug/L
Bromodichloromethane	ND	140	ug/L
Bromoform	ND	140	ug/L
Bromomethane	ND	140	ug/L
Carbon tetrachloride	ND	140	ug/L
Chlorobenzene	ND	140	ug/L
Chlorodibromomethane	ND	140	ug/L
Chloroethane	ND	140	ug/L
Chloroform	ND	140	ug/L
Chloromethane	ND	140	ug/L
Dibromomethane	ND	140	ug/L
1,2-Dichlorobenzene	ND	140	ug/L
1,3-Dichlorobenzene	ND	140	ug/L
1,4-Dichlorobenzene	ND	140	ug/L
Dichlorodifluoromethane	ND	140	ug/L
1,1-Dichloroethane	ND	140	ug/L
1,2-Dichloroethane	ND	140	ug/L
1,1-Dichloroethene	ND	140	ug/L
cis-1,2-Dichloroethene	ND	140	ug/L
trans-1,2-Dichloroethene	ND	140	ug/L
1,2-Dichloropropane	ND	140	ug/L
1,3-Dichloropropane	ND	140	ug/L
2,2-Dichloropropane	ND	140	ug/L
1,1-Dichloropropene	ND	140	ug/L
1,4-Dioxane	ND	7100	ug/L
Ethylbenzene	ND	140	ug/L
Trichlorofluoromethane	ND	140	ug/L
Hexachlorobutadiene	ND	140	ug/L
Isopropylbenzene	ND	140	ug/L
Methylene chloride	ND	140	ug/L
Naphthalene	ND	140	ug/L
Styrene	ND	140	ug/L
1,1,1,2-Tetrachloroethane	ND	140	ug/L
1,1,2,2-Tetrachloroethane	ND	140	ug/L
Tetrachloroethene	ND	140	ug/L
Toluene	ND	140	ug/L
1,2,4-Trichloro-benzene	ND	140	ug/L
1,1,1-Trichloroethane	ND	140	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A4C260233-001 Work Order #...: GC1TJ1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	140	ug/L
Trichloroethene	**720**	**140**	**ug/L**
1,2,3-Trichloropropane	ND	140	ug/L
Vinyl chloride	ND	57	ug/L
Xylenes (total)	ND	140	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	86	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MB2

GC/MS Volatiles

Lot-Sample #...: A4C260233-002 Work Order #...: GC1TW1AA Matrix.....: WG
Date Sampled...: 03/24/04 09:45 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 6.67 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	33	ug/L
Bromodichloromethane	ND	33	ug/L
Bromoform	ND	33	ug/L
Bromomethane	ND	33	ug/L
Carbon tetrachloride	ND	33	ug/L
Chlorobenzene	ND	33	ug/L
Chlorodibromomethane	ND	33	ug/L
Chloroethane	ND	33	ug/L
Chloroform	ND	33	ug/L
Chloromethane	ND	33	ug/L
Dibromomethane	ND	33	ug/L
1,2-Dichlorobenzene	ND	33	ug/L
1,3-Dichlorobenzene	ND	33	ug/L
1,4-Dichlorobenzene	ND	33	ug/L
Dichlorodifluoromethane	ND	33	ug/L
1,1-Dichloroethane	ND	33	ug/L
1,2-Dichloroethane	ND	33	ug/L
1,1-Dichloroethene	ND	33	ug/L
cis-1,2-Dichloroethene	**61**	**33**	**ug/L**
trans-1,2-Dichloroethene	ND	33	ug/L
1,2-Dichloropropane	ND	33	ug/L
1,3-Dichloropropane	ND	33	ug/L
2,2-Dichloropropane	ND	33	ug/L
1,1-Dichloropropene	ND	33	ug/L
1,4-Dioxane	ND	1700	ug/L
Ethylbenzene	ND	33	ug/L
Trichlorofluoromethane	ND	33	ug/L
Hexachlorobutadiene	ND	33	ug/L
Isopropylbenzene	ND	33	ug/L
Methylene chloride	ND	33	ug/L
Naphthalene	ND	33	ug/L
Styrene	ND	33	ug/L
1,1,1,2-Tetrachloroethane	ND	33	ug/L
1,1,2,2-Tetrachloroethane	ND	33	ug/L
Tetrachloroethene	ND	33	ug/L
Toluene	ND	33	ug/L
1,2,4-Trichloro-benzene	ND	33	ug/L
1,1,1-Trichloroethane	**39**	**33**	**ug/L**

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Client Sample ID: MB2

GC/MS Volatiles

Lot-Sample #...: A4C260233-002 Work Order #...: GC1TW1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	33	ug/L
Trichloroethene	**210**	33	**ug/L**
1,2,3-Trichloropropane	ND	33	ug/L
Vinyl chloride	ND	13	ug/L
Xylenes (total)	ND	33	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MB2

GC/MS Volatiles

Lot-Sample #...: A4C260233-002 **Work Order #...:** GC1TW1AA **Matrix.....:** WG
Date Sampled...: 03/24/04 09:45 **Date Received..:** 03/26/04
Prep Date.....: 04/01/04 **Analysis Date..:** 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 6.67 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	6.7	ug/L
Bromodichloromethane	ND	6.7	ug/L
Bromoform	ND	6.7	ug/L
Bromomethane	ND	6.7	ug/L
Carbon tetrachloride	ND	6.7	ug/L
Chlorobenzene	ND	6.7	ug/L
Chlorodibromomethane	ND	6.7	ug/L
Chloroethane	ND	6.7	ug/L
Chloroform	ND	6.7	ug/L
Chloromethane	ND	6.7	ug/L
Dibromomethane	ND	6.7	ug/L
1,2-Dichlorobenzene	ND	6.7	ug/L
1,3-Dichlorobenzene	ND	6.7	ug/L
1,4-Dichlorobenzene	ND	6.7	ug/L
Dichlorodifluoromethane	ND	6.7	ug/L
1,1-Dichloroethane	ND	6.7	ug/L
1,2-Dichloroethane	ND	6.7	ug/L
1,1-Dichloroethene	**24**	**6.7**	**ug/L**
cis-1,2-Dichloroethene	**61**	**6.7**	**ug/L**
trans-1,2-Dichloroethene	ND	6.7	ug/L
1,2-Dichloropropane	ND	6.7	ug/L
1,3-Dichloropropane	ND	6.7	ug/L
2,2-Dichloropropane	ND	6.7	ug/L
1,1-Dichloropropene	ND	6.7	ug/L
1,4-Dioxane	ND	330	ug/L
Ethylbenzene	ND	6.7	ug/L
Trichlorofluoromethane	ND	6.7	ug/L
Hexachlorobutadiene	ND	6.7	ug/L
Isopropylbenzene	ND	6.7	ug/L
Methylene chloride	ND	6.7	ug/L
Naphthalene	ND	6.7	ug/L
Styrene	ND	6.7	ug/L
1,1,1,2-Tetrachloroethane	ND	6.7	ug/L
1,1,2,2-Tetrachloroethane	ND	6.7	ug/L
Tetrachloroethene	ND	6.7	ug/L
Toluene	ND	6.7	ug/L
1,2,4-Trichloro-benzene	ND	6.7	ug/L
1,1,1-Trichloroethane	**39**	**6.7**	**ug/L**

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Client Sample ID: MB2

GC/MS Volatiles

Lot-Sample #...: A4C260233-002 **Work Order #...:** GC1TW1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	6.7	ug/L
Trichloroethene	**210**	**6.7**	**ug/L**
1,2,3-Trichloropropane	ND	6.7	ug/L
Vinyl chloride	ND	6.7	ug/L
Xylenes (total)	ND	6.7	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

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Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A4C260233-003 Work Order #...: GC1TX1AA Matrix.....: WG
Date Sampled...: 03/24/04 10:15 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	**12**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A4C260233-003 Work Order #...: GC1TX1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	**15**	**5.0**	**ug/L**
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A4C260233-004 Work Order #...: GC1T31AA Matrix.....: WG
Date Sampled...: 03/24/04 10:30 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	**13**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A4C260233-004 Work Order #...: GC1T31AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	83	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A4C260233-005 Work Order #...: GC1T41AA Matrix.....: WG
Date Sampled...: 03/24/04 10:45 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A4C260233-005 Work Order #...: GC1T41AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	82	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A4C260233-006 Work Order #...: GC1T61AA Matrix.....: WG
Date Sampled...: 03/24/04 11:15 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A4C260233-006 Work Order #...: GC1T61AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A4C260233-007 Work Order #...: GC1T91AA Matrix.....: WG
Date Sampled...: 03/24/04 11:40 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A4C260233-007 Work Order #...: GC1T91AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP Z04

GC/MS Volatiles

Lot-Sample #...: A4C260233-008 Work Order #...: GC1VA1AA Matrix.....: WG
Date Sampled...: 03/24/04 12:00 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 28.57 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	140	ug/L
Bromodichloromethane	ND	140	ug/L
Bromoform	ND	140	ug/L
Bromomethane	ND	140	ug/L
Carbon tetrachloride	ND	140	ug/L
Chlorobenzene	ND	140	ug/L
Chlorodibromomethane	ND	140	ug/L
Chloroethane	ND	140	ug/L
Chloroform	ND	140	ug/L
Chloromethane	ND	140	ug/L
Dibromomethane	ND	140	ug/L
1,2-Dichlorobenzene	ND	140	ug/L
1,3-Dichlorobenzene	ND	140	ug/L
1,4-Dichlorobenzene	ND	140	ug/L
Dichlorodifluoromethane	ND	140	ug/L
1,1-Dichloroethane	ND	140	ug/L
1,2-Dichloroethane	ND	140	ug/L
1,1-Dichloroethene	ND	140	ug/L
cis-1,2-Dichloroethene	ND	140	ug/L
trans-1,2-Dichloroethene	ND	140	ug/L
1,2-Dichloropropane	ND	140	ug/L
1,3-Dichloropropane	ND	140	ug/L
2,2-Dichloropropane	ND	140	ug/L
1,1-Dichloropropene	ND	140	ug/L
1,4-Dioxane	ND	7100	ug/L
Ethylbenzene	ND	140	ug/L
Trichlorofluoromethane	ND	140	ug/L
Hexachlorobutadiene	ND	140	ug/L
Isopropylbenzene	ND	140	ug/L
Methylene chloride	ND	140	ug/L
Naphthalene	ND	140	ug/L
Styrene	ND	140	ug/L
1,1,1,2-Tetrachloroethane	ND	140	ug/L
1,1,2,2-Tetrachloroethane	ND	140	ug/L
Tetrachloroethene	ND	140	ug/L
Toluene	ND	140	ug/L
1,2,4-Trichloro-benzene	ND	140	ug/L
1,1,1-Trichloroethane	ND	140	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP Z04

GC/MS Volatiles

Lot-Sample #...: A4C260233-008 Work Order #...: GC1VA1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	140	ug/L
Trichloroethene	**690**	**140**	**ug/L**
1,2,3-Trichloropropane	ND	140	ug/L
Vinyl chloride	ND	57	ug/L
Xylenes (total)	ND	140	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP B

GC/MS Volatiles

Lot-Sample #...: A4C260233-009 Work Order #...: GC1WJ1AA Matrix.....: WG
Date Sampled...: 03/24/04 12:15 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP B

GC/MS Volatiles

Lot-Sample #...: A4C260233-009 Work Order #...: GC1WJ1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4C260233-010 Work Order #...: GC1WN1AA Matrix.....: WG
Date Sampled...: 03/24/04 12:50 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 3.33 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	17	ug/L
Bromodichloromethane	ND	17	ug/L
Bromoform	ND	17	ug/L
Bromomethane	ND	17	ug/L
Carbon tetrachloride	ND	17	ug/L
Chlorobenzene	ND	17	ug/L
Chlorodibromomethane	ND	17	ug/L
Chloroethane	ND	17	ug/L
Chloroform	ND	17	ug/L
Chloromethane	ND	17	ug/L
Dibromomethane	ND	17	ug/L
1,2-Dichlorobenzene	ND	17	ug/L
1,3-Dichlorobenzene	ND	17	ug/L
1,4-Dichlorobenzene	ND	17	ug/L
Dichlorodifluoromethane	ND	17	ug/L
1,1-Dichloroethane	ND	17	ug/L
1,2-Dichloroethane	ND	17	ug/L
1,1-Dichloroethene	ND	17	ug/L
cis-1,2-Dichloroethene	**84**	**17**	**ug/L**
trans-1,2-Dichloroethene	ND	17	ug/L
1,2-Dichloropropane	ND	17	ug/L
1,3-Dichloropropane	ND	17	ug/L
2,2-Dichloropropane	ND	17	ug/L
1,1-Dichloropropene	ND	17	ug/L
1,4-Dioxane	ND	830	ug/L
Ethylbenzene	ND	17	ug/L
Trichlorofluoromethane	ND	17	ug/L
Hexachlorobutadiene	ND	17	ug/L
Isopropylbenzene	ND	17	ug/L
Methylene chloride	ND	17	ug/L
Naphthalene	ND	17	ug/L
Styrene	ND	17	ug/L
1,1,1,2-Tetrachloroethane	ND	17	ug/L
1,1,2,2-Tetrachloroethane	ND	17	ug/L
Tetrachloroethene	ND	17	ug/L
Toluene	ND	17	ug/L
1,2,4-Trichloro-benzene	ND	17	ug/L
1,1,1-Trichloroethane	ND	17	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4C260233-010 Work Order #...: GC1WN1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	17	ug/L
Trichloroethene	ND	17	ug/L
1,2,3-Trichloropropane	ND	17	ug/L
Vinyl chloride	**26**	**6.7**	**ug/L**
Xylenes (total)	ND	17	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4C260233-010 **Work Order #...:** GC1WN1AA **Matrix.....:** WG
Date Sampled...: 03/24/04 12:50 **Date Received..:** 03/26/04
Prep Date.....: 04/01/04 **Analysis Date..:** 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 3.33 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	**84**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4C260233-010 **Work Order #...:** GC1WN1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	**26**	**3.3**	**ug/L**
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	84	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A4C260233-011 Work Order #...: GC1WT1AA Matrix.....: WG
Date Sampled...: 03/24/04 13:30 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	**10**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A4C260233-011 Work Order #...: GC1WT1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	86	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A4C260233-012 Work Order #...: GC1WW1AA Matrix.....: WG
Date Sampled...: 03/24/04 14:15 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	**5.4**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A4C260233-012 Work Order #...: GC1WW1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4C260233 Work Order #...: GDEG91AA Matrix.....: WATER
MB Lot-Sample #: A4D020000-197

Prep Date.....: 04/01/04
Analysis Date..: 04/01/04 Prep Batch #...: 4093197
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4C260233 Work Order #...: GDEG91AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
1,2-Dichloroethane-d4	86	(61 - 128)
Toluene-d8	82	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4C260233 **Work Order #...:** GDEG91AA **Matrix.....:** WATER
MB Lot-Sample #: A4D020000-197

Prep Date.....: 04/01/04
Analysis Date..: 04/01/04 **Prep Batch #...:** 4093197
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4C260233 **Work Order #...:** GDEG91AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
1,2-Dichloroethane-d4	86	(61 - 128)
Toluene-d8	82	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4C260233
LCS Lot-Sample#: A4D020000-197
Prep Date.....: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 1

Work Order #...: GDEG91AC-LCS
GDEG91AD-LCSD
Analysis Date..: 04/01/04

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	101	(63 - 130)			SW846 8260B
	97	(63 - 130)	3.4	(0-20)	SW846 8260B
Trichloroethene	99	(75 - 122)			SW846 8260B
	101	(75 - 122)	2.5	(0-20)	SW846 8260B
Benzene	95	(80 - 116)			SW846 8260B
	96	(80 - 116)	0.58	(0-20)	SW846 8260B
Toluene	88	(74 - 119)			SW846 8260B
	88	(74 - 119)	0.050	(0-20)	SW846 8260B
Chlorobenzene	97	(76 - 117)			SW846 8260B
	97	(76 - 117)	0.70	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
	87	(61 - 128)
Toluene-d8	85	(76 - 110)
	86	(76 - 110)
4-Bromofluorobenzene	104	(74 - 116)
	104	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4C260233 Work Order #...: GC1TJ1AC-MS Matrix.....: WG
MS Lot-Sample #: A4C260233-001 GC1TJ1AD-MSD
Date Sampled...: 03/24/04 09:20 Date Received..: 03/26/04
Prep Date.....: 04/01/04 Analysis Date..: 04/01/04
Prep Batch #...: 4093197
Dilution Factor: 28.57

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	95	(62 - 130)			SW846 8260B
	106	(62 - 130)	8.5	(0-20)	SW846 8260B
Trichloroethene	86	(62 - 130)			SW846 8260B
	95	(62 - 130)	2.6	(0-20)	SW846 8260B
Benzene	95	(78 - 118)			SW846 8260B
	98	(78 - 118)	3.6	(0-20)	SW846 8260B
Toluene	87	(70 - 119)			SW846 8260B
	88	(70 - 119)	1.3	(0-20)	SW846 8260B
Chlorobenzene	96	(76 - 117)			SW846 8260B
	98	(76 - 117)	2.0	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
	87	(61 - 128)
Toluene-d8	87	(76 - 110)
	87	(76 - 110)
4-Bromofluorobenzene	106	(74 - 116)
	107	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Serial Number 19204

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location: STL North Canton, 4101 Shuffel Dr NW, North Canton, OH 44720
Phone: 3304979376
Fax: 3304970772

PROJECT REFERENCE: TK Louisville	PROJECT NO.: 12000-0-2050	PROJECT LOCATION (STATE): GA
STL (LAB) PROJECT MANAGER: Roger Toth	P.O. NUMBER:	CONTRACT NO.:
CLIENT (SITE) PM: Rhonda Quinn	CLIENT PHONE: 7704213516	CLIENT FAX: 7704213486
CLIENT NAME: MacTec	CLIENT E-MAIL: rnquinn@mactec.com	
CLIENT ADDRESS: 3200 Town Point Dr Kennesaw, GA 30144		
COMPANY CONTRACTING THIS WORK (if applicable):		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ☒
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS: Site specific VOCs 8260B

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT,...)

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
3-24-04	0920	Seep C	G	X				3	
3-24-04	0945	MB2	G	X				3	
3-24-04	1015	Seep H	G	X				3	
3-24-04	1030	Seep G	G	X				3	
3-24-04	1045	Seep I	G	X				3	
3-24-04	1115	Seep D	G	X				3	
3-24-04	1140	Seep #2	G	X				3	
3-24-04	1200	Seep Z04	G	X				3	
3-24-04	1215	Seep B	G	X				3	
3-24-04	1250	Seep J	G	X				3	
3-24-04	1330	Seep K	G	X				3	
3-24-04	1415	Seep L	G	X				3	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]			[signature]	3-25-04	1000			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	3/26/04	925	YES NO NA			

SAMPLE SUMMARY

A4F250401

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GJ3VA	001	SEEP G	06/23/04	14:55
GJ3VH	002	SEEP I	06/23/04	14:41
GJ3VJ	003	SEEP D	06/23/04	14:15
GJ3VK	004	SEEP J	06/23/04	16:25
GJ3VL	005	SEEP A	06/23/04	16:44
GJ3VM	006	SEEP H	06/23/04	12:20
GJ3VP	007	SEEP B	06/23/04	11:40
GJ3VR	008	SEEP #2	06/23/04	12:05
GJ3VT	009	TRIP BLANK	06/23/04	10:00
GJ3VX	010	MANSON BRANCH #2	06/23/04	15:28
GJ3V1	011	SEEP C	06/23/04	15:40
GJ3V3	012	SEEP L	06/24/04	08:02
GJ3V7	013	SEEP K	06/24/04	08:18
GJ3V8	014	SEEP Z604	06/24/04	12:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 12000-0-2050

TK - LOUISVILLE, GA

Lot #: A4F250401

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

July 20, 2004

CASE NARRATIVE

A4F250401

The following report contains the analytical results for thirteen water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK - Louisville, GA Site, project number 12000-0-2050. The samples were received June 25, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on July 13, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 4.4°C.

GC/MS VOLATILES

The matrix spike/matrix spike duplicate(s) for MANSON BRANCH #2 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A4F250401

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SEEP G 06/23/04 14:55 001				
cis-1,2-Dichloroethene	9.3	5.0	ug/L	SW846 8260B
SEEP J 06/23/04 16:25 004				
cis-1,2-Dichloroethene	66	12	ug/L	SW846 8260B
SEEP H 06/23/04 12:20 006				
cis-1,2-Dichloroethene	30	8.4	ug/L	SW846 8260B
MANSON BRANCH #2 06/23/04 15:28 010				
1,1,1-Trichloroethane	300	250	ug/L	SW846 8260B
Trichloroethene	1300	250	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A4F250401

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A4F250401-001 Work Order #...: GJ3VA1AA Matrix.....: WG
Date Sampled...: 06/23/04 14:55 Date Received..: 06/25/04
Prep Date.....: 07/02/04 Analysis Date..: 07/02/04
Prep Batch #...: 4188296
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	**9.3**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A4F250401-001 Work Order #...: GJ3VA1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	113	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A4F250401-002 Work Order #...: GJ3VH1AA Matrix.....: WG
Date Sampled...: 06/23/04 14:41 Date Received..: 06/25/04
Prep Date.....: 07/02/04 Analysis Date..: 07/02/04
Prep Batch #...: 4188296
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L

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Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A4F250401-002 Work Order #...: GJ3VH1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	112	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A4F250401-003 **Work Order #...:** GJ3VJ1AA **Matrix.....:** WG
Date Sampled...: 06/23/04 14:15 **Date Received..:** 06/25/04
Prep Date.....: 07/02/04 **Analysis Date..:** 07/02/04
Prep Batch #...: 4188296
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L

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Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A4F250401-003 Work Order #...: GJ3VJ1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

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Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4F250401-004 Work Order #...: GJ3VK1AA Matrix.....: WG
Date Sampled...: 06/23/04 16:25 Date Received..: 06/25/04
Prep Date.....: 07/02/04 Analysis Date..: 07/02/04
Prep Batch #...: 4188296
Dilution Factor: 2.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	12	ug/L
Bromodichloromethane	ND	12	ug/L
Bromoform	ND	12	ug/L
Bromomethane	ND	12	ug/L
Carbon tetrachloride	ND	12	ug/L
Chlorobenzene	ND	12	ug/L
Chlorodibromomethane	ND	12	ug/L
Chloroethane	ND	12	ug/L
Chloroform	ND	12	ug/L
Chloromethane	ND	12	ug/L
Dibromomethane	ND	12	ug/L
1,2-Dichlorobenzene	ND	12	ug/L
1,3-Dichlorobenzene	ND	12	ug/L
1,4-Dichlorobenzene	ND	12	ug/L
Dichlorodifluoromethane	ND	12	ug/L
1,1-Dichloroethane	ND	12	ug/L
1,2-Dichloroethane	ND	12	ug/L
1,1-Dichloroethene	ND	12	ug/L
cis-1,2-Dichloroethene	**66**	**12**	**ug/L**
trans-1,2-Dichloroethene	ND	12	ug/L
1,2-Dichloropropane	ND	12	ug/L
1,3-Dichloropropane	ND	12	ug/L
2,2-Dichloropropane	ND	12	ug/L
1,1-Dichloropropene	ND	12	ug/L
1,4-Dioxane	ND	620	ug/L
Ethylbenzene	ND	12	ug/L
Trichlorofluoromethane	ND	12	ug/L
Hexachlorobutadiene	ND	12	ug/L
Isopropylbenzene	ND	12	ug/L
Methylene chloride	ND	12	ug/L
Naphthalene	ND	12	ug/L
Styrene	ND	12	ug/L
1,1,1,2-Tetrachloroethane	ND	12	ug/L
1,1,2,2-Tetrachloroethane	ND	12	ug/L
Tetrachloroethene	ND	12	ug/L
Toluene	ND	12	ug/L
1,2,4-Trichloro-benzene	ND	12	ug/L
1,1,1-Trichloroethane	ND	12	ug/L

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Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4F250401-004 Work Order #...: GJ3VK1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	12	ug/L
Trichloroethene	ND	12	ug/L
1,2,3-Trichloropropane	ND	12	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	ND	12	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP A

GC/MS Volatiles

Lot-Sample #...: A4F250401-005 Work Order #...: GJ3VL1AA Matrix.....: WG
Date Sampled...: 06/23/04 16:44 Date Received..: 06/25/04
Prep Date.....: 07/02/04 Analysis Date..: 07/02/04
Prep Batch #...: 4188296
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP A

GC/MS Volatiles

Lot-Sample #...: A4F250401-005 Work Order #...: GJ3VL1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A4F250401-006 Work Order #...: GJ3VM1AA Matrix.....: WG
Date Sampled...: 06/23/04 12:20 Date Received..: 06/25/04
Prep Date.....: 07/02/04 Analysis Date..: 07/02/04
Prep Batch #...: 4188296
Dilution Factor: 1.67 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	8.4	ug/L
Bromodichloromethane	ND	8.4	ug/L
Bromoform	ND	8.4	ug/L
Bromomethane	ND	8.4	ug/L
Carbon tetrachloride	ND	8.4	ug/L
Chlorobenzene	ND	8.4	ug/L
Chlorodibromomethane	ND	8.4	ug/L
Chloroethane	ND	8.4	ug/L
Chloroform	ND	8.4	ug/L
Chloromethane	ND	8.4	ug/L
Dibromomethane	ND	8.4	ug/L
1,2-Dichlorobenzene	ND	8.4	ug/L
1,3-Dichlorobenzene	ND	8.4	ug/L
1,4-Dichlorobenzene	ND	8.4	ug/L
Dichlorodifluoromethane	ND	8.4	ug/L
1,1-Dichloroethane	ND	8.4	ug/L
1,2-Dichloroethane	ND	8.4	ug/L
1,1-Dichloroethene	ND	8.4	ug/L
cis-1,2-Dichloroethene	**30**	**8.4**	**ug/L**
trans-1,2-Dichloroethene	ND	8.4	ug/L
1,2-Dichloropropane	ND	8.4	ug/L
1,3-Dichloropropane	ND	8.4	ug/L
2,2-Dichloropropane	ND	8.4	ug/L
1,1-Dichloropropene	ND	8.4	ug/L
1,4-Dioxane	ND	420	ug/L
Ethylbenzene	ND	8.4	ug/L
Trichlorofluoromethane	ND	8.4	ug/L
Hexachlorobutadiene	ND	8.4	ug/L
Isopropylbenzene	ND	8.4	ug/L
Methylene chloride	ND	8.4	ug/L
Naphthalene	ND	8.4	ug/L
Styrene	ND	8.4	ug/L
1,1,1,2-Tetrachloroethane	ND	8.4	ug/L
1,1,2,2-Tetrachloroethane	ND	8.4	ug/L
Tetrachloroethene	ND	8.4	ug/L
Toluene	ND	8.4	ug/L
1,2,4-Trichloro-benzene	ND	8.4	ug/L
1,1,1-Trichloroethane	ND	8.4	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A4F250401-006 Work Order #...: GJ3VM1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	8.4	ug/L
Trichloroethene	ND	8.4	ug/L
1,2,3-Trichloropropane	ND	8.4	ug/L
Vinyl chloride	ND	3.3	ug/L
Xylenes (total)	ND	8.4	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP B

GC/MS Volatiles

Lot-Sample #...: A4F250401-007 Work Order #...: GJ3VP1AA Matrix.....: WG
Date Sampled...: 06/23/04 11:40 Date Received..: 06/25/04
Prep Date.....: 07/03/04 Analysis Date..: 07/03/04
Prep Batch #...: 4189493
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP B

GC/MS Volatiles

Lot-Sample #...: A4F250401-007 Work Order #...: GJ3VP1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	114	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A4F250401-008 Work Order #...: GJ3VR1AA Matrix.....: WG
Date Sampled...: 06/23/04 12:05 Date Received..: 06/25/04
Prep Date.....: 07/03/04 Analysis Date..: 07/03/04
Prep Batch #...: 4189493
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A4F250401-008 Work Order #...: GJ3VR1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	112	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4F250401-009 Work Order #...: GJ3VT1AA Matrix.....: WQ
Date Sampled...: 06/23/04 10:00 Date Received..: 06/25/04
Prep Date.....: 07/03/04 Analysis Date..: 07/03/04
Prep Batch #...: 4189493
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4F250401-009 Work Order #...: GJ3VT1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MANSON BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A4F250401-010 Work Order #...: GJ3VX1AA Matrix.....: WG
Date Sampled...: 06/23/04 15:28 Date Received..: 06/25/04
Prep Date.....: 07/02/04 Analysis Date..: 07/02/04
Prep Batch #...: 4188296
Dilution Factor: 50 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	250	ug/L
Bromodichloromethane	ND	250	ug/L
Bromoform	ND	250	ug/L
Bromomethane	ND	250	ug/L
Carbon tetrachloride	ND	250	ug/L
Chlorobenzene	ND	250	ug/L
Chlorodibromomethane	ND	250	ug/L
Chloroethane	ND	250	ug/L
Chloroform	ND	250	ug/L
Chloromethane	ND	250	ug/L
Dibromomethane	ND	250	ug/L
1,2-Dichlorobenzene	ND	250	ug/L
1,3-Dichlorobenzene	ND	250	ug/L
1,4-Dichlorobenzene	ND	250	ug/L
Dichlorodifluoromethane	ND	250	ug/L
1,1-Dichloroethane	ND	250	ug/L
1,2-Dichloroethane	ND	250	ug/L
1,1-Dichloroethene	ND	250	ug/L
cis-1,2-Dichloroethene	ND	250	ug/L
trans-1,2-Dichloroethene	ND	250	ug/L
1,2-Dichloropropane	ND	250	ug/L
1,3-Dichloropropane	ND	250	ug/L
2,2-Dichloropropane	ND	250	ug/L
1,1-Dichloropropene	ND	250	ug/L
1,4-Dioxane	ND	12000	ug/L
Ethylbenzene	ND	250	ug/L
Trichlorofluoromethane	ND	250	ug/L
Hexachlorobutadiene	ND	250	ug/L
Isopropylbenzene	ND	250	ug/L
Methylene chloride	ND	250	ug/L
Naphthalene	ND	250	ug/L
Styrene	ND	250	ug/L
1,1,1,2-Tetrachloroethane	ND	250	ug/L
1,1,2,2-Tetrachloroethane	ND	250	ug/L
Tetrachloroethene	ND	250	ug/L
Toluene	ND	250	ug/L
1,2,4-Trichloro-benzene	ND	250	ug/L
1,1,1-Trichloroethane	**300**	**250**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MANSON BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A4F250401-010 Work Order #...: GJ3VX1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	250	ug/L
Trichloroethene	**1300**	**250**	**ug/L**
1,2,3-Trichloropropane	ND	250	ug/L
Vinyl chloride	ND	100	ug/L
Xylenes (total)	ND	250	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	113	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A4F250401-011 Work Order #...: GJ3V11AA Matrix.....: WG
Date Sampled...: 06/23/04 15:40 Date Received..: 06/25/04
Prep Date.....: 07/03/04 Analysis Date..: 07/03/04
Prep Batch #...: 4189493
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A4F250401-011 **Work Order #...:** GJ3V11AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	106	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A4F250401-012 **Work Order #...:** GJ3V31AA **Matrix.....:** WG
Date Sampled...: 06/24/04 08:02 **Date Received..:** 06/25/04
Prep Date.....: 07/03/04 **Analysis Date..:** 07/03/04
Prep Batch #...: 4189493
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A4F250401-012 Work Order #...: GJ3V31AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	116	(61 - 128)
Toluene-d8	87	(76 - 110)
4-Bromofluorobenzene	81	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A4F250401-013 Work Order #...: GJ3V71AA Matrix.....: WG
Date Sampled...: 06/24/04 08:18 Date Received..: 06/25/04
Prep Date.....: 07/03/04 Analysis Date..: 07/03/04
Prep Batch #...: 4189493
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A4F250401-013 Work Order #...: GJ3V71AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	110	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP Z604

GC/MS Volatiles

Lot-Sample #...: A4F250401-014 Work Order #...: GJ3V81AA Matrix.....: WG
Date Sampled...: 06/24/04 12:00 Date Received..: 06/25/04
Prep Date.....: 07/03/04 Analysis Date..: 07/03/04
Prep Batch #...: 4189493
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP Z604

GC/MS Volatiles

Lot-Sample #...: A4F250401-014 Work Order #...: GJ3V81AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	113	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4F250401 **Work Order #...:** GKJ1H1AA **Matrix.....:** WATER
MB Lot-Sample #: A4G060000-296

Prep Date.....: 07/02/04
Analysis Date..: 07/02/04 **Prep Batch #...:** 4188296
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4F250401 **Work Order #...:** GKJ1H1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4F250401 **Work Order #...:** GKMJH1AA **Matrix.....:** WATER
MB Lot-Sample #: A4G070000-493

Prep Date.....: 07/02/04
Analysis Date..: 07/02/04 **Prep Batch #...:** 4189493
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4F250401 **Work Order #...:** GKMJH1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	113	(73 - 122)
1,2-Dichloroethane-d4	116	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4F250401 **Work Order #...:** GKJ1H1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4G060000-296 GKJ1H1AD-LCSD
Prep Date.....: 07/02/04 **Analysis Date..:** 07/02/04
Prep Batch #...: 4188296
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**109**	**(63 - 130)**			**SW846 8260B**
	105	**(63 - 130)**	**3.8**	**(0-20)**	**SW846 8260B**
Trichloroethene	**92**	**(75 - 122)**			**SW846 8260B**
	90	**(75 - 122)**	**2.3**	**(0-20)**	**SW846 8260B**
Benzene	**101**	**(80 - 116)**			**SW846 8260B**
	97	**(80 - 116)**	**3.9**	**(0-20)**	**SW846 8260B**
Toluene	**113**	**(74 - 119)**			**SW846 8260B**
	114	**(74 - 119)**	**0.88**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**104**	**(76 - 117)**			**SW846 8260B**
	105	**(76 - 117)**	**0.94**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	92	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
	108	(61 - 128)
Toluene-d8	107	(76 - 110)
	107	(76 - 110)
4-Bromofluorobenzene	106	(74 - 116)
	111	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4F250401 **Work Order #...:** GKMJH1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4G070000-493 GKMJH1AD-LCSD
Prep Date.....: 07/02/04 **Analysis Date..:** 07/02/04
Prep Batch #...: 4189493
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**102**	**(63 - 130)**			**SW846 8260B**
	104	**(63 - 130)**	**2.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(75 - 122)**			**SW846 8260B**
	100	**(75 - 122)**	**1.2**	**(0-20)**	**SW846 8260B**
Benzene	**96**	**(80 - 116)**			**SW846 8260B**
	99	**(80 - 116)**	**3.0**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(74 - 119)**			**SW846 8260B**
	101	**(74 - 119)**	**5.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	100	**(76 - 117)**	**4.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
	108	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
	108	(61 - 128)
Toluene-d8	101	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	110	(74 - 116)
	112	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4F250401 **Work Order #...:** GJ3VX1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A4F250401-010 GJ3VX1AD-MSD
Date Sampled...: 06/23/04 15:28 **Date Received..:** 06/25/04
Prep Date.....: 07/02/04 **Analysis Date..:** 07/02/04
Prep Batch #...: 4188296
Dilution Factor: 50

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**103**	**(62 - 130)**			**SW846 8260B**
	109	**(62 - 130)**	**4.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**75**	**(62 - 130)**			**SW846 8260B**
	88	**(62 - 130)**	**3.8**	**(0-20)**	**SW846 8260B**
Benzene	**99**	**(78 - 118)**			**SW846 8260B**
	105	**(78 - 118)**	**6.2**	**(0-20)**	**SW846 8260B**
Toluene	**116**	**(70 - 119)**			**SW846 8260B**
	120 a	**(70 - 119)**	**4.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**108**	**(76 - 117)**			**SW846 8260B**
	113	**(76 - 117)**	**4.9**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	112	(61 - 128)
	114	(61 - 128)
Toluene-d8	110	(76 - 110)
	110	(76 - 110)
4-Bromofluorobenzene	113	(74 - 116)
	111	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4F250401 **Work Order #...:** GKDN61AF-MS **Matrix.....:** WATER
MS Lot-Sample #: A4G010244-001 GKDN61AG-MSD
Date Sampled...: 06/29/04 **Date Received..:** 07/01/04
Prep Date.....: 07/02/04 **Analysis Date..:** 07/02/04
Prep Batch #...: 4189493
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**105**	**(62 - 130)**			**SW846 8260B**
	104	**(62 - 130)**	**0.96**	**(0-20)**	**SW846 8260B**
Trichloroethene	**96**	**(62 - 130)**			**SW846 8260B**
	98	**(62 - 130)**	**2.3**	**(0-20)**	**SW846 8260B**
Benzene	**97**	**(78 - 118)**			**SW846 8260B**
	101	**(78 - 118)**	**4.3**	**(0-20)**	**SW846 8260B**
Toluene	**94**	**(70 - 119)**			**SW846 8260B**
	103	**(70 - 119)**	**8.7**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(76 - 117)**			**SW846 8260B**
	99	**(76 - 117)**	**4.5**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
	102	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	106	(61 - 128)
Toluene-d8	100	(76 - 110)
	105	(76 - 110)
4-Bromofluorobenzene	110	(74 - 116)
	115	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT **STL**
Severn Trent Laboratories, Inc.

45

STL-4124 (0901)

Client: MACTEC ENGINEERING	Project Manager: Rhonda Quinn	Date: 6/23/04	Chain of Custody Number: 170532
Address: 3200 Town Point Dr, Suite 100	Telephone Number (Area Code)/Fax Number: 770-421-3400 / 770-421-3486	Lab Number:	Page 1 of 2
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact: TERRELL PARKER; Lab Contact: ROGER TOTH		
Project Name and Location (State): TK-Louisville, GA	Carrier/Waybill Number: FEDEX: 847101611985		

~~Contract/Purchase Order/Quote No:~~ Sample Team: TERRELL PARKER + BRENT KEENER

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8260B + 1,4-Dioxane	Cooler Temp °C upon Rept Elab	Special Instructions/ Conditions of Receipt
SEEP G	6/23/04	14:55		✓						3			X		
SEEP I	6/23/04	14:41		✓						3			X		
SEEP D	6/23/04	14:15		✓						3			X		
SEEP J	6/23/04	16:25		✓						3			X		
SEEP A	6/23/04	16:44		✓						3			X		
SEEP H	6/23/04	12:20		✓						3			X		
SEEP B	6/23/04	11:40		✓						3			X		
SEEP #2	6/23/04	12:05		✓						3			X		
TRIP BLANK	6/23/04	10:00		✓				1		~~3~~			X		only 1 VOA VIAL *
MANSON BRANCH #2	6/23/04	15:28		✓						3	6/23/04		X		
SEEP C	6/23/04	15:40		✓						3			X		
TEMPERATURE BLANK	6/23/04	10:08		✓						1				X	

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: JAMES T. PARKER [signature] TO FEDEX	6/24/04	08:55	1. Received By: [signature]	6-25-04	0930
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	MACTEC ENGINEERING
Address	3200 Town Point Dr, Suite 100
City	Kennesaw
State	GA
Zip Code	30144
Project Name and Location (State)	TK-Louisville, GA
~~Contract/Purchase Order/Quote No.~~	Sampling Team: Terrell Parker + Brent Keener
Project Manager	Rhonda Quinn
Telephone Number (Area Code)/Fax Number	770-421-3400 / 770-421-3486
Site Contact	Terrell Parker
Lab Contact	Robert Toth
Carrier/Waybill Number	
Date	6/24/04
Lab Number	
Chain of Custody Number	170533
Page	2 of 2

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Matrix: Aqueous	Matrix: Sed.	Matrix: Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		8260B + 1,4 Dioxane
SEEP L	6/24/04	08:02		✓							3				X
SEEP K	6/24/04	08:18		✓							3				X
SEEP Z 604	6/24/04	12:00		✓							3				X

6/24/04

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: James T. Parker to FedEx	6/24/04	08:55	1. Received By	6-25-04	0930
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A4I010168

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GPDDJ	001	SEEP B	08/30/04	11:15
GPDDQ	002	SEEP 2	08/30/04	11:30
GPDDR	003	SEEP D	08/31/04	11:15
GPDDT	004	SEEP H	08/31/04	11:40
GPDD0	005	SEEP G	08/31/04	12:05
GPDD3	006	SEEP C	08/31/04	12:25
GPDD5	007	SEEP Z 804	08/31/04	12:25
GPDD8	008	MANSON BRANCH 2	08/31/04	12:40
GPDEG	009	SEEP A	08/31/04	13:05
GPDEK	010	SEEP J	08/31/04	13:25
GPDEL	011	SEEP L	08/31/04	13:50
GPDEM	012	SEEP K	08/31/04	14:25
GPDEP	013	TRIP BLANK	08/31/04	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 1200002050.403

TK-LOUISVILLE (GA)

Lot #: A4I010168

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

September 16, 2004

CASE NARRATIVE

A4I010168

The following report contains the analytical results for twelve water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK-Louisville (GA) Site, project number 1200002050.403. The samples were received September 01, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on September 16, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 5.7°C.

GC/MS VOLATILES

Elevated reporting limits due to dilution for TICs for sample SEEP G.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Louisiana (#04112), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A4I010168

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SEEP H 08/31/04 11:40 004				
cis-1,2-Dichloroethene	13	5.0	ug/L	SW846 8260B
SEEP C 08/31/04 12:25 006				
1,1,1-Trichloroethane	380	310	ug/L	SW846 8260B
Trichloroethene	1300	310	ug/L	SW846 8260B
SEEP Z 804 08/31/04 12:25 007				
1,1,1-Trichloroethane	340	310	ug/L	SW846 8260B
Trichloroethene	1200	310	ug/L	SW846 8260B
MANSON BRANCH 2 08/31/04 12:40 008				
1,1-Dichloroethene	1000	620	ug/L	SW846 8260B
1,1,1-Trichloroethane	1900	620	ug/L	SW846 8260B
Trichloroethene	4400	620	ug/L	SW846 8260B
SEEP J 08/31/04 13:25 010				
cis-1,2-Dichloroethene	190	33	ug/L	SW846 8260B
SEEP K 08/31/04 14:25 012				
cis-1,2-Dichloroethene	85	20	ug/L	SW846 8260B
TRIP BLANK 08/31/04 013				
Methylene chloride	5.0	5.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A4I010168

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP B

GC/MS Volatiles

Lot-Sample #...: A4I010168-001 Work Order #...: GPDDJ1AA Matrix.....: WG
Date Sampled...: 08/30/04 11:15 Date Received..: 09/01/04
Prep Date.....: 09/10/04 Analysis Date..: 09/10/04
Prep Batch #...: 4254358
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP B

GC/MS Volatiles

Lot-Sample #...: A4I010168-001 Work Order #...: GPDDJ1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP 2

GC/MS Volatiles

Lot-Sample #...: A4I010168-002 Work Order #...: GPDDQ1AA Matrix.....: WG
Date Sampled...: 08/30/04 11:30 Date Received..: 09/01/04
Prep Date.....: 09/10/04 Analysis Date..: 09/10/04
Prep Batch #...: 4254358
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP 2

GC/MS Volatiles

Lot-Sample #...: A4I010168-002 **Work Order #...:** GPDDQ1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A4I010168-003 **Work Order #...:** GPDDR1AA **Matrix.....:** WG
Date Sampled...: 08/31/04 11:15 **Date Received..:** 09/01/04
Prep Date.....: 09/14/04 **Analysis Date..:** 09/14/04
Prep Batch #...: 4258251
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A4I010168-003 **Work Order #...:** GPDDR1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(73 - 122)
1,2-Dichloroethane-d4	83	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	81	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A4I010168-004 **Work Order #...:** GPDDT1AA **Matrix.....:** WG
Date Sampled...: 08/31/04 11:40 **Date Received..:** 09/01/04
Prep Date.....: 09/14/04 **Analysis Date..:** 09/14/04
Prep Batch #...: 4258251
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	**13**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A4I010168-004 Work Order #...: GPDDT1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(73 - 122)
1,2-Dichloroethane-d4	82	(61 - 128)
Toluene-d8	85	(76 - 110)
4-Bromofluorobenzene	78	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A4I010168-005 **Work Order #...:** GPDD01AA **Matrix.....:** WG
Date Sampled...: 08/31/04 12:05 **Date Received..:** 09/01/04
Prep Date.....: 09/14/04 **Analysis Date..:** 09/14/04
Prep Batch #...: 4258251
Dilution Factor: 1.43 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	7.2	ug/L
Bromodichloromethane	ND	7.2	ug/L
Bromoform	ND	7.2	ug/L
Bromomethane	ND	7.2	ug/L
Carbon tetrachloride	ND	7.2	ug/L
Chlorobenzene	ND	7.2	ug/L
Chlorodibromomethane	ND	7.2	ug/L
Chloroethane	ND	7.2	ug/L
Chloroform	ND	7.2	ug/L
Chloromethane	ND	7.2	ug/L
Dibromomethane	ND	7.2	ug/L
1,2-Dichlorobenzene	ND	7.2	ug/L
1,3-Dichlorobenzene	ND	7.2	ug/L
1,4-Dichlorobenzene	ND	7.2	ug/L
Dichlorodifluoromethane	ND	7.2	ug/L
1,1-Dichloroethane	ND	7.2	ug/L
1,2-Dichloroethane	ND	7.2	ug/L
1,1-Dichloroethene	ND	7.2	ug/L
cis-1,2-Dichloroethene	ND	7.2	ug/L
trans-1,2-Dichloroethene	ND	7.2	ug/L
1,2-Dichloropropane	ND	7.2	ug/L
1,3-Dichloropropane	ND	7.2	ug/L
2,2-Dichloropropane	ND	7.2	ug/L
1,1-Dichloropropene	ND	7.2	ug/L
1,4-Dioxane	ND	360	ug/L
Ethylbenzene	ND	7.2	ug/L
Trichlorofluoromethane	ND	7.2	ug/L
Hexachlorobutadiene	ND	7.2	ug/L
Isopropylbenzene	ND	7.2	ug/L
Methylene chloride	ND	7.2	ug/L
Naphthalene	ND	7.2	ug/L
Styrene	ND	7.2	ug/L
1,1,1,2-Tetrachloroethane	ND	7.2	ug/L
1,1,2,2-Tetrachloroethane	ND	7.2	ug/L
Tetrachloroethene	ND	7.2	ug/L
Toluene	ND	7.2	ug/L
1,2,4-Trichloro-benzene	ND	7.2	ug/L
1,1,1-Trichloroethane	ND	7.2	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A4I010168-005 Work Order #...: GPDD01AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	7.2	ug/L
Trichloroethene	ND	7.2	ug/L
1,2,3-Trichloropropane	ND	7.2	ug/L
Vinyl chloride	ND	2.9	ug/L
Xylenes (total)	ND	7.2	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(73 - 122)
1,2-Dichloroethane-d4	82	(61 - 128)
Toluene-d8	87	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

NOTE(S):

Elevated reporting limits due to dilution for TICs.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A4I010168-006 **Work Order #...:** GPDD31AA **Matrix.....:** WG
Date Sampled...: 08/31/04 12:25 **Date Received..:** 09/01/04
Prep Date.....: 09/13/04 **Analysis Date..:** 09/13/04
Prep Batch #...: 4258392
Dilution Factor: 62.5 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	310	ug/L
Bromodichloromethane	ND	310	ug/L
Bromoform	ND	310	ug/L
Bromomethane	ND	310	ug/L
Carbon tetrachloride	ND	310	ug/L
Chlorobenzene	ND	310	ug/L
Chlorodibromomethane	ND	310	ug/L
Chloroethane	ND	310	ug/L
Chloroform	ND	310	ug/L
Chloromethane	ND	310	ug/L
Dibromomethane	ND	310	ug/L
1,2-Dichlorobenzene	ND	310	ug/L
1,3-Dichlorobenzene	ND	310	ug/L
1,4-Dichlorobenzene	ND	310	ug/L
Dichlorodifluoromethane	ND	310	ug/L
1,1-Dichloroethane	ND	310	ug/L
1,2-Dichloroethane	ND	310	ug/L
1,1-Dichloroethene	ND	310	ug/L
cis-1,2-Dichloroethene	ND	310	ug/L
trans-1,2-Dichloroethene	ND	310	ug/L
1,2-Dichloropropane	ND	310	ug/L
1,3-Dichloropropane	ND	310	ug/L
2,2-Dichloropropane	ND	310	ug/L
1,1-Dichloropropene	ND	310	ug/L
1,4-Dioxane	ND	16000	ug/L
Ethylbenzene	ND	310	ug/L
Trichlorofluoromethane	ND	310	ug/L
Hexachlorobutadiene	ND	310	ug/L
Isopropylbenzene	ND	310	ug/L
Methylene chloride	ND	310	ug/L
Naphthalene	ND	310	ug/L
Styrene	ND	310	ug/L
1,1,1,2-Tetrachloroethane	ND	310	ug/L
1,1,2,2-Tetrachloroethane	ND	310	ug/L
Tetrachloroethene	ND	310	ug/L
Toluene	ND	310	ug/L
1,2,4-Trichloro-benzene	ND	310	ug/L
1,1,1-Trichloroethane	**380**	**310**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A4I010168-006 Work Order #...: GPDD31AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	310	ug/L
Trichloroethene	**1300**	**310**	**ug/L**
1,2,3-Trichloropropane	ND	310	ug/L
Vinyl chloride	ND	120	ug/L
Xylenes (total)	ND	310	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP Z 804

GC/MS Volatiles

Lot-Sample #...: A4I010168-007 **Work Order #...:** GPDD51AA **Matrix.....:** WG
Date Sampled...: 08/31/04 12:25 **Date Received..:** 09/01/04
Prep Date.....: 09/13/04 **Analysis Date..:** 09/13/04
Prep Batch #...: 4258392
Dilution Factor: 62.5 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	310	ug/L
Bromodichloromethane	ND	310	ug/L
Bromoform	ND	310	ug/L
Bromomethane	ND	310	ug/L
Carbon tetrachloride	ND	310	ug/L
Chlorobenzene	ND	310	ug/L
Chlorodibromomethane	ND	310	ug/L
Chloroethane	ND	310	ug/L
Chloroform	ND	310	ug/L
Chloromethane	ND	310	ug/L
Dibromomethane	ND	310	ug/L
1,2-Dichlorobenzene	ND	310	ug/L
1,3-Dichlorobenzene	ND	310	ug/L
1,4-Dichlorobenzene	ND	310	ug/L
Dichlorodifluoromethane	ND	310	ug/L
1,1-Dichloroethane	ND	310	ug/L
1,2-Dichloroethane	ND	310	ug/L
1,1-Dichloroethene	ND	310	ug/L
cis-1,2-Dichloroethene	ND	310	ug/L
trans-1,2-Dichloroethene	ND	310	ug/L
1,2-Dichloropropane	ND	310	ug/L
1,3-Dichloropropane	ND	310	ug/L
2,2-Dichloropropane	ND	310	ug/L
1,1-Dichloropropene	ND	310	ug/L
1,4-Dioxane	ND	16000	ug/L
Ethylbenzene	ND	310	ug/L
Trichlorofluoromethane	ND	310	ug/L
Hexachlorobutadiene	ND	310	ug/L
Isopropylbenzene	ND	310	ug/L
Methylene chloride	ND	310	ug/L
Naphthalene	ND	310	ug/L
Styrene	ND	310	ug/L
1,1,1,2-Tetrachloroethane	ND	310	ug/L
1,1,2,2-Tetrachloroethane	ND	310	ug/L
Tetrachloroethene	ND	310	ug/L
Toluene	ND	310	ug/L
1,2,4-Trichloro-benzene	ND	310	ug/L
1,1,1-Trichloroethane	**340**	**310**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP Z 804

GC/MS Volatiles

Lot-Sample #...: A4I010168-007 **Work Order #...:** GPDD51AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	310	ug/L
Trichloroethene	**1200**	**310**	**ug/L**
1,2,3-Trichloropropane	ND	310	ug/L
Vinyl chloride	ND	120	ug/L
Xylenes (total)	ND	310	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MANSON BRANCH 2

GC/MS Volatiles

Lot-Sample #...: A4I010168-008 **Work Order #...:** GPDD81AA **Matrix.....:** WG
Date Sampled...: 08/31/04 12:40 **Date Received..:** 09/01/04
Prep Date.....: 09/14/04 **Analysis Date..:** 09/14/04
Prep Batch #...: 4259463
Dilution Factor: 125 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	620	ug/L
Bromodichloromethane	ND	620	ug/L
Bromoform	ND	620	ug/L
Bromomethane	ND	620	ug/L
Carbon tetrachloride	ND	620	ug/L
Chlorobenzene	ND	620	ug/L
Chlorodibromomethane	ND	620	ug/L
Chloroethane	ND	620	ug/L
Chloroform	ND	620	ug/L
Chloromethane	ND	620	ug/L
Dibromomethane	ND	620	ug/L
1,2-Dichlorobenzene	ND	620	ug/L
1,3-Dichlorobenzene	ND	620	ug/L
1,4-Dichlorobenzene	ND	620	ug/L
Dichlorodifluoromethane	ND	620	ug/L
1,1-Dichloroethane	ND	620	ug/L
1,2-Dichloroethane	ND	620	ug/L
1,1-Dichloroethene	**1000**	**620**	**ug/L**
cis-1,2-Dichloroethene	ND	620	ug/L
trans-1,2-Dichloroethene	ND	620	ug/L
1,2-Dichloropropane	ND	620	ug/L
1,3-Dichloropropane	ND	620	ug/L
2,2-Dichloropropane	ND	620	ug/L
1,1-Dichloropropene	ND	620	ug/L
1,4-Dioxane	ND	31000	ug/L
Ethylbenzene	ND	620	ug/L
Trichlorofluoromethane	ND	620	ug/L
Hexachlorobutadiene	ND	620	ug/L
Isopropylbenzene	ND	620	ug/L
Methylene chloride	ND	620	ug/L
Naphthalene	ND	620	ug/L
Styrene	ND	620	ug/L
1,1,1,2-Tetrachloroethane	ND	620	ug/L
1,1,2,2-Tetrachloroethane	ND	620	ug/L
Tetrachloroethene	ND	620	ug/L
Toluene	ND	620	ug/L
1,2,4-Trichloro-benzene	ND	620	ug/L
1,1,1-Trichloroethane	**1900**	**620**	**ug/L**

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MANSON BRANCH 2

GC/MS Volatiles

Lot-Sample #...: A4I010168-008 Work Order #...: GPDD81AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	620	ug/L
Trichloroethene	**4400**	**620**	**ug/L**
1,2,3-Trichloropropane	ND	620	ug/L
Vinyl chloride	ND	250	ug/L
Xylenes (total)	ND	620	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP A

GC/MS Volatiles

Lot-Sample #...: A4I010168-009 **Work Order #...:** GPDEG1AA **Matrix.....:** WG
Date Sampled...: 08/31/04 13:05 **Date Received..:** 09/01/04
Prep Date.....: 09/13/04 **Analysis Date..:** 09/13/04
Prep Batch #...: 4258392
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP A

GC/MS Volatiles

Lot-Sample #...: A4I010168-009 **Work Order #...:** GPDEG1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4I010168-010 **Work Order #...:** GPDEK1AA **Matrix.....:** WG
Date Sampled...: 08/31/04 13:25 **Date Received..:** 09/01/04
Prep Date.....: 09/13/04 **Analysis Date..:** 09/13/04
Prep Batch #...: 4258392
Dilution Factor: 6.67 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	33	ug/L
Bromodichloromethane	ND	33	ug/L
Bromoform	ND	33	ug/L
Bromomethane	ND	33	ug/L
Carbon tetrachloride	ND	33	ug/L
Chlorobenzene	ND	33	ug/L
Chlorodibromomethane	ND	33	ug/L
Chloroethane	ND	33	ug/L
Chloroform	ND	33	ug/L
Chloromethane	ND	33	ug/L
Dibromomethane	ND	33	ug/L
1,2-Dichlorobenzene	ND	33	ug/L
1,3-Dichlorobenzene	ND	33	ug/L
1,4-Dichlorobenzene	ND	33	ug/L
Dichlorodifluoromethane	ND	33	ug/L
1,1-Dichloroethane	ND	33	ug/L
1,2-Dichloroethane	ND	33	ug/L
1,1-Dichloroethene	ND	33	ug/L
cis-1,2-Dichloroethene	**190**	**33**	**ug/L**
trans-1,2-Dichloroethene	ND	33	ug/L
1,2-Dichloropropane	ND	33	ug/L
1,3-Dichloropropane	ND	33	ug/L
2,2-Dichloropropane	ND	33	ug/L
1,1-Dichloropropene	ND	33	ug/L
1,4-Dioxane	ND	1700	ug/L
Ethylbenzene	ND	33	ug/L
Trichlorofluoromethane	ND	33	ug/L
Hexachlorobutadiene	ND	33	ug/L
Isopropylbenzene	ND	33	ug/L
Methylene chloride	ND	33	ug/L
Naphthalene	ND	33	ug/L
Styrene	ND	33	ug/L
1,1,1,2-Tetrachloroethane	ND	33	ug/L
1,1,2,2-Tetrachloroethane	ND	33	ug/L
Tetrachloroethene	ND	33	ug/L
Toluene	ND	33	ug/L
1,2,4-Trichloro-benzene	ND	33	ug/L
1,1,1-Trichloroethane	ND	33	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4I010168-010 Work Order #...: GPDEK1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	33	ug/L
Trichloroethene	ND	33	ug/L
1,2,3-Trichloropropane	ND	33	ug/L
Vinyl chloride	ND	13	ug/L
Xylenes (total)	ND	33	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A4I010168-011 **Work Order #...:** GPDEL1AA **Matrix.....:** WG
Date Sampled...: 08/31/04 13:50 **Date Received..:** 09/01/04
Prep Date.....: 09/13/04 **Analysis Date..:** 09/13/04
Prep Batch #...: 4258392
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A4I010168-011 Work Order #...: GPDEL1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	110	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A4I010168-012 **Work Order #...:** GPDEM1AA **Matrix.....:** WG
Date Sampled...: 08/31/04 14:25 **Date Received..:** 09/01/04
Prep Date.....: 09/14/04 **Analysis Date..:** 09/14/04
Prep Batch #...: 4259463
Dilution Factor: 4 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	20	ug/L
Bromodichloromethane	ND	20	ug/L
Bromoform	ND	20	ug/L
Bromomethane	ND	20	ug/L
Carbon tetrachloride	ND	20	ug/L
Chlorobenzene	ND	20	ug/L
Chlorodibromomethane	ND	20	ug/L
Chloroethane	ND	20	ug/L
Chloroform	ND	20	ug/L
Chloromethane	ND	20	ug/L
Dibromomethane	ND	20	ug/L
1,2-Dichlorobenzene	ND	20	ug/L
1,3-Dichlorobenzene	ND	20	ug/L
1,4-Dichlorobenzene	ND	20	ug/L
Dichlorodifluoromethane	ND	20	ug/L
1,1-Dichloroethane	ND	20	ug/L
1,2-Dichloroethane	ND	20	ug/L
1,1-Dichloroethene	ND	20	ug/L
cis-1,2-Dichloroethene	**85**	**20**	**ug/L**
trans-1,2-Dichloroethene	ND	20	ug/L
1,2-Dichloropropane	ND	20	ug/L
1,3-Dichloropropane	ND	20	ug/L
2,2-Dichloropropane	ND	20	ug/L
1,1-Dichloropropene	ND	20	ug/L
1,4-Dioxane	ND	1000	ug/L
Ethylbenzene	ND	20	ug/L
Trichlorofluoromethane	ND	20	ug/L
Hexachlorobutadiene	ND	20	ug/L
Isopropylbenzene	ND	20	ug/L
Methylene chloride	ND	20	ug/L
Naphthalene	ND	20	ug/L
Styrene	ND	20	ug/L
1,1,1,2-Tetrachloroethane	ND	20	ug/L
1,1,2,2-Tetrachloroethane	ND	20	ug/L
Tetrachloroethene	ND	20	ug/L
Toluene	ND	20	ug/L
1,2,4-Trichloro-benzene	ND	20	ug/L
1,1,1-Trichloroethane	ND	20	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A4I010168-012 Work Order #...: GPDEM1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	20	ug/L
Trichloroethene	ND	20	ug/L
1,2,3-Trichloropropane	ND	20	ug/L
Vinyl chloride	ND	8.0	ug/L
Xylenes (total)	ND	20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	114	(73 - 122)
1,2-Dichloroethane-d4	112	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4I010168-013 **Work Order #...:** GPDEP1AA **Matrix.....:** WQ
Date Sampled...: 08/31/04 **Date Received..:** 09/01/04
Prep Date.....: 09/13/04 **Analysis Date..:** 09/13/04
Prep Batch #...: 4258392
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	**5.0**	**5.0**	**ug/L**
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4I010168-013 **Work Order #...:** GPDEP1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP1MH1AA **Matrix.....:** WATER
MB Lot-Sample #: A4I100000-358

Prep Date.....: 09/10/04
Analysis Date..: 09/10/04 **Prep Batch #...:** 4254358
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP1MH1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP6A01AA **Matrix.....:** WATER
MB Lot-Sample #: A4I140000-251

Prep Date.....: 09/14/04
Analysis Date..: 09/14/04 **Prep Batch #...:** 4258251
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP6A01AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Naphthalene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(73 - 122)
1,2-Dichloroethane-d4	82	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP7DL1AA **Matrix.....:** WATER
MB Lot-Sample #: A4I140000-392

Prep Date.....: 09/13/04
Analysis Date..: 09/13/04 **Prep Batch #...:** 4258392
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP7DL1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	104	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP92H1AA **Matrix.....:** WATER
MB Lot-Sample #: A4I150000-463

Prep Date.....: 09/14/04
Analysis Date..: 09/14/04 **Prep Batch #...:** 4259463
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP92H1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP1MH1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4I100000-358 GP1MH1AD-LCSD
Prep Date.....: 09/10/04 **Analysis Date..:** 09/10/04
Prep Batch #...: 4254358
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**85**	**(63 - 130)**			**SW846 8260B**
	85	**(63 - 130)**	**0.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**90**	**(75 - 122)**			**SW846 8260B**
	91	**(75 - 122)**	**1.6**	**(0-20)**	**SW846 8260B**
Benzene	**89**	**(80 - 116)**			**SW846 8260B**
	90	**(80 - 116)**	**0.83**	**(0-20)**	**SW846 8260B**
Toluene	**97**	**(74 - 119)**			**SW846 8260B**
	100	**(74 - 119)**	**3.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**93**	**(76 - 117)**			**SW846 8260B**
	95	**(76 - 117)**	**2.4**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
	100	(61 - 128)
Toluene-d8	105	(76 - 110)
	106	(76 - 110)
4-Bromofluorobenzene	107	(74 - 116)
	109	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP6A01AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4I140000-251 GP6A01AD-LCSD
Prep Date.....: 09/14/04 **Analysis Date..:** 09/14/04
Prep Batch #...: 4258251
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Trichloroethene	**108**	**(75 - 122)**			**SW846 8260B**
	103	**(75 - 122)**	**4.4**	**(0-20)**	**SW846 8260B**
Benzene	**110**	**(80 - 116)**			**SW846 8260B**
	108	**(80 - 116)**	**2.1**	**(0-20)**	**SW846 8260B**
Toluene	**111**	**(74 - 119)**			**SW846 8260B**
	108	**(74 - 119)**	**3.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**109**	**(76 - 117)**			**SW846 8260B**
	106	**(76 - 117)**	**3.0**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**113**	**(63 - 130)**			**SW846 8260B**
	109	**(63 - 130)**	**3.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(73 - 122)
	81	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
	85	(61 - 128)
Toluene-d8	85	(76 - 110)
	86	(76 - 110)
4-Bromofluorobenzene	80	(74 - 116)
	81	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP7DL1AC **Matrix.....:** WATER
LCS Lot-Sample#: A4I140000-392
Prep Date.....: 09/13/04 **Analysis Date..:** 09/13/04
Prep Batch #...: 4258392
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**85**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**101**	**(75 - 122)**	**SW846 8260B**
Benzene	**99**	**(80 - 116)**	**SW846 8260B**
Toluene	**94**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	109	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	109	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GP92H1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4I150000-463 GP92H1AD-LCSD
Prep Date.....: 09/14/04 **Analysis Date..:** 09/14/04
Prep Batch #...: 4259463
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**89**	**(63 - 130)**			**SW846 8260B**
	86	**(63 - 130)**	**2.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(75 - 122)**			**SW846 8260B**
	95	**(75 - 122)**	**4.3**	**(0-20)**	**SW846 8260B**
Benzene	**99**	**(80 - 116)**			**SW846 8260B**
	97	**(80 - 116)**	**1.2**	**(0-20)**	**SW846 8260B**
Toluene	**93**	**(74 - 119)**			**SW846 8260B**
	92	**(74 - 119)**	**0.88**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**0.92**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
	101	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
	104	(61 - 128)
Toluene-d8	97	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	105	(74 - 116)
	102	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GPDGW1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A4I010177-001 GPDGW1AD-MSD
Date Sampled...: 08/30/04 12:30 **Date Received..:** 09/01/04
Prep Date.....: 09/10/04 **Analysis Date..:** 09/10/04
Prep Batch #...: 4254358
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Trichloroethene	**95**	**(62 - 130)**			**SW846 8260B**
	95	**(62 - 130)**	**0.62**	**(0-20)**	**SW846 8260B**
Benzene	**99**	**(78 - 118)**			**SW846 8260B**
	95	**(78 - 118)**	**4.0**	**(0-20)**	**SW846 8260B**
Toluene	**104**	**(70 - 119)**			**SW846 8260B**
	107	**(70 - 119)**	**2.7**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**			**SW846 8260B**
	101	**(76 - 117)**	**0.72**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**101**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**3.4**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	102	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
	101	(61 - 128)
Toluene-d8	106	(76 - 110)
	110	(76 - 110)
4-Bromofluorobenzene	110	(74 - 116)
	115	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GPWHE1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A4I090234-017 GPWHE1AD-MSD
Date Sampled...: 09/07/04 15:20 **Date Received..:** 09/09/04
Prep Date.....: 09/14/04 **Analysis Date..:** 09/14/04
Prep Batch #...: 4258251
Dilution Factor: 100

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**97**	**(62 - 130)**			**SW846 8260B**
	104	**(62 - 130)**	**6.2**	**(0-20)**	**SW846 8260B**
Trichloroethene	**92**	**(62 - 130)**			**SW846 8260B**
	100	**(62 - 130)**	**6.6**	**(0-20)**	**SW846 8260B**
Benzene	**99**	**(78 - 118)**			**SW846 8260B**
	106	**(78 - 118)**	**6.4**	**(0-20)**	**SW846 8260B**
Toluene	**97**	**(70 - 119)**			**SW846 8260B**
	104	**(70 - 119)**	**6.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**94**	**(76 - 117)**			**SW846 8260B**
	99	**(76 - 117)**	**5.6**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(73 - 122)
	83	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
	88	(61 - 128)
Toluene-d8	84	(76 - 110)
	88	(76 - 110)
4-Bromofluorobenzene	79	(74 - 116)
	83	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GPDD31AC-MS **Matrix.....:** WG
MS Lot-Sample #: A4I010168-006 GPDD31AD-MSD
Date Sampled...: 08/31/04 12:25 **Date Received..:** 09/01/04
Prep Date.....: 09/13/04 **Analysis Date..:** 09/13/04
Prep Batch #...: 4258392
Dilution Factor: 62.5

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**84**	**(62 - 130)**			**SW846 8260B**
	78	**(62 - 130)**	**5.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**107**	**(62 - 130)**			**SW846 8260B**
	96	**(62 - 130)**	**3.6**	**(0-20)**	**SW846 8260B**
Benzene	**98**	**(78 - 118)**			**SW846 8260B**
	97	**(78 - 118)**	**1.2**	**(0-20)**	**SW846 8260B**
Toluene	**94**	**(70 - 119)**			**SW846 8260B**
	91	**(70 - 119)**	**3.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	94	**(76 - 117)**	**3.5**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	102	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
	109	(61 - 128)
Toluene-d8	97	(76 - 110)
	94	(76 - 110)
4-Bromofluorobenzene	109	(74 - 116)
	106	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4I010168 **Work Order #...:** GPWGA1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A4I090234-003 GPWGA1AD-MSD
Date Sampled...: 09/07/04 15:00 **Date Received..:** 09/09/04
Prep Date.....: 09/15/04 **Analysis Date..:** 09/15/04
Prep Batch #...: 4259463
Dilution Factor: 66.67

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**93**	**(62 - 130)**			**SW846 8260B**
	93	**(62 - 130)**	**0.17**	**(0-20)**	**SW846 8260B**
Trichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	98	**(62 - 130)**	**0.19**	**(0-20)**	**SW846 8260B**
Benzene	**101**	**(78 - 118)**			**SW846 8260B**
	101	**(78 - 118)**	**0.16**	**(0-20)**	**SW846 8260B**
Toluene	**91**	**(70 - 119)**			**SW846 8260B**
	91	**(70 - 119)**	**0.08**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**0.55**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	115	(73 - 122)
	112	(73 - 122)
1,2-Dichloroethane-d4	117	(61 - 128)
	117	(61 - 128)
Toluene-d8	107	(76 - 110)
	107	(76 - 110)
4-Bromofluorobenzene	117 *	(74 - 116)
	117 *	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client: MACTEC ENGINEERING AND CONSULTING	Project Manager: DAVE ALCOTT	Date: 8/31/04	Chain of Custody Number: 124331
Address: 3200 TOWN POINT DR NW	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 1 of 2
City: KENNESAW; State: GA; Zip Code: 30144	Site Contact:	Lab Contact:	
Project Name and Location (State): TK - LOUISVILLE (GA)	Carrier/Waybill Number: FED-EX # 846174688662		
Contract/Purchase Order/Quote No.: R. QUINN - MACTEC			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs - 8260B*	Special Instructions/ Conditions of Receipt
SEEP B	8/30/04	1115		X						X			3	* LIST OF SITE
SEEP 2	8/30/04	1130		X						X			3	SPECIFIC VOCS
SEEP D	8/31/04	1115		X						X			3	IS ATTACHED TO
SEEP H	8/31/04	1140		X						X			3	CHAIN OF CUSTODY
SEEP G	8/31/04	1205		X						X			3	
SEEP C	8/31/04	1225		X						X			3	
SEEP 'Z 804	8/31/04	1225		X						X			3	
MAUXAU BRANCH 2	8/31/04	1240		X						X			3	
SEEP A	8/31/04	1305		X						X			3	
SEEP J	8/31/04	1325		X						X			3	
SEEP L	8/31/04	1350		X						X			3	
SEEP K	8/31/04	1425		X						X			3	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other NORMAL TAT

QC Requirements (Specify):

1. Relinquished By	Date: 8/31/04	Time: 1800	1. Received By	Date: 9-1-04	Time: 9:45
2. Relinquished By	Date:	Time:	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date:	Time:

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

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STL-4124 (0901)

Client: MACTEC ENGINEERING AND CONSULTING	Project Manager: DAVE ALCOTT	Date: 8/31/01	Chain of Custody Number: 124330
Address: 3200 TOWN POINT DR NW	Telephone Number (Area Code)/Fax Number: (770) 421-3400 / (770) 421-3486	Lab Number:	Page 2 of 2
City: KENNESAW / State: GA / Zip Code: 30144	Site Contact:	Lab Contact:	
Project Name and Location (State): TVL LOUISVILLE (GA)	Carrier/Waybill Number: FED-EX # 846174686622		
Contract/Purchase Order/Quote No.: A QUINN - MACTEC			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 1 - VOCs - 8260B
TRIP BLANK	8/31/01	—		X									
TEMP. BLANK	8/31/01	—											

Special Instructions/ Conditions of Receipt: * LIST OF SITE SPECIFIC VOCS IS ATTACHED TO CHAIN OF CUSTODY

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other NORMAL TAT

QC Requirements (Specify):

1. Relinquished By	Date: 8/31/01	Time: 1600	1. Received By	Date: 9-1-01	Time: 9:45
2. Relinquished By	Date:	Time:	2. Received By	Date:	Time:
3. Relinquished By	Date:	Time:	3. Received By	Date:	Time:

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

SAMPLE SUMMARY

A4K180264

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GW97A	001	SEEP B	11/17/04	08:45
GW97D	002	SEEP #2	11/17/04	09:05
GW97F	003	SEEP I	11/17/04	09:25
GW97G	004	SEEP D	11/17/04	10:25
GW97H	005	SEEP H	11/17/04	10:50
GW97J	006	SEEP G	11/17/04	11:05
GW97K	007	SEEP C	11/17/04	11:25
GW97L	008	SEEP21104	11/17/04	
GW97Q	009	MANSOV BRANCH #2	11/17/04	11:40
GW97W	010	SEEP L	11/17/04	12:00
GW97X	011	SEEP K	11/17/04	12:15
GW971	012	SEEP J	11/17/04	14:45
GW973	013	TRIP BLANK	11/17/04	12:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 1200002050.403

TK-LOUISVILLE (GA)

Lot #: A4K180264

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

December 11, 2004

CASE NARRATIVE

A4K180264

The following report contains the analytical results for twelve water samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the TK-Louisville (GA) Site, project number 1200002050.403. The samples were received November 18, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on December 02, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.2°C.

See STL's Cooler Receipt Form for additional information.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL), the analytes were greater than 10 times the blank level for organics or 20 times for inorganics, or the associated sample(s) must be ND except for the common laboratory contaminants indicated below.

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

** for analyses run on TJA Trace ICP only*

The listed volatile and semivolatile compounds may be present in concentrations up to 5 times the reporting limits. Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria does not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike for inorganics.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample are spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If the surrogate recoveries are outside criteria for environmental or MS/MSD samples, the batch is acceptable if the Method Blank, LCS, and LCSD surrogate recoveries are within acceptance criteria. The only exception is if the surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank and the associated sample(s) are ND, the batch is acceptable. If the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide/PCB and PAH methods, the surrogate criteria is that one of two surrogate compounds meet acceptance criteria.

EXECUTIVE SUMMARY - Detection Highlights

A4K180264

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SEEP B 11/17/04 08:45 001				
cis-1,2-Dichloroethene	16	8.4	ug/L	SW846 8260B
1,1,1-Trichloroethane	10	8.4	ug/L	SW846 8260B
Trichloroethene	41	8.4	ug/L	SW846 8260B
SEEP H 11/17/04 10:50 005				
cis-1,2-Dichloroethene	27	5.0	ug/L	SW846 8260B
Trichloroethene	7.1	5.0	ug/L	SW846 8260B
SEEP C 11/17/04 11:25 007				
1,1-Dichloroethene	240	190	ug/L	SW846 8260B
1,1,1-Trichloroethane	380	190	ug/L	SW846 8260B
Trichloroethene	1000	190	ug/L	SW846 8260B
SEEP21104 11/17/04 008				
1,1,1-Trichloroethane	220	190	ug/L	SW846 8260B
Trichloroethene	940	190	ug/L	SW846 8260B
MANSOV BRANCH #2 11/17/04 11:40 009				
1,1-Dichloroethene	210	190	ug/L	SW846 8260B
1,1,1-Trichloroethane	320	190	ug/L	SW846 8260B
Trichloroethene	930	190	ug/L	SW846 8260B
SEEP J 11/17/04 14:45 012				
cis-1,2-Dichloroethene	110	25	ug/L	SW846 8260B
Vinyl chloride	11	10	ug/L	SW846 8260B
TRIP BLANK 11/17/04 12:00 013				
Methylene chloride	5.5	5.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A4K130264

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP B

GC/MS Volatiles

Lot-Sample #...: A4K180264-001 Work Order #...: GW97A1AA Matrix.....: WG
Date Sampled...: 11/17/04 08:45 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 1.67 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	8.4	ug/L
Bromodichloromethane	ND	8.4	ug/L
Bromoform	ND	8.4	ug/L
Bromomethane	ND	8.4	ug/L
Carbon tetrachloride	ND	8.4	ug/L
Chlorobenzene	ND	8.4	ug/L
Chlorodibromomethane	ND	8.4	ug/L
Chloroethane	ND	8.4	ug/L
Chloroform	ND	8.4	ug/L
Chloromethane	ND	8.4	ug/L
Dibromomethane	ND	8.4	ug/L
1,2-Dichlorobenzene	ND	8.4	ug/L
1,3-Dichlorobenzene	ND	8.4	ug/L
1,4-Dichlorobenzene	ND	8.4	ug/L
Dichlorodifluoromethane	ND	8.4	ug/L
1,1-Dichloroethane	ND	8.4	ug/L
1,2-Dichloroethane	ND	8.4	ug/L
cis-1,2-Dichloroethene	**16**	**8.4**	**ug/L**
trans-1,2-Dichloroethene	ND	8.4	ug/L
1,1-Dichloroethene	ND	8.4	ug/L
1,2-Dichloropropane	ND	8.4	ug/L
1,3-Dichloropropane	ND	8.4	ug/L
2,2-Dichloropropane	ND	8.4	ug/L
1,1-Dichloropropene	ND	8.4	ug/L
1,4-Dioxane	ND	420	ug/L
Ethylbenzene	ND	8.4	ug/L
Hexachlorobutadiene	ND	8.4	ug/L
Isopropylbenzene	ND	8.4	ug/L
Methylene chloride	ND	8.4	ug/L
Naphthalene	ND	8.4	ug/L
Styrene	ND	8.4	ug/L
1,1,1,2-Tetrachloroethane	ND	8.4	ug/L
1,1,2,2-Tetrachloroethane	ND	8.4	ug/L
Tetrachloroethene	ND	8.4	ug/L
Toluene	ND	8.4	ug/L
1,2,4-Trichloro-benzene	ND	8.4	ug/L
1,1,1-Trichloroethane	**10**	**8.4**	**ug/L**
1,1,2-Trichloroethane	ND	8.4	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP B

GC/MS Volatiles

Lot-Sample #...: A4K180264-001 Work Order #...: GW97A1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**41**	**8.4**	**ug/L**
Trichlorofluoromethane	ND	8.4	ug/L
1,2,3-Trichloropropane	ND	8.4	ug/L
Vinyl chloride	ND	3.3	ug/L
Xylenes (total)	ND	8.4	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A4K180264-002 Work Order #...: GW97D1AA Matrix.....: WG
Date Sampled...: 11/17/04 09:05 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A4K180264-002 Work Order #...: GW97D1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A4K180264-003 Work Order #...: GW97F1AA Matrix.....: WG
Date Sampled...: 11/17/04 09:25 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A4K180264-003 Work Order #...: GW97F1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A4K180264-004 Work Order #...: GW97G1AA Matrix.....: WG
Date Sampled...: 11/17/04 10:25 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A4K180264-004 Work Order #...: GW97G1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A4K180264-005 Work Order #...: GW97H1AA Matrix.....: WG
Date Sampled...: 11/17/04 10:50 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	**27**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A4K180264-005 Work Order #...: GW97H1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**7.1**	**5.0**	**ug/L**
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A4K180264-006 Work Order #...: GW97J1AA Matrix.....: WG
Date Sampled...: 11/17/04 11:05 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A4K180264-006 Work Order #...: GW97J1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A4K180264-007 **Work Order #...:** GW97K1AA **Matrix.....:** WG
Date Sampled...: 11/17/04 11:25 **Date Received..:** 11/18/04
Prep Date.....: 11/29/04 **Analysis Date..:** 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 38.46 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	190	ug/L
Bromodichloromethane	ND	190	ug/L
Bromoform	ND	190	ug/L
Bromomethane	ND	190	ug/L
Carbon tetrachloride	ND	190	ug/L
Chlorobenzene	ND	190	ug/L
Chlorodibromomethane	ND	190	ug/L
Chloroethane	ND	190	ug/L
Chloroform	ND	190	ug/L
Chloromethane	ND	190	ug/L
Dibromomethane	ND	190	ug/L
1,2-Dichlorobenzene	ND	190	ug/L
1,3-Dichlorobenzene	ND	190	ug/L
1,4-Dichlorobenzene	ND	190	ug/L
Dichlorodifluoromethane	ND	190	ug/L
1,1-Dichloroethane	ND	190	ug/L
1,2-Dichloroethane	ND	190	ug/L
cis-1,2-Dichloroethene	ND	190	ug/L
trans-1,2-Dichloroethene	ND	190	ug/L
1,1-Dichloroethene	**240**	**190**	**ug/L**
1,2-Dichloropropane	ND	190	ug/L
1,3-Dichloropropane	ND	190	ug/L
2,2-Dichloropropane	ND	190	ug/L
1,1-Dichloropropene	ND	190	ug/L
1,4-Dioxane	ND	9600	ug/L
Ethylbenzene	ND	190	ug/L
Hexachlorobutadiene	ND	190	ug/L
Isopropylbenzene	ND	190	ug/L
Methylene chloride	ND	190	ug/L
Naphthalene	ND	190	ug/L
Styrene	ND	190	ug/L
1,1,1,2-Tetrachloroethane	ND	190	ug/L
1,1,2,2-Tetrachloroethane	ND	190	ug/L
Tetrachloroethene	ND	190	ug/L
Toluene	ND	190	ug/L
1,2,4-Trichloro-benzene	ND	190	ug/L
1,1,1-Trichloroethane	**380**	**190**	**ug/L**
1,1,2-Trichloroethane	ND	190	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A4K180264-007 Work Order #...: GW97K1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**1000**	**190**	**ug/L**
Trichlorofluoromethane	ND	190	ug/L
1,2,3-Trichloropropane	ND	190	ug/L
Vinyl chloride	ND	77	ug/L
Xylenes (total)	ND	190	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP21104

GC/MS Volatiles

Lot-Sample #...: A4K180264-008 Work Order #...: GW97L1AA Matrix.....: WG
Date Sampled...: 11/17/04 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 38.46 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	190	ug/L
Bromodichloromethane	ND	190	ug/L
Bromoform	ND	190	ug/L
Bromomethane	ND	190	ug/L
Carbon tetrachloride	ND	190	ug/L
Chlorobenzene	ND	190	ug/L
Chlorodibromomethane	ND	190	ug/L
Chloroethane	ND	190	ug/L
Chloroform	ND	190	ug/L
Chloromethane	ND	190	ug/L
Dibromomethane	ND	190	ug/L
1,2-Dichlorobenzene	ND	190	ug/L
1,3-Dichlorobenzene	ND	190	ug/L
1,4-Dichlorobenzene	ND	190	ug/L
Dichlorodifluoromethane	ND	190	ug/L
1,1-Dichloroethane	ND	190	ug/L
1,2-Dichloroethane	ND	190	ug/L
cis-1,2-Dichloroethene	ND	190	ug/L
trans-1,2-Dichloroethene	ND	190	ug/L
1,1-Dichloroethene	ND	190	ug/L
1,2-Dichloropropane	ND	190	ug/L
1,3-Dichloropropane	ND	190	ug/L
2,2-Dichloropropane	ND	190	ug/L
1,1-Dichloropropene	ND	190	ug/L
1,4-Dioxane	ND	9600	ug/L
Ethylbenzene	ND	190	ug/L
Hexachlorobutadiene	ND	190	ug/L
Isopropylbenzene	ND	190	ug/L
Methylene chloride	ND	190	ug/L
Naphthalene	ND	190	ug/L
Styrene	ND	190	ug/L
1,1,1,2-Tetrachloroethane	ND	190	ug/L
1,1,2,2-Tetrachloroethane	ND	190	ug/L
Tetrachloroethene	ND	190	ug/L
Toluene	ND	190	ug/L
1,2,4-Trichloro-benzene	ND	190	ug/L
1,1,1-Trichloroethane	**220**	**190**	**ug/L**
1,1,2-Trichloroethane	ND	190	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP21104

GC/MS Volatiles

Lot-Sample #...: A4K180264-008 Work Order #...: GW97L1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**940**	**190**	**ug/L**
Trichlorofluoromethane	ND	190	ug/L
1,2,3-Trichloropropane	ND	190	ug/L
Vinyl chloride	ND	77	ug/L
Xylenes (total)	ND	190	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MANSOV BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A4K180264-009 Work Order #...: GW97Q1AA Matrix.....: WG
Date Sampled...: 11/17/04 11:40 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 38.46 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	190	ug/L
Bromodichloromethane	ND	190	ug/L
Bromoform	ND	190	ug/L
Bromomethane	ND	190	ug/L
Carbon tetrachloride	ND	190	ug/L
Chlorobenzene	ND	190	ug/L
Chlorodibromomethane	ND	190	ug/L
Chloroethane	ND	190	ug/L
Chloroform	ND	190	ug/L
Chloromethane	ND	190	ug/L
Dibromomethane	ND	190	ug/L
1,2-Dichlorobenzene	ND	190	ug/L
1,3-Dichlorobenzene	ND	190	ug/L
1,4-Dichlorobenzene	ND	190	ug/L
Dichlorodifluoromethane	ND	190	ug/L
1,1-Dichloroethane	ND	190	ug/L
1,2-Dichloroethane	ND	190	ug/L
cis-1,2-Dichloroethene	ND	190	ug/L
trans-1,2-Dichloroethene	ND	190	ug/L
1,1-Dichloroethene	**210**	**190**	**ug/L**
1,2-Dichloropropane	ND	190	ug/L
1,3-Dichloropropane	ND	190	ug/L
2,2-Dichloropropane	ND	190	ug/L
1,1-Dichloropropene	ND	190	ug/L
1,4-Dioxane	ND	9600	ug/L
Ethylbenzene	ND	190	ug/L
Hexachlorobutadiene	ND	190	ug/L
Isopropylbenzene	ND	190	ug/L
Methylene chloride	ND	190	ug/L
Naphthalene	ND	190	ug/L
Styrene	ND	190	ug/L
1,1,1,2-Tetrachloroethane	ND	190	ug/L
1,1,2,2-Tetrachloroethane	ND	190	ug/L
Tetrachloroethene	ND	190	ug/L
Toluene	ND	190	ug/L
1,2,4-Trichloro-benzene	ND	190	ug/L
1,1,1-Trichloroethane	**320**	**190**	**ug/L**
1,1,2-Trichloroethane	ND	190	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: MANSOV BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A4K180264-009 **Work Order #...:** GW97Q1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	**930**	**190**	**ug/L**
Trichlorofluoromethane	ND	190	ug/L
1,2,3-Trichloropropane	ND	190	ug/L
Vinyl chloride	ND	77	ug/L
Xylenes (total)	ND	190	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A4K180264-010 Work Order #...: GW97W1AA Matrix.....: WG
Date Sampled...: 11/17/04 12:00 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335287
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A4K180264-010 Work Order #...: GW97W1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A4K180264-011 Work Order #...: GW97X1AA Matrix.....: WG
Date Sampled...: 11/17/04 12:15 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335287
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

(Continued on next page)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A4K180264-011 Work Order #...: GW97X1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	107	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4K180264-012 Work Order #...: GW9711AA Matrix.....: WG
Date Sampled...: 11/17/04 14:45 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	25	ug/L
Bromodichloromethane	ND	25	ug/L
Bromoform	ND	25	ug/L
Bromomethane	ND	25	ug/L
Carbon tetrachloride	ND	25	ug/L
Chlorobenzene	ND	25	ug/L
Chlorodibromomethane	ND	25	ug/L
Chloroethane	ND	25	ug/L
Chloroform	ND	25	ug/L
Chloromethane	ND	25	ug/L
Dibromomethane	ND	25	ug/L
1,2-Dichlorobenzene	ND	25	ug/L
1,3-Dichlorobenzene	ND	25	ug/L
1,4-Dichlorobenzene	ND	25	ug/L
Dichlorodifluoromethane	ND	25	ug/L
1,1-Dichloroethane	ND	25	ug/L
1,2-Dichloroethane	ND	25	ug/L
cis-1,2-Dichloroethene	**110**	**25**	**ug/L**
trans-1,2-Dichloroethene	ND	25	ug/L
1,1-Dichloroethene	ND	25	ug/L
1,2-Dichloropropane	ND	25	ug/L
1,3-Dichloropropane	ND	25	ug/L
2,2-Dichloropropane	ND	25	ug/L
1,1-Dichloropropene	ND	25	ug/L
1,4-Dioxane	ND	1200	ug/L
Ethylbenzene	ND	25	ug/L
Hexachlorobutadiene	ND	25	ug/L
Isopropylbenzene	ND	25	ug/L
Methylene chloride	ND	25	ug/L
Naphthalene	ND	25	ug/L
Styrene	ND	25	ug/L
1,1,1,2-Tetrachloroethane	ND	25	ug/L
1,1,2,2-Tetrachloroethane	ND	25	ug/L
Tetrachloroethene	ND	25	ug/L
Toluene	ND	25	ug/L
1,2,4-Trichloro-benzene	ND	25	ug/L
1,1,1-Trichloroethane	ND	25	ug/L
1,1,2-Trichloroethane	ND	25	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A4K180264-012 Work Order #...: GW9711AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	25	ug/L
Trichlorofluoromethane	ND	25	ug/L
1,2,3-Trichloropropane	ND	25	ug/L
Vinyl chloride	**11**	**10**	**ug/L**
Xylenes (total)	ND	25	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4K180264-013 Work Order #...: GW9731AA Matrix.....: WQ
Date Sampled...: 11/17/04 12:00 Date Received..: 11/18/04
Prep Date.....: 11/29/04 Analysis Date..: 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	**5.5**	**5.0**	**ug/L**
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L

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MACTEC ENGINEERING & CONSULTING INC

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A4K180264-013 Work Order #...: GW9731AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

SEVERN STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4K180264 **Work Order #...:** GXX681AA **Matrix.....:** WATER
MB Lot-Sample #: A4K300000-284

Prep Date.....: 11/29/04
Analysis Date..: 11/29/04 **Prep Batch #...:** 4335284
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4K180264 **Work Order #...:** GXX681AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4K180264 Work Order #...: GXX7Q1AA Matrix.....: WATER
MB Lot-Sample #: A4K300000-287

Prep Date.....: 11/29/04
Analysis Date..: 11/29/04 Prep Batch #...: 4335287
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4K180264 Work Order #...: GXX7Q1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4K180264 **Work Order #...:** GXX681AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4K300000-284 GXX681AD-LCSD
Prep Date.....: 11/29/04 **Analysis Date..:** 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**88**	**(80 - 116)**			**SW846 8260B**
	91	**(80 - 116)**	**3.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**1.4**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**90**	**(63 - 130)**			**SW846 8260B**
	99	**(63 - 130)**	**9.6**	**(0-20)**	**SW846 8260B**
Toluene	**99**	**(74 - 119)**			**SW846 8260B**
	99	**(74 - 119)**	**0.30**	**(0-20)**	**SW846 8260B**
Trichloroethene	**88**	**(75 - 122)**			**SW846 8260B**
	96	**(75 - 122)**	**8.5**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
	93	(61 - 128)
Toluene-d8	107	(76 - 110)
	106	(76 - 110)
4-Bromofluorobenzene	106	(74 - 116)
	106	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4K180264 **Work Order #...:** GXX7Q1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A4K300000-287 GXX7Q1AD-LCSD
Prep Date.....: 11/29/04 **Analysis Date..:** 11/29/04
Prep Batch #...: 4335287
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**91**	**(80 - 116)**			**SW846 8260B**
	90	**(80 - 116)**	**0.94**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**0.41**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**98**	**(63 - 130)**			**SW846 8260B**
	91	**(63 - 130)**	**7.5**	**(0-20)**	**SW846 8260B**
Toluene	**100**	**(74 - 119)**			**SW846 8260B**
	98	**(74 - 119)**	**3.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**98**	**(75 - 122)**			**SW846 8260B**
	96	**(75 - 122)**	**2.3**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
	96	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
	90	(61 - 128)
Toluene-d8	106	(76 - 110)
	106	(76 - 110)
4-Bromofluorobenzene	108	(74 - 116)
	105	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4K180264 **Work Order #...:** GXAQM1AD-MS **Matrix.....:** WATER
MS Lot-Sample #: A4K180322-002 GXAQM1AE-MSD
Date Sampled...: 11/17/04 12:15 **Date Received..:** 11/18/04
Prep Date.....: 11/29/04 **Analysis Date..:** 11/29/04
Prep Batch #...: 4335284
Dilution Factor: 1000

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**95**	**(78 - 118)**			**SW846 8260B**
	97	**(78 - 118)**	**2.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**99**	**(76 - 117)**			**SW846 8260B**
	100	**(76 - 117)**	**0.94**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**104**	**(62 - 130)**			**SW846 8260B**
	107	**(62 - 130)**	**2.5**	**(0-20)**	**SW846 8260B**
Toluene	**101**	**(70 - 119)**			**SW846 8260B**
	102	**(70 - 119)**	**1.2**	**(0-20)**	**SW846 8260B**
Trichloroethene	**104**	**(62 - 130)**			**SW846 8260B**
	107	**(62 - 130)**	**2.4**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
	94	(61 - 128)
Toluene-d8	107	(76 - 110)
	105	(76 - 110)
4-Bromofluorobenzene	107	(74 - 116)
	104	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A4K180264 Work Order #...: GXFD01DQ-MS Matrix.....: WATER
MS Lot-Sample #: A4K190290-005 GXFD01DR-MSD
Date Sampled...: 11/17/04 15:10 Date Received..: 11/19/04
Prep Date.....: 11/30/04 Analysis Date..: 11/30/04
Prep Batch #...: 4335287
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**97**	**(78 - 118)**			**SW846 8260B**
	93	**(78 - 118)**	**3.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**0.88**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**107**	**(62 - 130)**			**SW846 8260B**
	100	**(62 - 130)**	**7.1**	**(0-20)**	**SW846 8260B**
Toluene	**103**	**(70 - 119)**			**SW846 8260B**
	98	**(70 - 119)**	**3.5**	**(0-20)**	**SW846 8260B**
Trichloroethene	**101**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**3.4**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
	90	(61 - 128)
Toluene-d8	106	(76 - 110)
	106	(76 - 110)
4-Bromofluorobenzene	103	(74 - 116)
	104	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

44

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MACTEC	DAVE ALCOTT	11/17/04	17167A
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 2
3200 TOWN POINT DR. NW			
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
KENNESAW / GA / 30144	EDEN KLEFNER		
Project Name and Location (State)	**Carrier/Waybill Number**		
TK - LOUISVILLE (GA)	FED-EX # 846201364110		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: VOC (8260B)	Special Instructions/ Conditions of Receipt
SEEP B		0845		X						X			3	* SITE SPECIFIC QCs
SEEP #2		0905		X						X			3	
SEEP I		0925		X						X			3	
SEEP D		1025		X						X			3	
SEEP H		1050		X						X			3	
SEEP G		1105		X						X			3	
SEEP C		1125		X						X			3	
SEEP 21104		0000		X						X			3	
MANSOU BRANCH #2		1140		X						X			3	
SEEP L		1200		X						X			3	
SEEP K		1215		X						X			3	
SEEP J		1445		X						X			3	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STANDARD TAT

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.		11/17/04	1700		11-18-04	10:15
2.						
3.						

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample. PINK - Field Copy

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

45

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
MACTEC	DAVE ALLOTT	11/17/04	171672
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
3200 TOWN POINT DR. NW	(770) 421-3400		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
KENNESAW / GA / 30144	BRENT KEENER	ROGER TOTH	
Project Name and Location (State)	**Carrier/Waybill Number**		
JX - LOUISVILLE (GA)	FED-EX # 846201384110		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOCs (8260)	Special Instructions/ Conditions of Receipt
TRIP BLANK	11/17/04	1200		X						X			3	* SITE SPECIFIC VOCs

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☑ Other STANDARD TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	11/17/04	1700	1. Received By	11-18-04	10:15
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

APPENDIX J

LABORATORY ANALYTICAL RESULTS – SITE-SPECIFIC SOIL TO WATER PARTITION COEFFICIENT (KD) STUDY

SAMPLE SUMMARY

ASD140167

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
G8CT0	001	Kd-1 (2')	04/12/05	16:3
G8CT5	002	Kd-1 (4')	04/12/05	16:4
G8CT6	003	TRIP BLANK	04/12/05	
G8CT7	004	Kd-2 (8')	04/12/05	17:4
G8CT9	005	Kd-3 (4')	04/12/05	18:4
G8CVA	006	Kd-3 (3')	04/12/05	18:4
G8CVC	007	Kd-4 (2')	04/12/05	19:2
G8CVD	008	Kd-4 (11')	04/12/05	19:5
G8CVE	009	Kd-5 (3')	04/12/05	21:0

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 1200002050.403

THERMO KING-LOUISVILLE GA

Lot #: A5D140167

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

April 27, 2005

CASE NARRATIVE

A5D140167

The following report contains the analytical results for eight solid samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc from the Thermo King-Louisville GA Site, project number 1200002050.403. The samples were received April 14, 2005, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on April 21, 2005. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.9°C.

See STL's Cooler Receipt Form for additional information.

GC/MS VOLATILES

Result concentration exceeds the calibration range. Refer to the sample report pages for the affected compound(s) flagged with "E".

Two analyses were used to report samples Kd-4 (11') and Kd-5 (3') due to high analyte concentrations.

One surrogate in the LCSD associated with batch 5108180 was out high. The surrogates in the associated samples were in control and all other QC was in control. Therefore, the high bias for this surrogate was an isolated problem in the LCSD, and the batch was accepted.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A5D140167

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Kd-1 (2') 04/12/05 16:30 001				
1,4-Dioxane	3600000	130000	ug/kg	SW846 8260B
Percent Solids	84.1	10.0	%	MCAWW 160.3 MOD
Kd-1 (4') 04/12/05 16:45 002				
1,4-Dioxane	2800000	130000	ug/kg	SW846 8260B
Percent Solids	85.3	10.0	%	MCAWW 160.3 MOD
Kd-2 (8') 04/12/05 17:45 004				
1,4-Dioxane	270000	12000	ug/kg	SW846 8260B
Naphthalene	310	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	2300	250	ug/kg	SW846 8260B
Trichloroethene	2600	250	ug/kg	SW846 8260B
Percent Solids	84.2	10.0	%	MCAWW 160.3 MOD
Kd-3 (4') 04/12/05 18:45 005				
1,4-Dioxane	220000	13000	ug/kg	SW846 8260B
1,1,1-Trichloroethane	1100	260	ug/kg	SW846 8260B
Trichloroethene	890	260	ug/kg	SW846 8260B
Percent Solids	85.5	10.0	%	MCAWW 160.3 MOD
Kd-3 (3') 04/12/05 18:40 006				
1,4-Dioxane	290000	14000	ug/kg	SW846 8260B
1,1,1-Trichloroethane	320	280	ug/kg	SW846 8260B
Trichloroethene	280	280	ug/kg	SW846 8260B
Percent Solids	84.7	10.0	%	MCAWW 160.3 MOD
Kd-4 (2') 04/12/05 19:20 007				
1,1-Dichloroethene	19	5.5	ug/kg	SW846 8260B
1,4-Dioxane	650	280	ug/kg	SW846 8260B
1,1,1-Trichloroethane	130	5.5	ug/kg	SW846 8260B
1,1,2-Trichloroethane	6.0	5.5	ug/kg	SW846 8260B
Trichloroethene	140	5.5	ug/kg	SW846 8260B
Percent Solids	85.6	10.0	%	MCAWW 160.3 MOD

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EXECUTIVE SUMMARY - Detection Highlights

A5D140167

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Kd-4 (11') 04/12/05 19:50 008				
cis-1,2-Dichloroethene	8.1	4.8	ug/kg	SW846 8260B
1,1-Dichloroethene	50	4.8	ug/kg	SW846 8260B
1,1,1-Trichloroethane	410 E	4.8	ug/kg	SW846 8260B
1,1,2-Trichloroethane	15	4.8	ug/kg	SW846 8260B
Trichloroethene	240 E	4.8	ug/kg	SW846 8260B
Percent Solids	87.1	10.0	%	MCAWW 160.3 MOD
Kd-5 (3') 04/12/05 21:00 009				
1,4-Dioxane	8600	310	ug/kg	SW846 8260B
1,1,1-Trichloroethane	250 E	6.1	ug/kg	SW846 8260B
1,1,2-Trichloroethane	6.4	6.1	ug/kg	SW846 8260B
Trichloroethene	200	6.1	ug/kg	SW846 8260B
1,1-Dichloroethene	51	6.1	ug/kg	SW846 8260B
Percent Solids	79.4	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A5D140167

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SEVERN TRENT STL

GCMS VOLATILE DATA

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-1 (2')

GC/MS Volatiles

Lot-Sample #...: A5D140167-001	**Work Order #...:** G8CT01AC	**Matrix.....:** SO	
Date Sampled...: 04/12/05 16:30	**Date Received..:** 04/14/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/15/05		
Prep Batch #...: 5108186			
Dilution Factor: 8.76	**Initial Wgt/Vol:** 5.71 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 16	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	2600	ug/kg
Bromodichloromethane	ND	2600	ug/kg
Bromoform	ND	2600	ug/kg
Bromomethane	ND	5200	ug/kg
Carbon tetrachloride	ND	2600	ug/kg
Chlorobenzene	ND	2600	ug/kg
Chlorodibromomethane	ND	2600	ug/kg
Chloroethane	ND	5200	ug/kg
Chloroform	ND	2600	ug/kg
Chloromethane	ND	5200	ug/kg
Dibromomethane	ND	2600	ug/kg
1,2-Dichlorobenzene	ND	2600	ug/kg
1,3-Dichlorobenzene	ND	2600	ug/kg
1,4-Dichlorobenzene	ND	2600	ug/kg
Dichlorodifluoromethane	ND	5200	ug/kg
1,1-Dichloroethane	ND	2600	ug/kg
1,2-Dichloroethane	ND	2600	ug/kg
1,1-Dichloroethene	ND	2600	ug/kg
cis-1,2-Dichloroethene	ND	2600	ug/kg
trans-1,2-Dichloroethene	ND	2600	ug/kg
1,2-Dichloropropane	ND	2600	ug/kg
1,3-Dichloropropane	ND	2600	ug/kg
2,2-Dichloropropane	ND	2600	ug/kg
1,1-Dichloropropene	ND	2600	ug/kg
1,4-Dioxane	**3600000**	**130000**	**ug/kg**
Ethylbenzene	ND	2600	ug/kg
Trichlorofluoromethane	ND	5200	ug/kg
Hexachlorobutadiene	ND	2600	ug/kg
Isopropylbenzene	ND	2600	ug/kg
Methylene chloride	ND	2600	ug/kg
Naphthalene	ND	2600	ug/kg
Styrene	ND	2600	ug/kg
1,1,1,2-Tetrachloroethane	ND	2600	ug/kg
1,1,2,2-Tetrachloroethane	ND	2600	ug/kg
Tetrachloroethene	ND	2600	ug/kg
Toluene	ND	2600	ug/kg
1,2,4-Trichloro-benzene	ND	2600	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-1 (2')

GC/MS Volatiles

Lot-Sample #...: A5D140167-001 **Work Order #...:** G8CT01AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	2600	ug/kg
1,1,2-Trichloroethane	ND	2600	ug/kg
Trichloroethene	ND	2600	ug/kg
1,2,3-Trichloropropane	ND	2600	ug/kg
Vinyl chloride	ND	2600	ug/kg
Xylenes (total)	ND	2600	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86 DIL	(59 - 138)
1,2-Dichloroethane-d4	95 DIL	(61 - 130)
Toluene-d8	82 DIL	(60 - 143)
4-Bromofluorobenzene	73 DIL	(47 - 158)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-1 (4')

GC/MS Volatiles

Lot-Sample #...:	A5D140167-002	**Work Order #...:**	G8CT51AC	**Matrix.....:**	SO
Date Sampled...:	04/12/05 16:45	**Date Received..:**	04/14/05		
Prep Date.....:	04/15/05	**Analysis Date..:**	04/15/05		
Prep Batch #...:	5108186				
Dilution Factor:	8.93	**Initial Wgt/Vol:**	5.6 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	15	**Analyst ID.....:**	402279	**Instrument ID..:**	UX8
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	2600	ug/kg
Bromodichloromethane	ND	2600	ug/kg
Bromoform	ND	2600	ug/kg
Bromomethane	ND	5200	ug/kg
Carbon tetrachloride	ND	2600	ug/kg
Chlorobenzene	ND	2600	ug/kg
Chlorodibromomethane	ND	2600	ug/kg
Chloroethane	ND	5200	ug/kg
Chloroform	ND	2600	ug/kg
Chloromethane	ND	5200	ug/kg
Dibromomethane	ND	2600	ug/kg
1,2-Dichlorobenzene	ND	2600	ug/kg
1,3-Dichlorobenzene	ND	2600	ug/kg
1,4-Dichlorobenzene	ND	2600	ug/kg
Dichlorodifluoromethane	ND	5200	ug/kg
1,1-Dichloroethane	ND	2600	ug/kg
1,2-Dichloroethane	ND	2600	ug/kg
1,1-Dichloroethene	ND	2600	ug/kg
cis-1,2-Dichloroethene	ND	2600	ug/kg
trans-1,2-Dichloroethene	ND	2600	ug/kg
1,2-Dichloropropane	ND	2600	ug/kg
1,3-Dichloropropane	ND	2600	ug/kg
2,2-Dichloropropane	ND	2600	ug/kg
1,1-Dichloropropene	ND	2600	ug/kg
1,4-Dioxane	**2800000**	**130000**	**ug/kg**
Ethylbenzene	ND	2600	ug/kg
Trichlorofluoromethane	ND	5200	ug/kg
Hexachlorobutadiene	ND	2600	ug/kg
Isopropylbenzene	ND	2600	ug/kg
Methylene chloride	ND	2600	ug/kg
Naphthalene	ND	2600	ug/kg
Styrene	ND	2600	ug/kg
1,1,1,2-Tetrachloroethane	ND	2600	ug/kg
1,1,2,2-Tetrachloroethane	ND	2600	ug/kg
Tetrachloroethene	ND	2600	ug/kg
Toluene	ND	2600	ug/kg
1,2,4-Trichloro-benzene	ND	2600	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-1 (4')

GC/MS Volatiles

Lot-Sample #...: A5D140167-002 **Work Order #...:** G8CT51AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	2600	ug/kg
1,1,2-Trichloroethane	ND	2600	ug/kg
Trichloroethene	ND	2600	ug/kg
1,2,3-Trichloropropane	ND	2600	ug/kg
Vinyl chloride	ND	2600	ug/kg
Xylenes (total)	ND	2600	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88 DIL	(59 - 138)
1,2-Dichloroethane-d4	91 DIL	(61 - 130)
Toluene-d8	82 DIL	(60 - 143)
4-Bromofluorobenzene	71 DIL	(47 - 158)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A5D140167-003	**Work Order #...:** G8CT61AA	**Matrix.....:** WQ
Date Sampled...: 04/12/05	**Date Received..:** 04/14/05	
Prep Date.....: 04/18/05	**Analysis Date..:** 04/18/05	
Prep Batch #...: 5108180		
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001754	**Instrument ID..:** UX7	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A5D140167-003 **Work Order #...:** GBCT61AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
1,2-Dichloroethane-d4	114	(61 - 128)
Toluene-d8	103	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-2 (8')

GC/MS Volatiles

Lot-Sample #...: A5D140167-004	**Work Order #...:** G8CT71AC	**Matrix.....:** SO	
Date Sampled...: 04/12/05 17:45	**Date Received..:** 04/14/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/15/05		
Prep Batch #...: 5108186			
Dilution Factor: 0.83	**Initial Wgt/Vol:** 6.05 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 16	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	250	ug/kg
Bromodichloromethane	ND	250	ug/kg
Bromoform	ND	250	ug/kg
Bromomethane	ND	490	ug/kg
Carbon tetrachloride	ND	250	ug/kg
Chlorobenzene	ND	250	ug/kg
Chlorodibromomethane	ND	250	ug/kg
Chloroethane	ND	490	ug/kg
Chloroform	ND	250	ug/kg
Chloromethane	ND	490	ug/kg
Dibromomethane	ND	250	ug/kg
1,2-Dichlorobenzene	ND	250	ug/kg
1,3-Dichlorobenzene	ND	250	ug/kg
1,4-Dichlorobenzene	ND	250	ug/kg
Dichlorodifluoromethane	ND	490	ug/kg
1,1-Dichloroethane	ND	250	ug/kg
1,2-Dichloroethane	ND	250	ug/kg
1,1-Dichloroethene	ND	250	ug/kg
cis-1,2-Dichloroethene	ND	250	ug/kg
trans-1,2-Dichloroethene	ND	250	ug/kg
1,2-Dichloropropane	ND	250	ug/kg
1,3-Dichloropropane	ND	250	ug/kg
2,2-Dichloropropane	ND	250	ug/kg
1,1-Dichloropropene	ND	250	ug/kg
1,4-Dioxane	**270000**	**12000**	**ug/kg**
Ethylbenzene	ND	250	ug/kg
Trichlorofluoromethane	ND	490	ug/kg
Hexachlorobutadiene	ND	250	ug/kg
Isopropylbenzene	ND	250	ug/kg
Methylene chloride	ND	250	ug/kg
Naphthalene	**310**	**250**	**ug/kg**
Styrene	ND	250	ug/kg
1,1,1,2-Tetrachloroethane	ND	250	ug/kg
1,1,2,2-Tetrachloroethane	ND	250	ug/kg
Tetrachloroethene	ND	250	ug/kg
Toluene	ND	250	ug/kg
1,2,4-Trichloro-benzene	ND	250	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-2 (8')

GC/MS Volatiles

Lot-Sample #...: A5D140167-004 **Work Order #...:** G8CT71AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**2300**	**250**	**ug/kg**
1,1,2-Trichloroethane	ND	250	ug/kg
Trichloroethene	**2600**	**250**	**ug/kg**
1,2,3-Trichloropropane	ND	250	ug/kg
Vinyl chloride	ND	250	ug/kg
Xylenes (total)	ND	250	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	70	(59 - 138)
1,2-Dichloroethane-d4	74	(61 - 130)
Toluene-d8	72	(60 - 143)
4-Bromofluorobenzene	67	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3 (4')

GC/MS Volatiles

Lot-Sample #...: A5D140167-005	**Work Order #...:** G8CT91AC	**Matrix.....:** SO	
Date Sampled...: 04/12/05 18:45	**Date Received..:** 04/14/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/15/05		
Prep Batch #...: 5108186			
Dilution Factor: 0.9	**Initial Wgt/Vol:** 5.58 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 15	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	260	ug/kg
Bromodichloromethane	ND	260	ug/kg
Bromoform	ND	260	ug/kg
Bromomethane	ND	530	ug/kg
Carbon tetrachloride	ND	260	ug/kg
Chlorobenzene	ND	260	ug/kg
Chlorodibromomethane	ND	260	ug/kg
Chloroethane	ND	530	ug/kg
Chloroform	ND	260	ug/kg
Chloromethane	ND	530	ug/kg
Dibromomethane	ND	260	ug/kg
1,2-Dichlorobenzene	ND	260	ug/kg
1,3-Dichlorobenzene	ND	260	ug/kg
1,4-Dichlorobenzene	ND	260	ug/kg
Dichlorodifluoromethane	ND	530	ug/kg
1,1-Dichloroethane	ND	260	ug/kg
1,2-Dichloroethane	ND	260	ug/kg
1,1-Dichloroethene	ND	260	ug/kg
cis-1,2-Dichloroethene	ND	260	ug/kg
trans-1,2-Dichloroethene	ND	260	ug/kg
1,2-Dichloropropane	ND	260	ug/kg
1,3-Dichloropropane	ND	260	ug/kg
2,2-Dichloropropane	ND	260	ug/kg
1,1-Dichloropropene	ND	260	ug/kg
1,4-Dioxane	**220000**	**13000**	**ug/kg**
Ethylbenzene	ND	260	ug/kg
Trichlorofluoromethane	ND	530	ug/kg
Hexachlorobutadiene	ND	260	ug/kg
Isopropylbenzene	ND	260	ug/kg
Methylene chloride	ND	260	ug/kg
Naphthalene	ND	260	ug/kg
Styrene	ND	260	ug/kg
1,1,1,2-Tetrachloroethane	ND	260	ug/kg
1,1,2,2-Tetrachloroethane	ND	260	ug/kg
Tetrachloroethene	ND	260	ug/kg
Toluene	ND	260	ug/kg
1,2,4-Trichloro-benzene	ND	260	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3 (4')

GC/MS Volatiles

Lot-Sample #...: A5D140167-005 **Work Order #...:** G8CT91AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**1100**	**260**	**ug/kg**
1,1,2-Trichloroethane	ND	260	ug/kg
Trichloroethene	**890**	**260**	**ug/kg**
1,2,3-Trichloropropane	ND	260	ug/kg
Vinyl chloride	ND	260	ug/kg
Xylenes (total)	ND	260	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	70	(59 - 138)
1,2-Dichloroethane-d4	74	(61 - 130)
Toluene-d8	70	(60 - 143)
4-Bromofluorobenzene	61	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3 (3')

GC/MS Volatiles

Lot-Sample #...:	A5D140167-006	**Work Order #...:**	G8CVA1AC	**Matrix.....:**	SO
Date Sampled...:	04/12/05 18:40	**Date Received..:**	04/14/05		
Prep Date.....:	04/15/05	**Analysis Date..:**	04/15/05		
Prep Batch #...:	5108186				
Dilution Factor:	0.96	**Initial Wgt/Vol:**	5.2 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	15	**Analyst ID.....:**	402279	**Instrument ID..:**	UX8
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	280	ug/kg
Bromodichloromethane	ND	280	ug/kg
Bromoform	ND	280	ug/kg
Bromomethane	ND	570	ug/kg
Carbon tetrachloride	ND	280	ug/kg
Chlorobenzene	ND	280	ug/kg
Chlorodibromomethane	ND	280	ug/kg
Chloroethane	ND	570	ug/kg
Chloroform	ND	280	ug/kg
Chloromethane	ND	570	ug/kg
Dibromomethane	ND	280	ug/kg
1,2-Dichlorobenzene	ND	280	ug/kg
1,3-Dichlorobenzene	ND	280	ug/kg
1,4-Dichlorobenzene	ND	280	ug/kg
Dichlorodifluoromethane	ND	570	ug/kg
1,1-Dichloroethane	ND	280	ug/kg
1,2-Dichloroethane	ND	280	ug/kg
1,1-Dichloroethene	ND	280	ug/kg
cis-1,2-Dichloroethene	ND	280	ug/kg
trans-1,2-Dichloroethene	ND	280	ug/kg
1,2-Dichloropropane	ND	280	ug/kg
1,3-Dichloropropane	ND	280	ug/kg
2,2-Dichloropropane	ND	280	ug/kg
1,1-Dichloropropene	ND	280	ug/kg
1,4-Dioxane	**290000**	**14000**	**ug/kg**
Ethylbenzene	ND	280	ug/kg
Trichlorofluoromethane	ND	570	ug/kg
Hexachlorobutadiene	ND	280	ug/kg
Isopropylbenzene	ND	280	ug/kg
Methylene chloride	ND	280	ug/kg
Naphthalene	ND	280	ug/kg
Styrene	ND	280	ug/kg
1,1,1,2-Tetrachloroethane	ND	280	ug/kg
1,1,2,2-Tetrachloroethane	ND	280	ug/kg
Tetrachloroethene	ND	280	ug/kg
Toluene	ND	280	ug/kg
1,2,4-Trichloro-benzene	ND	280	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3 (3')

GC/MS Volatiles

Lot-Sample #...: A5D140167-006 **Work Order #...:** G8CVA1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**320**	**280**	**ug/kg**
1,1,2-Trichloroethane	ND	280	ug/kg
Trichloroethene	**280**	**280**	**ug/kg**
1,2,3-Trichloropropane	ND	280	ug/kg
Vinyl chloride	ND	280	ug/kg
Xylenes (total)	ND	280	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	72	(59 - 138)
1,2-Dichloroethane-d4	76	(61 - 130)
Toluene-d8	72	(60 - 143)
4-Bromofluorobenzene	62	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4 (2')

GC/MS Volatiles

Lot-Sample #...: A5D140167-007	**Work Order #...:** G8CVC1AC	**Matrix.....:** SO	
Date Sampled...: 04/12/05 19:20	**Date Received..:** 04/14/05		
Prep Date.....: 04/18/05	**Analysis Date..:** 04/18/05		
Prep Batch #...: 5110163			
Dilution Factor: 0.95	**Initial Wgt/Vol:** 5 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 14	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.5	ug/kg
Bromodichloromethane	ND	5.5	ug/kg
Bromoform	ND	5.5	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.5	ug/kg
Chlorobenzene	ND	5.5	ug/kg
Chlorodibromomethane	ND	5.5	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.5	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.5	ug/kg
1,2-Dichlorobenzene	ND	5.5	ug/kg
1,3-Dichlorobenzene	ND	5.5	ug/kg
1,4-Dichlorobenzene	ND	5.5	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.5	ug/kg
1,2-Dichloroethane	ND	5.5	ug/kg
cis-1,2-Dichloroethene	ND	5.5	ug/kg
trans-1,2-Dichloroethene	ND	5.5	ug/kg
1,1-Dichloroethene	**19**	**5.5**	**ug/kg**
1,2-Dichloropropane	ND	5.5	ug/kg
1,3-Dichloropropane	ND	5.5	ug/kg
2,2-Dichloropropane	ND	5.5	ug/kg
1,1-Dichloropropene	ND	5.5	ug/kg
1,4-Dioxane	**650**	**280**	**ug/kg**
Ethylbenzene	ND	5.5	ug/kg
Hexachlorobutadiene	ND	5.5	ug/kg
Isopropylbenzene	ND	5.5	ug/kg
Methylene chloride	ND	5.5	ug/kg
Naphthalene	ND	5.5	ug/kg
Styrene	ND	5.5	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.5	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.5	ug/kg
Tetrachloroethene	ND	5.5	ug/kg
Toluene	ND	5.5	ug/kg
1,2,4-Trichloro-benzene	ND	5.5	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4 (2')

GC/MS Volatiles

Lot-Sample #...: A5D140167-007 **Work Order #...:** G8CVC1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**130**	**5.5**	**ug/kg**
1,1,2-Trichloroethane	**6.0**	**5.5**	**ug/kg**
Trichloroethene	**140**	**5.5**	**ug/kg**
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.5	ug/kg
Vinyl chloride	ND	5.5	ug/kg
Xylenes (total)	ND	5.5	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	99	(60 - 143)
4-Bromofluorobenzene	76	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4 (11')

GC/MS Volatiles

Lot-Sample #...: A5D140167-008	**Work Order #...:** G8CVD1AC	**Matrix.....:** SO
Date Sampled...: 04/12/05 19:50	**Date Received..:** 04/14/05	
Prep Date.....: 04/15/05	**Analysis Date..:** 04/15/05	
Prep Batch #...: 5108139		
Dilution Factor: 0.84	**Initial Wgt/Vol:** 5 g	**Final Wgt/Vol..:** 5 mL
% Moisture.....: 13	**Analyst ID.....:** 402279	**Instrument ID..:** UX8
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	4.8	ug/kg
Bromodichloromethane	ND	4.8	ug/kg
Bromoform	ND	4.8	ug/kg
Bromomethane	ND	9.6	ug/kg
Carbon tetrachloride	ND	4.8	ug/kg
Chlorobenzene	ND	4.8	ug/kg
Chlorodibromomethane	ND	4.8	ug/kg
Chloroethane	ND	9.6	ug/kg
Chloroform	ND	4.8	ug/kg
Chloromethane	ND	9.6	ug/kg
Dibromomethane	ND	4.8	ug/kg
1,2-Dichlorobenzene	ND	4.8	ug/kg
1,3-Dichlorobenzene	ND	4.8	ug/kg
1,4-Dichlorobenzene	ND	4.8	ug/kg
Dichlorodifluoromethane	ND	9.6	ug/kg
1,1-Dichloroethane	ND	4.8	ug/kg
1,2-Dichloroethane	ND	4.8	ug/kg
cis-1,2-Dichloroethene	**8.1**	**4.8**	**ug/kg**
trans-1,2-Dichloroethene	ND	4.8	ug/kg
1,1-Dichloroethene	**50**	**4.8**	**ug/kg**
1,2-Dichloropropane	ND	4.8	ug/kg
1,3-Dichloropropane	ND	4.8	ug/kg
2,2-Dichloropropane	ND	4.8	ug/kg
1,1-Dichloropropene	ND	4.8	ug/kg
1,4-Dioxane	ND	240	ug/kg
Ethylbenzene	ND	4.8	ug/kg
Hexachlorobutadiene	ND	4.8	ug/kg
Isopropylbenzene	ND	4.8	ug/kg
Methylene chloride	ND	4.8	ug/kg
Naphthalene	ND	4.8	ug/kg
Styrene	ND	4.8	ug/kg
1,1,1,2-Tetrachloroethane	ND	4.8	ug/kg
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg
Tetrachloroethene	ND	4.8	ug/kg
Toluene	ND	4.8	ug/kg
1,2,4-Trichloro-benzene	ND	4.8	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4 (11')

GC/MS Volatiles

Lot-Sample #...: A5D140167-008 **Work Order #...:** G8CVD1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**410 E**	**4.8**	**ug/kg**
1,1,2-Trichloroethane	**15**	**4.8**	**ug/kg**
Trichloroethene	**240 E**	**4.8**	**ug/kg**
Trichlorofluoromethane	ND	9.6	ug/kg
1,2,3-Trichloropropane	ND	4.8	ug/kg
Vinyl chloride	ND	4.8	ug/kg
Xylenes (total)	ND	4.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
1,2-Dichloroethane-d4	98	(61 - 130)
Toluene-d8	99	(60 - 143)
4-Bromofluorobenzene	82	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4 (11')

GC/MS Volatiles

Lot-Sample #...:	A5D140167-008	**Work Order #...:**	G8CVD2AC	**Matrix.....:**	SO
Date Sampled...:	04/12/05 19:50	**Date Received..:**	04/14/05		
Prep Date.....:	04/15/05	**Analysis Date..:**	04/18/05		
Prep Batch #...:	5108186				
Dilution Factor:	1.1	**Initial Wgt/Vol:**	4.56 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	13	**Analyst ID.....:**	402279	**Instrument ID..:**	UX8
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	320	ug/kg
Bromodichloromethane	ND	320	ug/kg
Bromoform	ND	320	ug/kg
Bromomethane	ND	630	ug/kg
Carbon tetrachloride	ND	320	ug/kg
Chlorobenzene	ND	320	ug/kg
Chlorodibromomethane	ND	320	ug/kg
Chloroethane	ND	630	ug/kg
Chloroform	ND	320	ug/kg
Chloromethane	ND	630	ug/kg
Dibromomethane	ND	320	ug/kg
1,2-Dichlorobenzene	ND	320	ug/kg
1,3-Dichlorobenzene	ND	320	ug/kg
1,4-Dichlorobenzene	ND	320	ug/kg
Dichlorodifluoromethane	ND	630	ug/kg
1,1-Dichloroethane	ND	320	ug/kg
1,2-Dichloroethane	ND	320	ug/kg
1,1-Dichloroethene	ND	320	ug/kg
cis-1,2-Dichloroethene	ND	320	ug/kg
trans-1,2-Dichloroethene	ND	320	ug/kg
1,2-Dichloropropane	ND	320	ug/kg
1,3-Dichloropropane	ND	320	ug/kg
2,2-Dichloropropane	ND	320	ug/kg
1,1-Dichloropropene	ND	320	ug/kg
1,4-Dioxane	ND	16000	ug/kg
Ethylbenzene	ND	320	ug/kg
Trichlorofluoromethane	ND	630	ug/kg
Hexachlorobutadiene	ND	320	ug/kg
Isopropylbenzene	ND	320	ug/kg
Methylene chloride	ND	320	ug/kg
Naphthalene	ND	320	ug/kg
Styrene	ND	320	ug/kg
1,1,1,2-Tetrachloroethane	ND	320	ug/kg
1,1,2,2-Tetrachloroethane	ND	320	ug/kg
Tetrachloroethene	ND	320	ug/kg
Toluene	ND	320	ug/kg
1,2,4-Trichloro-benzene	ND	320	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4 (11')

GC/MS Volatiles

Lot-Sample #...: A5D140167-008 **Work Order #...:** G8CVD2AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	320	ug/kg
1,1,2-Trichloroethane	ND	320	ug/kg
Trichloroethene	ND	320	ug/kg
1,2,3-Trichloropropane	ND	320	ug/kg
Vinyl chloride	ND	320	ug/kg
Xylenes (total)	ND	320	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	71	(59 - 138)
1,2-Dichloroethane-d4	73	(61 - 130)
Toluene-d8	70	(60 - 143)
4-Bromofluorobenzene	60	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-5 (3')

GC/MS Volatiles

Lot-Sample #...: A5D140167-009	**Work Order #...:** G8CVE1AC	**Matrix.....:** SO	
Date Sampled...: 04/12/05 21:00	**Date Received..:** 04/14/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/15/05		
Prep Batch #...: 5108139			
Dilution Factor: 0.97	**Initial Wgt/Vol:** 5 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 21	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1-Dichloropropene	ND	6.1	ug/kg
1,4-Dioxane	**8600**	**310**	**ug/kg**
Ethylbenzene	ND	6.1	ug/kg
Hexachlorobutadiene	ND	6.1	ug/kg
Isopropylbenzene	ND	6.1	ug/kg
Methylene chloride	ND	6.1	ug/kg
Naphthalene	ND	6.1	ug/kg
Styrene	ND	6.1	ug/kg
1,1,1,2-Tetrachloroethane	ND	6.1	ug/kg
1,1,2,2-Tetrachloroethane	ND	6.1	ug/kg
Tetrachloroethene	ND	6.1	ug/kg
Toluene	ND	6.1	ug/kg
1,2,4-Trichloro-benzene	ND	6.1	ug/kg
1,1,1-Trichloroethane	**250 E**	**6.1**	**ug/kg**
1,1,2-Trichloroethane	**6.4**	**6.1**	**ug/kg**
Trichloroethene	**200**	**6.1**	**ug/kg**
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	6.1	ug/kg
Vinyl chloride	ND	6.1	ug/kg
Xylenes (total)	ND	6.1	ug/kg
Benzene	ND	6.1	ug/kg
Bromodichloromethane	ND	6.1	ug/kg
Bromoform	ND	6.1	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	6.1	ug/kg
Chlorobenzene	ND	6.1	ug/kg
Chlorodibromomethane	ND	6.1	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	6.1	ug/kg
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	6.1	ug/kg
1,2-Dichlorobenzene	ND	6.1	ug/kg
1,3-Dichlorobenzene	ND	6.1	ug/kg
1,4-Dichlorobenzene	ND	6.1	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	6.1	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-5 (3')

GC/MS Volatiles

Lot-Sample #...: A5D140167-009 **Work Order #...:** G8CVE1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloroethane	ND	6.1	ug/kg
cis-1,2-Dichloroethene	ND	6.1	ug/kg
trans-1,2-Dichloroethene	ND	6.1	ug/kg
1,1-Dichloroethene	**51**	**6.1**	**ug/kg**
1,2-Dichloropropane	ND	6.1	ug/kg
1,3-Dichloropropane	ND	6.1	ug/kg
2,2-Dichloropropane	ND	6.1	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	98	(61 - 130)
Toluene-d8	101	(60 - 143)
4-Bromofluorobenzene	81	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-5 (3')

GC/MS Volatiles

Lot-Sample #...: A5D140167-009	**Work Order #...:** G8CVE2AC	**Matrix.....:** SO
Date Sampled...: 04/12/05 21:00	**Date Received..:** 04/14/05	
Prep Date.....: 04/15/05	**Analysis Date..:** 04/18/05	
Prep Batch #...: 5108186		
Dilution Factor: 1.17	**Initial Wgt/Vol:** 4.29 g	**Final Wgt/Vol..:** 5 mL
% Moisture.....: 21	**Analyst ID.....:** 402279	**Instrument ID..:** UX8
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	370	ug/kg
Bromodichloromethane	ND	370	ug/kg
Bromoform	ND	370	ug/kg
Bromomethane	ND	740	ug/kg
Carbon tetrachloride	ND	370	ug/kg
Chlorobenzene	ND	370	ug/kg
Chlorodibromomethane	ND	370	ug/kg
Chloroethane	ND	740	ug/kg
Chloroform	ND	370	ug/kg
Chloromethane	ND	740	ug/kg
Dibromomethane	ND	370	ug/kg
1,2-Dichlorobenzene	ND	370	ug/kg
1,3-Dichlorobenzene	ND	370	ug/kg
1,4-Dichlorobenzene	ND	370	ug/kg
Dichlorodifluoromethane	ND	740	ug/kg
1,1-Dichloroethane	ND	370	ug/kg
1,2-Dichloroethane	ND	370	ug/kg
1,1-Dichloroethene	ND	370	ug/kg
cis-1,2-Dichloroethene	ND	370	ug/kg
trans-1,2-Dichloroethene	ND	370	ug/kg
1,2-Dichloropropane	ND	370	ug/kg
1,3-Dichloropropane	ND	370	ug/kg
2,2-Dichloropropane	ND	370	ug/kg
1,1-Dichloropropene	ND	370	ug/kg
1,4-Dioxane	ND	18000	ug/kg
Ethylbenzene	ND	370	ug/kg
Trichlorofluoromethane	ND	740	ug/kg
Hexachlorobutadiene	ND	370	ug/kg
Isopropylbenzene	ND	370	ug/kg
Methylene chloride	ND	370	ug/kg
Naphthalene	ND	370	ug/kg
Styrene	ND	370	ug/kg
1,1,1,2-Tetrachloroethane	ND	370	ug/kg
1,1,2,2-Tetrachloroethane	ND	370	ug/kg
Tetrachloroethene	ND	370	ug/kg
Toluene	ND	370	ug/kg
1,2,4-Trichloro-benzene	ND	370	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-5 (3')

GC/MS Volatiles

Lot-Sample #...: A5D140167-009 **Work Order #...:** G8CVE2AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	370	ug/kg
1,1,2-Trichloroethane	ND	370	ug/kg
Trichloroethene	ND	370	ug/kg
1,2,3-Trichloropropane	ND	370	ug/kg
Vinyl chloride	ND	370	ug/kg
Xylenes (total)	ND	370	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	68	(59 - 138)
1,2-Dichloroethane-d4	69	(61 - 130)
Toluene-d8	69	(60 - 143)
4-Bromofluorobenzene	56	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KN41AA **Matrix.....:** SOLID
MB Lot-Sample #: A5D180000-139

Prep Date.....: 04/15/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 04/15/05 **Prep Batch #...:** 5108139 **Instrument ID..:** UX8
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g
Analyst ID.....: 402279

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KN41AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	95	(61 - 130)
Toluene-d8	100	(60 - 143)
4-Bromofluorobenzene	84	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KT61AE **Matrix.....:** WATER
MB Lot-Sample #: A5D180000-180

Prep Date.....: 04/18/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 04/18/05 **Prep Batch #...:** 5108180 **Instrument ID..:** UX7
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL
Analyst ID.....: 1754

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KT61AE **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(73 - 122)
1,2-Dichloroethane-d4	110	(61 - 128)
Toluene-d8	104	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KVW1AA **Matrix.....:** SOLID
MB Lot-Sample #: A5D180000-186

Analysis Date..: 04/15/05 **Prep Date.....:** 04/15/05 **Final Wgt/Vol..:** 5 mL
Dilution Factor: 1 **Prep Batch #...:** 5108186 **Instrument ID..:** UX8
Initial Wgt/Vol: 5 g
Analyst ID.....: 402279

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	250	ug/kg	SW846 8260B
Bromodichloromethane	ND	250	ug/kg	SW846 8260B
Bromoform	ND	250	ug/kg	SW846 8260B
Bromomethane	ND	500	ug/kg	SW846 8260B
Carbon tetrachloride	ND	250	ug/kg	SW846 8260B
Chlorobenzene	ND	250	ug/kg	SW846 8260B
Chlorodibromomethane	ND	250	ug/kg	SW846 8260B
Chloroethane	ND	500	ug/kg	SW846 8260B
Chloroform	ND	250	ug/kg	SW846 8260B
Chloromethane	ND	500	ug/kg	SW846 8260B
Dibromomethane	ND	250	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	500	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	250	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	250	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	250	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	250	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	250	ug/kg	SW846 8260B
1,4-Dioxane	ND	12000	ug/kg	SW846 8260B
Ethylbenzene	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	500	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	250	ug/kg	SW846 8260B
Isopropylbenzene	ND	250	ug/kg	SW846 8260B
Methylene chloride	ND	250	ug/kg	SW846 8260B
Naphthalene	ND	250	ug/kg	SW846 8260B
Styrene	ND	250	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
Tetrachloroethene	ND	250	ug/kg	SW846 8260B
Toluene	ND	250	ug/kg	SW846 8260B
1,2,4-Trichlorobenzene	ND	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	250	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	250	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KVW1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichloroethene	ND	250	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	250	ug/kg	SW846 8260B
Vinyl chloride	ND	250	ug/kg	SW846 8260B
Xylenes (total)	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	77	(60 - 143)
4-Bromofluorobenzene	67	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8PQ21AA **Matrix.....:** SOLID
MB Lot-Sample #: A5D200000-163

Prep Date.....: 04/18/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 04/18/05 **Prep Batch #...:** 5110163 **Instrument ID..:** UX8
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g
Analyst ID.....: 402279

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8PQ21AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(59 - 138)
1,2-Dichloroethane-d4	90	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	81	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KN41AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D180000-139 G8KN41AD-LCSD
Prep Date.....: 04/15/05 **Analysis Date..:** 04/15/05
Prep Batch #...: 5108139
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 402279 **Instrument ID..:** UX8

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**93**	**(55 - 142)**			**SW846 8260B**
	92	**(55 - 142)**	**0.96**	**(0-27)**	**SW846 8260B**
Trichloroethene	**95**	**(70 - 131)**			**SW846 8260B**
	91	**(70 - 131)**	**4.0**	**(0-23)**	**SW846 8260B**
Benzene	**93**	**(75 - 129)**			**SW846 8260B**
	92	**(75 - 129)**	**0.69**	**(0-20)**	**SW846 8260B**
Toluene	**93**	**(71 - 130)**			**SW846 8260B**
	91	**(71 - 130)**	**2.5**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**91**	**(75 - 127)**			**SW846 8260B**
	89	**(75 - 127)**	**2.1**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
	97	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
	95	(61 - 130)
Toluene-d8	101	(60 - 143)
	101	(60 - 143)
4-Bromofluorobenzene	91	(47 - 158)
	92	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KN41AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D180000-139 G8KN41AD-LCSD
Prep Date.....: 04/15/05 **Analysis Date..:** 04/15/05
Prep Batch #...: 5108139
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 402279 **Instrument ID..:** UX8

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**50**	**46**	**ug/kg**	**93**		**SW846 8260B**
	50	**46**	**ug/kg**	**92**	**0.96**	**SW846 8260B**
Trichloroethene	**50**	**48**	**ug/kg**	**95**		**SW846 8260B**
	50	**46**	**ug/kg**	**91**	**4.0**	**SW846 8260B**
Benzene	**50**	**46**	**ug/kg**	**93**		**SW846 8260B**
	50	**46**	**ug/kg**	**92**	**0.69**	**SW846 8260B**
Toluene	**50**	**47**	**ug/kg**	**93**		**SW846 8260B**
	50	**45**	**ug/kg**	**91**	**2.5**	**SW846 8260B**
Chlorobenzene	**50**	**45**	**ug/kg**	**91**		**SW846 8260B**
	50	**45**	**ug/kg**	**89**	**2.1**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
	97	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
	95	(61 - 130)
Toluene-d8	101	(60 - 143)
	101	(60 - 143)
4-Bromofluorobenzene	91	(47 - 158)
	92	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KT61AF-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5D180000-180 G8KT61AG-LCSD
Prep Date.....: 04/18/05 **Analysis Date..:** 04/18/05
Prep Batch #...: 5108180
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001754 **Instrument ID..:** UX7

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**92**	**(80 - 116)**			**SW846 8260B**
	103	**(80 - 116)**	**11**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	108	**(76 - 117)**	**9.8**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**98**	**(63 - 130)**			**SW846 8260B**
	107	**(63 - 130)**	**9.1**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(74 - 119)**			**SW846 8260B**
	115	**(74 - 119)**	**16**	**(0-20)**	**SW846 8260B**
Trichloroethene	**90**	**(75 - 122)**			**SW846 8260B**
	100	**(75 - 122)**	**10**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
	105	(61 - 128)
Toluene-d8	110	(76 - 110)
	114 *	(76 - 110)
4-Bromofluorobenzene	109	(74 - 116)
	114	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KT61AF-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5D180000-180 G8KT61AG-LCSD
Prep Date.....: 04/18/05 **Analysis Date..:** 04/18/05
Prep Batch #...: 5108180
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001754 **Instrument ID..:** UX7

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10**	**9.2**	**ug/L**	**92**		**SW846 8260B**
	10	**10**	**ug/L**	**103**	**11**	**SW846 8260B**
Chlorobenzene	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	10	**11**	**ug/L**	**108**	**9.8**	**SW846 8260B**
1,1-Dichloroethene	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	10	**11**	**ug/L**	**107**	**9.1**	**SW846 8260B**
Toluene	**10**	**9.8**	**ug/L**	**98**		**SW846 8260B**
	10	**11**	**ug/L**	**115**	**16**	**SW846 8260B**
Trichloroethene	**10**	**9.0**	**ug/L**	**90**		**SW846 8260B**
	10	**10**	**ug/L**	**100**	**10**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
	105	(61 - 128)
Toluene-d8	110	(76 - 110)
	114 *	(76 - 110)
4-Bromofluorobenzene	109	(74 - 116)
	114	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KVW1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D180000-186 G8KVW1AD-LCSD
Prep Date.....: 04/15/05 **Analysis Date..:** 04/15/05
Prep Batch #...: 5108186
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 402279 **Instrument ID..:** UX8

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**93**	**(75 - 129)**			**SW846 8260B**
	93	**(75 - 129)**	**0.10**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**94**	**(75 - 127)**			**SW846 8260B**
	91	**(75 - 127)**	**3.7**	**(0-22)**	**SW846 8260B**
1,1-Dichloroethene	**92**	**(55 - 142)**			**SW846 8260B**
	91	**(55 - 142)**	**1.5**	**(0-27)**	**SW846 8260B**
Toluene	**96**	**(71 - 130)**			**SW846 8260B**
	97	**(71 - 130)**	**0.40**	**(0-24)**	**SW846 8260B**
Trichloroethene	**96**	**(70 - 131)**			**SW846 8260B**
	93	**(70 - 131)**	**3.0**	**(0-23)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(59 - 138)
	77	(59 - 138)
1,2-Dichloroethane-d4	79	(61 - 130)
	78	(61 - 130)
Toluene-d8	79	(60 - 143)
	78	(60 - 143)
4-Bromofluorobenzene	75	(47 - 158)
	73	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8KVW1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D180000-186 G8KVW1AD-LCSD
Prep Date.....: 04/15/05 **Analysis Date..:** 04/15/05
Prep Batch #...: 5108186
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 402279 **Instrument ID..:** UX8

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**1000**	**930**	**ug/kg**	**93**		**SW846 8260B**
	1000	**930**	**ug/kg**	**93**	**0.10**	**SW846 8260B**
Chlorobenzene	**1000**	**940**	**ug/kg**	**94**		**SW846 8260B**
	1000	**910**	**ug/kg**	**91**	**3.7**	**SW846 8260B**
1,1-Dichloroethene	**1000**	**920**	**ug/kg**	**92**		**SW846 8260B**
	1000	**910**	**ug/kg**	**91**	**1.5**	**SW846 8260B**
Toluene	**1000**	**960**	**ug/kg**	**96**		**SW846 8260B**
	1000	**970**	**ug/kg**	**97**	**0.40**	**SW846 8260B**
Trichloroethene	**1000**	**960**	**ug/kg**	**96**		**SW846 8260B**
	1000	**930**	**ug/kg**	**93**	**3.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(59 - 138)
	77	(59 - 138)
1,2-Dichloroethane-d4	79	(61 - 130)
	78	(61 - 130)
Toluene-d8	79	(60 - 143)
	78	(60 - 143)
4-Bromofluorobenzene	75	(47 - 158)
	73	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8PQ21AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D200000-163 G8PQ21AD-LCSD
Prep Date.....: 04/18/05 **Analysis Date..:** 04/18/05
Prep Batch #...: 5110163
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 402279 **Instrument ID..:** UX8

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**84**	**(55 - 142)**			**SW846 8260B**
	88	**(55 - 142)**	**4.3**	**(0-27)**	**SW846 8260B**
Trichloroethene	**87**	**(70 - 131)**			**SW846 8260B**
	94	**(70 - 131)**	**7.4**	**(0-23)**	**SW846 8260B**
Benzene	**86**	**(75 - 129)**			**SW846 8260B**
	91	**(75 - 129)**	**5.5**	**(0-20)**	**SW846 8260B**
Toluene	**83**	**(71 - 130)**			**SW846 8260B**
	86	**(71 - 130)**	**4.2**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**83**	**(75 - 127)**			**SW846 8260B**
	87	**(75 - 127)**	**5.2**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
	94	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
	91	(61 - 130)
Toluene-d8	99	(60 - 143)
	101	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)
	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5D140167 **Work Order #...:** G8PQ21AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D200000-163 G8PQ21AD-LCSD
Prep Date.....: 04/18/05 **Analysis Date..:** 04/18/05
Prep Batch #...: 5110163
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 402279 **Instrument ID..:** UX8

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**50**	**42**	**ug/kg**	**84**		**SW846 8260B**
	50	**44**	**ug/kg**	**88**	**4.3**	**SW846 8260B**
Trichloroethene	**50**	**43**	**ug/kg**	**87**		**SW846 8260B**
	50	**47**	**ug/kg**	**94**	**7.4**	**SW846 8260B**
Benzene	**50**	**43**	**ug/kg**	**86**		**SW846 8260B**
	50	**45**	**ug/kg**	**91**	**5.5**	**SW846 8260B**
Toluene	**50**	**41**	**ug/kg**	**83**		**SW846 8260B**
	50	**43**	**ug/kg**	**86**	**4.2**	**SW846 8260B**
Chlorobenzene	**50**	**41**	**ug/kg**	**83**		**SW846 8260B**
	50	**44**	**ug/kg**	**87**	**5.2**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
	94	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
	91	(61 - 130)
Toluene-d8	99	(60 - 143)
	101	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)
	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SEVERN TRENT STL

GENERAL CHEMISTRY DATA

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-1 (2')

General Chemistry

Lot-Sample #...: A5D140167-001 **Work Order #...:** G8CT0 **Matrix.....:** SO
Date Sampled...: 04/12/05 16:30 **Date Received..:** 04/14/05
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	**84.1**	**10.0**	**%**	**MCAWW 160.3 MOD**	**04/14-04/15/05**	**5104367**

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-1 (4')

General Chemistry

Lot-Sample #...: A5D140167-002 **Work Order #...:** G8CT5 **Matrix.....:** SO
Date Sampled...: 04/12/05 16:45 **Date Received..:** 04/14/05
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.3	10.0	%	MCAWW 160.3 MOD	04/14-04/15/05	5104367

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-2 (8')

General Chemistry

Lot-Sample #...: A5D140167-004 **Work Order #...:** G8CT7 **Matrix.....:** SO
Date Sampled...: 04/12/05 17:45 **Date Received..:** 04/14/05
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	**84.2**	**10.0**	**%**	**MCAWW 160.3 MOD**	**04/14-04/15/05**	**5104367**

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3 (4')

General Chemistry

Lot-Sample #...: A5D140167-005 **Work Order #...:** G8CT9 **Matrix.....:** SO
Date Sampled...: 04/12/05 18:45 **Date Received..:** 04/14/05
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.5	10.0	%	MCAWW 160.3 MOD	04/14-04/15/05	5104367

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3 (3')

General Chemistry

Lot-Sample #...: A5D140167-006 Work Order #...: G8CVA Matrix.....: SO
Date Sampled...: 04/12/05 18:40 Date Received..: 04/14/05
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.7	10.0	%	MCAWW 160.3 MOD	04/14-04/15/05	5104367

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4 (2')

General Chemistry

Lot-Sample #...: A5D140167-007 **Work Order #...:** G8CVC **Matrix.....:** SO
Date Sampled...: 04/12/05 19:20 **Date Received..:** 04/14/05
% Moisture.....: 14

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	**85.6**	**10.0**	**%**	**MCAWW 160.3 MOD**	**04/14-04/15/05**	**5104367**

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4 (11')

General Chemistry

Lot-Sample #...: A5D140167-008 **Work Order #...:** G8CVD **Matrix.....:** SO
Date Sampled...: 04/12/05 19:50 **Date Received..:** 04/14/05
% Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	**87.1**	**10.0**	**%**	**MCAWW 160.3 MOD**	**04/14-04/15/05**	**5104367**

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-5 (3')

General Chemistry

Lot-Sample #...: A5D140167-009 **Work Order #...:** G8CVE **Matrix.....:** SO
Date Sampled...: 04/12/05 21:00 **Date Received..:** 04/14/05
% Moisture.....: 21

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	**79.4**	**10.0**	**%**	**MCAWW 160.3 MOD**	**04/14-04/15/05**	**5104367**

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5D140167 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: G8D441AA		MB Lot-Sample #:	A5D140000-367	
	ND	10.0	%	MCAWW 160.3 MOD	04/14-04/15/05	5104367
		Dilution Factor: 1				

Analyst ID.....: 006801 Instrument ID..: NO

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A5D140167 **Work Order #...:** G8CVA-SMP G8CVA-DUP **Matrix.....:** SO

Date Sampled...: 04/12/05 18:40 **Date Received..:** 04/14/05

% Moisture.....: 15

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A5D140167-006		
	84.7	85.7	%	1.2	(0-20)	MCAWW 160.3 MOD	04/14-04/15/05	5104367

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A5D140167 **Work Order #...:** G8CVC-SMP G8CVC-DUP **Matrix.....:** SO

Date Sampled...: 04/12/05 19:20 **Date Received..:** 04/14/05

% Moisture.....: 14

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A5D140167-007		
	85.6	84.9	%	0.88	(0-20)	MCAWW 160.3 MOD	04/14-04/15/05	5104367
		Dilution Factor: 1				Analyst ID.....: 006801	Instrument ID..: NO INST	

Chain of Custody Record

TRENT STL
Severn Trent Laboratories, Inc.

L-4124 (0901)

Client: Mactec Engineering	Project Manager: Rhonda Quinn	Date: 4-12-05	Chain of Custody Number: 200881
Address: 3200 Town Point Dr	Telephone Number (Area Code)/Fax Number: 770-421-3516 / 770 4213486	Lab Number:	Page 1 of 1
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact: Rhonda Quinn; Lab Contact: Roger Toth		
Project Name and Location (State): Thermo King - Louisville GA	Carrier/Waybill Number: 4652 4469 6576 Fed Ex		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 5-gram EnCore	25gram SPLP	SPLP Soil Core	2oz Moisture	Special Instructions/ Conditions of Receipt
Kd-1 (2')	4-12-05	1630				X							3	2		1	
Kd-1 (4')	4-12-05	1645				X							3	2		1	
Trip Blank										2							
Kd-2 (8')	4-12-05	1745											3	2		1	
Kd-3 (4')	4-12-05	1845											3	1	1	1	
Kd-3 (3')	4-12-05	1840											3	1	1	1	
Kd-4 (2')	4-12-05	1920											3	1	1	1	
Kd-4 (11')	4-12-05	1950											3	1	1	1	
Kd-5 (3')	4-12-05	2100											3	1	1	1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other ____ (1 wk on total VOC; SPLP)

QC Requirements (Specify): Analyze VOCs in 5-gram Freeze 25gram SPLP VOCs upon receipt + hold & Soil Core

	Date	Time		Date	Time
1. Relinquished By: [signature]	4/12/05	2130	1. Received By: [signature]	4-12-05	2130
2. Relinquished By: [signature]	4-13-05	1800	2. Received By: [signature]	4-14-05	0935
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton

15

SAMPLE SUMMARY

A5D150281

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
G8GV9	001	KD7 (3)	04/13/05	15:10
G8GWM	002	KD8 (9)	04/13/05	16:00
G8GWN	003	KD9 (10)	04/13/05	19:50
G8GWP	004	KD9 (9)	04/13/05	19:55
G8GWT	005	KD9 (7)	04/13/05	20:00
G8GWV	006	KD10 (3)	04/13/05	20:45
G8GWW	007	KD10 (9)	04/13/05	20:50
G8GW0	008	KD10 (13)	04/13/05	20:55
G8GW1	009	KD10 (15)	04/13/05	21:00
G8GW2	010	KD10 (17)	04/13/05	21:05
G8GW3	011	KD11 (4)	04/13/05	22:35
G8GW4	012	KD11 (6)	04/13/05	22:40
G8GW5	013	KD12 (9)	04/13/05	23:40
G8GXE	014	KD12 (10)	04/13/05	23:45
G8GXG	015	TRIP BLANKS	04/12/05	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
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Tel: 330 497 9396 Fax: 330 497 0772
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ANALYTICAL REPORT

PROJECT NO. 1200002050.403

THERMO KING-LOUISVILLE, GA

Lot #: A5D150281

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

April 28, 2005

CASE NARRATIVE

A5D150281

The following report contains the analytical results for fourteen solid samples and one quality control sample submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the THERMO KING-LOUISVILLE, GA Site, project number 1200002050.403. The samples were received April 15, 2005, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on April 22, 2005. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperatures of the coolers upon sample receipt were 1.0 and 1.2°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

Result concentration exceeds the calibration range. Refer to the sample report pages for the affected compound(s) flagged with "E".

Two analyses were used to report the sample(s) KD10 (13), KD10 (17), and KD12 (9) due to high analyte concentrations.

Sample(s) KD7 (3) was not preserved within the recommended holding time. The sample was collected on April 13, 2005 at 15:10 and received at the laboratory on April 15, 2005. The sample was preserved on April 15, 2005 at 15:43.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A5D150281

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
KD7 (3) 04/13/05 15:10 001				
cis-1,2-Dichloroethene	8.3	5.3	ug/kg	SW846 8260B
Trichloroethene	56	5.3	ug/kg	SW846 8260B
Percent Solids	84.6	10.0	%	MCAWW 160.3 MOD
KD8 (9) 04/13/05 16:00 002				
Trichloroethene	460	260	ug/kg	SW846 8260B
Percent Solids	83.5	10.0	%	MCAWW 160.3 MOD
KD9 (10) 04/13/05 19:50 003				
Trichloroethene	650	300	ug/kg	SW846 8260B
Percent Solids	86.2	10.0	%	MCAWW 160.3 MOD
KD9 (9) 04/13/05 19:55 004				
Trichloroethene	1000	260	ug/kg	SW846 8260B
Percent Solids	84.4	10.0	%	MCAWW 160.3 MOD
KD9 (7) 04/13/05 20:00 005				
Trichloroethene	780	260	ug/kg	SW846 8260B
Percent Solids	85.5	10.0	%	MCAWW 160.3 MOD
KD10 (3) 04/13/05 20:45 006				
cis-1,2-Dichloroethene	380	290	ug/kg	SW846 8260B
Trichloroethene	1800	290	ug/kg	SW846 8260B
Percent Solids	85.0	10.0	%	MCAWW 160.3 MOD
KD10 (9) 04/13/05 20:50 007				
cis-1,2-Dichloroethene	300	290	ug/kg	SW846 8260B
Trichloroethene	1800	290	ug/kg	SW846 8260B
Percent Solids	85.8	10.0	%	MCAWW 160.3 MOD
KD10 (13) 04/13/05 20:55 008				
Chloroform	11	5.9	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	150	5.9	ug/kg	SW846 8260B
1,1-Dichloroethene	11	5.9	ug/kg	SW846 8260B
1,1,1-Trichloroethane	14	5.9	ug/kg	SW846 8260B
Trichloroethene	810 E	5.9	ug/kg	SW846 8260B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5D150281

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
KD10 (13) 04/13/05 20:55 008				
Percent Solids	86.6	10.0	%	MCAWW 160.3 MOD
KD10 (15) 04/13/05 21:00 009				
Trichloroethene	830	260	ug/kg	SW846 8260B
Percent Solids	86.6	10.0	%	MCAWW 160.3 MOD
KD10 (17) 04/13/05 21:05 010				
cis-1,2-Dichloroethene	41	5.3	ug/kg	SW846 8260B
1,1-Dichloroethene	6.1	5.3	ug/kg	SW846 8260B
1,1,1-Trichloroethane	13	5.3	ug/kg	SW846 8260B
Trichloroethene	340 E	5.3	ug/kg	SW846 8260B
Percent Solids	87.0	10.0	%	MCAWW 160.3 MOD
KD11 (4) 04/13/05 22:35 011				
Trichloroethene	1700	280	ug/kg	SW846 8260B
Percent Solids	84.6	10.0	%	MCAWW 160.3 MOD
KD11 (6) 04/13/05 22:40 012				
Trichloroethene	730	360	ug/kg	SW846 8260B
Percent Solids	83.6	10.0	%	MCAWW 160.3 MOD
KD12 (9) 04/13/05 23:40 013				
cis-1,2-Dichloroethene	18	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	6.1	5.0	ug/kg	SW846 8260B
Trichloroethene	380 E	5.0	ug/kg	SW846 8260B
Percent Solids	85.5	10.0	%	MCAWW 160.3 MOD
KD12 (10) 04/13/05 23:45 014				
cis-1,2-Dichloroethene	7.7	5.9	ug/kg	SW846 8260B
Trichloroethene	170	5.9	ug/kg	SW846 8260B
Percent Solids	85.2	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A5D150281

PARAMETER	ANALYTICAL METHOD
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

A5D150281

ANALYTICAL METHOD	ANALYST	ANALYST ID
MCAWW 160.3 MOD	Bruce L. Woodward	006801
SW846 8260B	Richard J. Quayle	001904
SW846 8260B	Susan M. McDaniel	001819
SW846 8260B	Todd Lata	402279

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SEVERN TRENT STL

GCMS VOLATILE DATA

MACTEC Engineering and Consulting Inc

Client Sample ID: KD7 (3)

GC/MS Volatiles

Lot-Sample #...: A5D150281-001	**Work Order #...:** G8GV91AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 15:10	**Date Received..:** 04/15/05		
Prep Date.....: 04/18/05	**Analysis Date..:** 04/18/05		
Prep Batch #...: 5110163			
Dilution Factor: 0.89	**Initial Wgt/Vol:** 5 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 15	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.3	ug/kg
Bromodichloromethane	ND	5.3	ug/kg
Bromoform	ND	5.3	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.3	ug/kg
Chlorobenzene	ND	5.3	ug/kg
Chlorodibromomethane	ND	5.3	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.3	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.3	ug/kg
1,2-Dichlorobenzene	ND	5.3	ug/kg
1,3-Dichlorobenzene	ND	5.3	ug/kg
1,4-Dichlorobenzene	ND	5.3	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.3	ug/kg
1,2-Dichloroethane	ND	5.3	ug/kg
cis-1,2-Dichloroethene	**8.3**	**5.3**	**ug/kg**
trans-1,2-Dichloroethene	ND	5.3	ug/kg
1,1-Dichloroethene	ND	5.3	ug/kg
1,2-Dichloropropane	ND	5.3	ug/kg
1,3-Dichloropropane	ND	5.3	ug/kg
2,2-Dichloropropane	ND	5.3	ug/kg
1,1-Dichloropropene	ND	5.3	ug/kg
1,4-Dioxane	ND	260	ug/kg
Ethylbenzene	ND	5.3	ug/kg
Hexachlorobutadiene	ND	5.3	ug/kg
Isopropylbenzene	ND	5.3	ug/kg
Methylene chloride	ND	5.3	ug/kg
Naphthalene	ND	5.3	ug/kg
Styrene	ND	5.3	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.3	ug/kg
Tetrachloroethene	ND	5.3	ug/kg
Toluene	ND	5.3	ug/kg
1,2,4-Trichloro-benzene	ND	5.3	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD7 (3)

GC/MS Volatiles

Lot-Sample #...: A5D150281-001 **Work Order #...:** G8GV91AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	5.3	ug/kg
1,1,2-Trichloroethane	ND	5.3	ug/kg
Trichloroethene	**56**	**5.3**	**ug/kg**
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.3	ug/kg
Vinyl chloride	ND	5.3	ug/kg
Xylenes (total)	ND	5.3	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	99	(60 - 143)
4-Bromofluorobenzene	78	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD8 (9)

GC/MS Volatiles

Lot-Sample #...: A5D150281-002	**Work Order #...:** G8GWM1AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 16:00	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/18/05		
Prep Batch #...: 5110044			
Dilution Factor: 0.88	**Initial Wgt/Vol:** 5.7 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 16	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	260	ug/kg
Bromodichloromethane	ND	260	ug/kg
Bromoform	ND	260	ug/kg
Bromomethane	ND	530	ug/kg
Carbon tetrachloride	ND	260	ug/kg
Chlorobenzene	ND	260	ug/kg
Chlorodibromomethane	ND	260	ug/kg
Chloroethane	ND	530	ug/kg
Chloroform	ND	260	ug/kg
Chloromethane	ND	530	ug/kg
Dibromomethane	ND	260	ug/kg
1,2-Dichlorobenzene	ND	260	ug/kg
1,3-Dichlorobenzene	ND	260	ug/kg
1,4-Dichlorobenzene	ND	260	ug/kg
Dichlorodifluoromethane	ND	530	ug/kg
1,1-Dichloroethane	ND	260	ug/kg
1,2-Dichloroethane	ND	260	ug/kg
1,1-Dichloroethene	ND	260	ug/kg
cis-1,2-Dichloroethene	ND	260	ug/kg
trans-1,2-Dichloroethene	ND	260	ug/kg
1,2-Dichloropropane	ND	260	ug/kg
1,3-Dichloropropane	ND	260	ug/kg
2,2-Dichloropropane	ND	260	ug/kg
1,1-Dichloropropene	ND	260	ug/kg
1,4-Dioxane	ND	13000	ug/kg
Ethylbenzene	ND	260	ug/kg
Trichlorofluoromethane	ND	530	ug/kg
Hexachlorobutadiene	ND	260	ug/kg
Isopropylbenzene	ND	260	ug/kg
Methylene chloride	ND	260	ug/kg
Naphthalene	ND	260	ug/kg
Styrene	ND	260	ug/kg
1,1,1,2-Tetrachloroethane	ND	260	ug/kg
1,1,2,2-Tetrachloroethane	ND	260	ug/kg
Tetrachloroethene	ND	260	ug/kg
Toluene	ND	260	ug/kg
1,2,4-Trichloro-benzene	ND	260	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD8 (9)

GC/MS Volatiles

Lot-Sample #...: A5D150281-002 **Work Order #...:** G8GWM1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	260	ug/kg
1,1,2-Trichloroethane	ND	260	ug/kg
Trichloroethene	**460**	**260**	**ug/kg**
1,2,3-Trichloropropane	ND	260	ug/kg
Vinyl chloride	ND	260	ug/kg
Xylenes (total)	ND	260	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(59 - 138)
1,2-Dichloroethane-d4	85	(61 - 130)
Toluene-d8	76	(60 - 143)
4-Bromofluorobenzene	61	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD9 (10)

GC/MS Volatiles

Lot-Sample #...: A5D150281-003	**Work Order #...:** G8GWN1AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 19:50	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/18/05		
Prep Batch #...: 5110044			
Dilution Factor: 1.02	**Initial Wgt/Vol:** 4.9 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 14	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	300	ug/kg
Bromodichloromethane	ND	300	ug/kg
Bromoform	ND	300	ug/kg
Bromomethane	ND	590	ug/kg
Carbon tetrachloride	ND	300	ug/kg
Chlorobenzene	ND	300	ug/kg
Chlorodibromomethane	ND	300	ug/kg
Chloroethane	ND	590	ug/kg
Chloroform	ND	300	ug/kg
Chloromethane	ND	590	ug/kg
Dibromomethane	ND	300	ug/kg
1,2-Dichlorobenzene	ND	300	ug/kg
1,3-Dichlorobenzene	ND	300	ug/kg
1,4-Dichlorobenzene	ND	300	ug/kg
Dichlorodifluoromethane	ND	590	ug/kg
1,1-Dichloroethane	ND	300	ug/kg
1,2-Dichloroethane	ND	300	ug/kg
1,1-Dichloroethene	ND	300	ug/kg
cis-1,2-Dichloroethene	ND	300	ug/kg
trans-1,2-Dichloroethene	ND	300	ug/kg
1,2-Dichloropropane	ND	300	ug/kg
1,3-Dichloropropane	ND	300	ug/kg
2,2-Dichloropropane	ND	300	ug/kg
1,1-Dichloropropene	ND	300	ug/kg
1,4-Dioxane	ND	15000	ug/kg
Ethylbenzene	ND	300	ug/kg
Trichlorofluoromethane	ND	590	ug/kg
Hexachlorobutadiene	ND	300	ug/kg
Isopropylbenzene	ND	300	ug/kg
Methylene chloride	ND	300	ug/kg
Naphthalene	ND	300	ug/kg
Styrene	ND	300	ug/kg
1,1,1,2-Tetrachloroethane	ND	300	ug/kg
1,1,2,2-Tetrachloroethane	ND	300	ug/kg
Tetrachloroethene	ND	300	ug/kg
Toluene	ND	300	ug/kg
1,2,4-Trichloro-benzene	ND	300	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD9 (10)

GC/MS Volatiles

Lot-Sample #...: A5D150281-003 **Work Order #...:** G8GWN1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	300	ug/kg
1,1,2-Trichloroethane	ND	300	ug/kg
Trichloroethene	**650**	**300**	**ug/kg**
1,2,3-Trichloropropane	ND	300	ug/kg
Vinyl chloride	ND	300	ug/kg
Xylenes (total)	ND	300	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	72	(59 - 138)
1,2-Dichloroethane-d4	79	(61 - 130)
Toluene-d8	67	(60 - 143)
4-Bromofluorobenzene	57	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD9 (9)

GC/MS Volatiles

Lot-Sample #...: A5D150281-004	**Work Order #...:** G8GWP1AC		**Matrix.....:** SO
Date Sampled...: 04/13/05 19:55	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/19/05		
Prep Batch #...: 5110044			
Dilution Factor: 0.88	**Initial Wgt/Vol:** 5.69 g		**Final Wgt/Vol..:** 5 mL
% Moisture.....: 16	**Analyst ID.....:** 402279		**Instrument ID..:** UX8
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	260	ug/kg
Bromodichloromethane	ND	260	ug/kg
Bromoform	ND	260	ug/kg
Bromomethane	ND	520	ug/kg
Carbon tetrachloride	ND	260	ug/kg
Chlorobenzene	ND	260	ug/kg
Chlorodibromomethane	ND	260	ug/kg
Chloroethane	ND	520	ug/kg
Chloroform	ND	260	ug/kg
Chloromethane	ND	520	ug/kg
Dibromomethane	ND	260	ug/kg
1,2-Dichlorobenzene	ND	260	ug/kg
1,3-Dichlorobenzene	ND	260	ug/kg
1,4-Dichlorobenzene	ND	260	ug/kg
Dichlorodifluoromethane	ND	520	ug/kg
1,1-Dichloroethane	ND	260	ug/kg
1,2-Dichloroethane	ND	260	ug/kg
1,1-Dichloroethene	ND	260	ug/kg
cis-1,2-Dichloroethene	ND	260	ug/kg
trans-1,2-Dichloroethene	ND	260	ug/kg
1,2-Dichloropropane	ND	260	ug/kg
1,3-Dichloropropane	ND	260	ug/kg
2,2-Dichloropropane	ND	260	ug/kg
1,1-Dichloropropene	ND	260	ug/kg
1,4-Dioxane	ND	13000	ug/kg
Ethylbenzene	ND	260	ug/kg
Trichlorofluoromethane	ND	520	ug/kg
Hexachlorobutadiene	ND	260	ug/kg
Isopropylbenzene	ND	260	ug/kg
Methylene chloride	ND	260	ug/kg
Naphthalene	ND	260	ug/kg
Styrene	ND	260	ug/kg
1,1,1,2-Tetrachloroethane	ND	260	ug/kg
1,1,2,2-Tetrachloroethane	ND	260	ug/kg
Tetrachloroethene	ND	260	ug/kg
Toluene	ND	260	ug/kg
1,2,4-Trichloro-benzene	ND	260	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD9 (9)

GC/MS Volatiles

Lot-Sample #...: A5D150281-004 **Work Order #...:** G8GWP1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	260	ug/kg
1,1,2-Trichloroethane	ND	260	ug/kg
Trichloroethene	**1000**	**260**	**ug/kg**
1,2,3-Trichloropropane	ND	260	ug/kg
Vinyl chloride	ND	260	ug/kg
Xylenes (total)	ND	260	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(59 - 138)
1,2-Dichloroethane-d4	86	(61 - 130)
Toluene-d8	78	(60 - 143)
4-Bromofluorobenzene	61	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD9 (7)

GC/MS Volatiles

Lot-Sample #...: A5D150281-005	**Work Order #...:** G8GWT1AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 20:00	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/19/05		
Prep Batch #...: 5110044			
Dilution Factor: 0.9	**Initial Wgt/Vol:** 5.55 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 15	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	260	ug/kg
Bromodichloromethane	ND	260	ug/kg
Bromoform	ND	260	ug/kg
Bromomethane	ND	530	ug/kg
Carbon tetrachloride	ND	260	ug/kg
Chlorobenzene	ND	260	ug/kg
Chlorodibromomethane	ND	260	ug/kg
Chloroethane	ND	530	ug/kg
Chloroform	ND	260	ug/kg
Chloromethane	ND	530	ug/kg
Dibromomethane	ND	260	ug/kg
1,2-Dichlorobenzene	ND	260	ug/kg
1,3-Dichlorobenzene	ND	260	ug/kg
1,4-Dichlorobenzene	ND	260	ug/kg
Dichlorodifluoromethane	ND	530	ug/kg
1,1-Dichloroethane	ND	260	ug/kg
1,2-Dichloroethane	ND	260	ug/kg
1,1-Dichloroethene	ND	260	ug/kg
cis-1,2-Dichloroethene	ND	260	ug/kg
trans-1,2-Dichloroethene	ND	260	ug/kg
1,2-Dichloropropane	ND	260	ug/kg
1,3-Dichloropropane	ND	260	ug/kg
2,2-Dichloropropane	ND	260	ug/kg
1,1-Dichloropropene	ND	260	ug/kg
1,4-Dioxane	ND	13000	ug/kg
Ethylbenzene	ND	260	ug/kg
Trichlorofluoromethane	ND	530	ug/kg
Hexachlorobutadiene	ND	260	ug/kg
Isopropylbenzene	ND	260	ug/kg
Methylene chloride	ND	260	ug/kg
Naphthalene	ND	260	ug/kg
Styrene	ND	260	ug/kg
1,1,1,2-Tetrachloroethane	ND	260	ug/kg
1,1,2,2-Tetrachloroethane	ND	260	ug/kg
Tetrachloroethene	ND	260	ug/kg
Toluene	ND	260	ug/kg
1,2,4-Trichloro-benzene	ND	260	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD9 (7)

GC/MS Volatiles

Lot-Sample #...: A5D150281-005 **Work Order #...:** G8GWT1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	260	ug/kg
1,1,2-Trichloroethane	ND	260	ug/kg
Trichloroethene	**780**	**260**	**ug/kg**
1,2,3-Trichloropropane	ND	260	ug/kg
Vinyl chloride	ND	260	ug/kg
Xylenes (total)	ND	260	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	76	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	75	(60 - 143)
4-Bromofluorobenzene	60	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (3)

GC/MS Volatiles

Lot-Sample #...: A5D150281-006	**Work Order #...:** G8GWV1AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 20:45	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/19/05		
Prep Batch #...: 5110044			
Dilution Factor: 0.98	**Initial Wgt/Vol:** 5.11 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 15	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	290	ug/kg
Bromodichloromethane	ND	290	ug/kg
Bromoform	ND	290	ug/kg
Bromomethane	ND	580	ug/kg
Carbon tetrachloride	ND	290	ug/kg
Chlorobenzene	ND	290	ug/kg
Chlorodibromomethane	ND	290	ug/kg
Chloroethane	ND	580	ug/kg
Chloroform	ND	290	ug/kg
Chloromethane	ND	580	ug/kg
Dibromomethane	ND	290	ug/kg
1,2-Dichlorobenzene	ND	290	ug/kg
1,3-Dichlorobenzene	ND	290	ug/kg
1,4-Dichlorobenzene	ND	290	ug/kg
Dichlorodifluoromethane	ND	580	ug/kg
1,1-Dichloroethane	ND	290	ug/kg
1,2-Dichloroethane	ND	290	ug/kg
1,1-Dichloroethene	ND	290	ug/kg
cis-1,2-Dichloroethene	**380**	**290**	**ug/kg**
trans-1,2-Dichloroethene	ND	290	ug/kg
1,2-Dichloropropane	ND	290	ug/kg
1,3-Dichloropropane	ND	290	ug/kg
2,2-Dichloropropane	ND	290	ug/kg
1,1-Dichloropropene	ND	290	ug/kg
1,4-Dioxane	ND	14000	ug/kg
Ethylbenzene	ND	290	ug/kg
Trichlorofluoromethane	ND	580	ug/kg
Hexachlorobutadiene	ND	290	ug/kg
Isopropylbenzene	ND	290	ug/kg
Methylene chloride	ND	290	ug/kg
Naphthalene	ND	290	ug/kg
Styrene	ND	290	ug/kg
1,1,1,2-Tetrachloroethane	ND	290	ug/kg
1,1,2,2-Tetrachloroethane	ND	290	ug/kg
Tetrachloroethene	ND	290	ug/kg
Toluene	ND	290	ug/kg
1,2,4-Trichloro-benzene	ND	290	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (3)

GC/MS Volatiles

Lot-Sample #...: A5D150281-006 **Work Order #...:** G8GWV1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	290	ug/kg
1,1,2-Trichloroethane	ND	290	ug/kg
Trichloroethene	**1800**	**290**	**ug/kg**
1,2,3-Trichloropropane	ND	290	ug/kg
Vinyl chloride	ND	290	ug/kg
Xylenes (total)	ND	290	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	76	(60 - 143)
4-Bromofluorobenzene	60	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (9)

GC/MS Volatiles

Lot-Sample #...: A5D150281-007	**Work Order #...:** G8GWW1AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 20:50	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/19/05		
Prep Batch #...: 5110044			
Dilution Factor: 1	**Initial Wgt/Vol:** 5.02 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 14	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	290	ug/kg
Bromodichloromethane	ND	290	ug/kg
Bromoform	ND	290	ug/kg
Bromomethane	ND	580	ug/kg
Carbon tetrachloride	ND	290	ug/kg
Chlorobenzene	ND	290	ug/kg
Chlorodibromomethane	ND	290	ug/kg
Chloroethane	ND	580	ug/kg
Chloroform	ND	290	ug/kg
Chloromethane	ND	580	ug/kg
Dibromomethane	ND	290	ug/kg
1,2-Dichlorobenzene	ND	290	ug/kg
1,3-Dichlorobenzene	ND	290	ug/kg
1,4-Dichlorobenzene	ND	290	ug/kg
Dichlorodifluoromethane	ND	580	ug/kg
1,1-Dichloroethane	ND	290	ug/kg
1,2-Dichloroethane	ND	290	ug/kg
1,1-Dichloroethene	ND	290	ug/kg
cis-1,2-Dichloroethene	**300**	**290**	**ug/kg**
trans-1,2-Dichloroethene	ND	290	ug/kg
1,2-Dichloropropane	ND	290	ug/kg
1,3-Dichloropropane	ND	290	ug/kg
2,2-Dichloropropane	ND	290	ug/kg
1,1-Dichloropropene	ND	290	ug/kg
1,4-Dioxane	ND	15000	ug/kg
Ethylbenzene	ND	290	ug/kg
Trichlorofluoromethane	ND	580	ug/kg
Hexachlorobutadiene	ND	290	ug/kg
Isopropylbenzene	ND	290	ug/kg
Methylene chloride	ND	290	ug/kg
Naphthalene	ND	290	ug/kg
Styrene	ND	290	ug/kg
1,1,1,2-Tetrachloroethane	ND	290	ug/kg
1,1,2,2-Tetrachloroethane	ND	290	ug/kg
Tetrachloroethene	ND	290	ug/kg
Toluene	ND	290	ug/kg
1,2,4-Trichloro-benzene	ND	290	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (9)

GC/MS Volatiles

Lot-Sample #...: A5D150281-007 **Work Order #...:** G8GWW1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	290	ug/kg
1,1,2-Trichloroethane	ND	290	ug/kg
Trichloroethene	**1800**	**290**	**ug/kg**
1,2,3-Trichloropropane	ND	290	ug/kg
Vinyl chloride	ND	290	ug/kg
Xylenes (total)	ND	290	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
Toluene-d8	77	(60 - 143)
4-Bromofluorobenzene	59	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (13)

GC/MS Volatiles

Lot-Sample #...: A5D150281-008	**Work Order #...:** G8GW01AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 20:55	**Date Received..:** 04/15/05		
Prep Date.....: 04/18/05	**Analysis Date..:** 04/18/05		
Prep Batch #...: 5110163			
Dilution Factor: 1.03	**Initial Wgt/Vol:** 5 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 13	**Analyst ID.....:** 402279	**Instrument ID..:** UX8	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.9	ug/kg
Bromodichloromethane	ND	5.9	ug/kg
Bromoform	ND	5.9	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	5.9	ug/kg
Chlorobenzene	ND	5.9	ug/kg
Chlorodibromomethane	ND	5.9	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	**11**	**5.9**	**ug/kg**
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	5.9	ug/kg
1,2-Dichlorobenzene	ND	5.9	ug/kg
1,3-Dichlorobenzene	ND	5.9	ug/kg
1,4-Dichlorobenzene	ND	5.9	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.9	ug/kg
1,2-Dichloroethane	ND	5.9	ug/kg
cis-1,2-Dichloroethene	**150**	**5.9**	**ug/kg**
trans-1,2-Dichloroethene	ND	5.9	ug/kg
1,1-Dichloroethene	**11**	**5.9**	**ug/kg**
1,2-Dichloropropane	ND	5.9	ug/kg
1,3-Dichloropropane	ND	5.9	ug/kg
2,2-Dichloropropane	ND	5.9	ug/kg
1,1-Dichloropropene	ND	5.9	ug/kg
1,4-Dioxane	ND	300	ug/kg
Ethylbenzene	ND	5.9	ug/kg
Hexachlorobutadiene	ND	5.9	ug/kg
Isopropylbenzene	ND	5.9	ug/kg
Methylene chloride	ND	5.9	ug/kg
Naphthalene	ND	5.9	ug/kg
Styrene	ND	5.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg
Tetrachloroethene	ND	5.9	ug/kg
Toluene	ND	5.9	ug/kg
1,2,4-Trichloro-benzene	ND	5.9	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (13)

GC/MS Volatiles

Lot-Sample #...: A5D150281-008 **Work Order #...:** G8GW01AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**14**	**5.9**	**ug/kg**
1,1,2-Trichloroethane	ND	5.9	ug/kg
Trichloroethene	**810 E**	**5.9**	**ug/kg**
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.9	ug/kg
Vinyl chloride	ND	5.9	ug/kg
Xylenes (total)	ND	5.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	99	(60 - 143)
4-Bromofluorobenzene	78	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (13)

GC/MS Volatiles

Lot-Sample #...: A5D150281-008	**Work Order #...:** G8GW02AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 20:55	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/20/05		
Prep Batch #...: 5110044			
Dilution Factor: 0.97	**Initial Wgt/Vol:** 5.13 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 13	**Analyst ID.....:** 001819	**Instrument ID..:** UX9	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	280	ug/kg
Bromodichloromethane	ND	280	ug/kg
Bromoform	ND	280	ug/kg
Bromomethane	ND	560	ug/kg
Carbon tetrachloride	ND	280	ug/kg
Chlorobenzene	ND	280	ug/kg
Chlorodibromomethane	ND	280	ug/kg
Chloroethane	ND	560	ug/kg
Chloroform	ND	280	ug/kg
Chloromethane	ND	560	ug/kg
Dibromomethane	ND	280	ug/kg
1,2-Dichlorobenzene	ND	280	ug/kg
1,3-Dichlorobenzene	ND	280	ug/kg
1,4-Dichlorobenzene	ND	280	ug/kg
Dichlorodifluoromethane	ND	560	ug/kg
1,1-Dichloroethane	ND	280	ug/kg
1,2-Dichloroethane	ND	280	ug/kg
1,1-Dichloroethene	ND	280	ug/kg
cis-1,2-Dichloroethene	ND	280	ug/kg
trans-1,2-Dichloroethene	ND	280	ug/kg
1,2-Dichloropropane	ND	280	ug/kg
1,3-Dichloropropane	ND	280	ug/kg
2,2-Dichloropropane	ND	280	ug/kg
1,1-Dichloropropene	ND	280	ug/kg
1,4-Dioxane	ND	14000	ug/kg
Ethylbenzene	ND	280	ug/kg
Trichlorofluoromethane	ND	560	ug/kg
Hexachlorobutadiene	ND	280	ug/kg
Isopropylbenzene	ND	280	ug/kg
Methylene chloride	ND	280	ug/kg
Naphthalene	ND	280	ug/kg
Styrene	ND	280	ug/kg
1,1,1,2-Tetrachloroethane	ND	280	ug/kg
1,1,2,2-Tetrachloroethane	ND	280	ug/kg
Tetrachloroethene	ND	280	ug/kg
Toluene	ND	280	ug/kg
1,2,4-Trichloro-benzene	ND	280	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (13)

GC/MS Volatiles

Lot-Sample #...: A5D150281-008 **Work Order #...:** G8GW02AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	280	ug/kg
1,1,2-Trichloroethane	ND	280	ug/kg
Trichloroethene	ND	280	ug/kg
1,2,3-Trichloropropane	ND	280	ug/kg
Vinyl chloride	ND	280	ug/kg
Xylenes (total)	ND	280	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(59 - 138)
1,2-Dichloroethane-d4	75	(61 - 130)
Toluene-d8	82	(60 - 143)
4-Bromofluorobenzene	74	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (15)

GC/MS Volatiles

Lot-Sample #...: A5D150281-009	**Work Order #...:** G8GW11AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 21:00	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/20/05		
Prep Batch #...: 5110044			
Dilution Factor: 0.91	**Initial Wgt/Vol:** 5.47 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 13	**Analyst ID.....:** 001819	**Instrument ID..:** UX9	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	260	ug/kg
Bromodichloromethane	ND	260	ug/kg
Bromoform	ND	260	ug/kg
Bromomethane	ND	530	ug/kg
Carbon tetrachloride	ND	260	ug/kg
Chlorobenzene	ND	260	ug/kg
Chlorodibromomethane	ND	260	ug/kg
Chloroethane	ND	530	ug/kg
Chloroform	ND	260	ug/kg
Chloromethane	ND	530	ug/kg
Dibromomethane	ND	260	ug/kg
1,2-Dichlorobenzene	ND	260	ug/kg
1,3-Dichlorobenzene	ND	260	ug/kg
1,4-Dichlorobenzene	ND	260	ug/kg
Dichlorodifluoromethane	ND	530	ug/kg
1,1-Dichloroethane	ND	260	ug/kg
1,2-Dichloroethane	ND	260	ug/kg
1,1-Dichloroethene	ND	260	ug/kg
cis-1,2-Dichloroethene	ND	260	ug/kg
trans-1,2-Dichloroethene	ND	260	ug/kg
1,2-Dichloropropane	ND	260	ug/kg
1,3-Dichloropropane	ND	260	ug/kg
2,2-Dichloropropane	ND	260	ug/kg
1,1-Dichloropropene	ND	260	ug/kg
1,4-Dioxane	ND	13000	ug/kg
Ethylbenzene	ND	260	ug/kg
Trichlorofluoromethane	ND	530	ug/kg
Hexachlorobutadiene	ND	260	ug/kg
Isopropylbenzene	ND	260	ug/kg
Methylene chloride	ND	260	ug/kg
Naphthalene	ND	260	ug/kg
Styrene	ND	260	ug/kg
1,1,1,2-Tetrachloroethane	ND	260	ug/kg
1,1,2,2-Tetrachloroethane	ND	260	ug/kg
Tetrachloroethene	ND	260	ug/kg
Toluene	ND	260	ug/kg
1,2,4-Trichloro-benzene	ND	260	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (15)

GC/MS Volatiles

Lot-Sample #...: A5D150281-009 **Work Order #...:** G8GW11AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	260	ug/kg
1,1,2-Trichloroethane	ND	260	ug/kg
Trichloroethene	**830**	**260**	**ug/kg**
1,2,3-Trichloropropane	ND	260	ug/kg
Vinyl chloride	ND	260	ug/kg
Xylenes (total)	ND	260	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	79	(59 - 138)
1,2-Dichloroethane-d4	73	(61 - 130)
Toluene-d8	77	(60 - 143)
4-Bromofluorobenzene	71	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (17)

GC/MS Volatiles

Lot-Sample #...:	A5D150281-010	**Work Order #...:**	G8GW21AC	**Matrix.....:**	SO
Date Sampled...:	04/13/05 21:05	**Date Received..:**	04/15/05		
Prep Date.....:	04/18/05	**Analysis Date..:**	04/18/05		
Prep Batch #...:	5110163				
Dilution Factor:	0.93	**Initial Wgt/Vol:**	5 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	13	**Analyst ID.....:**	402279	**Instrument ID..:**	UX8
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.3	ug/kg
Bromodichloromethane	ND	5.3	ug/kg
Bromoform	ND	5.3	ug/kg
Bromomethane	ND	11	ug/kg
Carbon tetrachloride	ND	5.3	ug/kg
Chlorobenzene	ND	5.3	ug/kg
Chlorodibromomethane	ND	5.3	ug/kg
Chloroethane	ND	11	ug/kg
Chloroform	ND	5.3	ug/kg
Chloromethane	ND	11	ug/kg
Dibromomethane	ND	5.3	ug/kg
1,2-Dichlorobenzene	ND	5.3	ug/kg
1,3-Dichlorobenzene	ND	5.3	ug/kg
1,4-Dichlorobenzene	ND	5.3	ug/kg
Dichlorodifluoromethane	ND	11	ug/kg
1,1-Dichloroethane	ND	5.3	ug/kg
1,2-Dichloroethane	ND	5.3	ug/kg
cis-1,2-Dichloroethene	**41**	**5.3**	**ug/kg**
trans-1,2-Dichloroethene	ND	5.3	ug/kg
1,1-Dichloroethene	**6.1**	**5.3**	**ug/kg**
1,2-Dichloropropane	ND	5.3	ug/kg
1,3-Dichloropropane	ND	5.3	ug/kg
2,2-Dichloropropane	ND	5.3	ug/kg
1,1-Dichloropropene	ND	5.3	ug/kg
1,4-Dioxane	ND	270	ug/kg
Ethylbenzene	ND	5.3	ug/kg
Hexachlorobutadiene	ND	5.3	ug/kg
Isopropylbenzene	ND	5.3	ug/kg
Methylene chloride	ND	5.3	ug/kg
Naphthalene	ND	5.3	ug/kg
Styrene	ND	5.3	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.3	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.3	ug/kg
Tetrachloroethene	ND	5.3	ug/kg
Toluene	ND	5.3	ug/kg
1,2,4-Trichloro-benzene	ND	5.3	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (17)

GC/MS Volatiles

Lot-Sample #...: A5D150281-010 **Work Order #...:** G8GW21AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**13**	**5.3**	**ug/kg**
1,1,2-Trichloroethane	ND	5.3	ug/kg
Trichloroethene	**340 E**	**5.3**	**ug/kg**
Trichlorofluoromethane	ND	11	ug/kg
1,2,3-Trichloropropane	ND	5.3	ug/kg
Vinyl chloride	ND	5.3	ug/kg
Xylenes (total)	ND	5.3	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	99	(60 - 143)
4-Bromofluorobenzene	77	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (17)

GC/MS Volatiles

Lot-Sample #...:	A5D150281-010	**Work Order #...:**	G8GW22AC	**Matrix.....:**	SO
Date Sampled...:	04/13/05 21:05	**Date Received..:**	04/15/05		
Prep Date.....:	04/15/05	**Analysis Date..:**	04/20/05		
Prep Batch #...:	5110044				
Dilution Factor:	0.95	**Initial Wgt/Vol:**	5.25 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	13	**Analyst ID.....:**	001819	**Instrument ID..:**	UX9
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	270	ug/kg
Bromodichloromethane	ND	270	ug/kg
Bromoform	ND	270	ug/kg
Bromomethane	ND	550	ug/kg
Carbon tetrachloride	ND	270	ug/kg
Chlorobenzene	ND	270	ug/kg
Chlorodibromomethane	ND	270	ug/kg
Chloroethane	ND	550	ug/kg
Chloroform	ND	270	ug/kg
Chloromethane	ND	550	ug/kg
Dibromomethane	ND	270	ug/kg
1,2-Dichlorobenzene	ND	270	ug/kg
1,3-Dichlorobenzene	ND	270	ug/kg
1,4-Dichlorobenzene	ND	270	ug/kg
Dichlorodifluoromethane	ND	550	ug/kg
1,1-Dichloroethane	ND	270	ug/kg
1,2-Dichloroethane	ND	270	ug/kg
1,1-Dichloroethene	ND	270	ug/kg
cis-1,2-Dichloroethene	ND	270	ug/kg
trans-1,2-Dichloroethene	ND	270	ug/kg
1,2-Dichloropropane	ND	270	ug/kg
1,3-Dichloropropane	ND	270	ug/kg
2,2-Dichloropropane	ND	270	ug/kg
1,1-Dichloropropene	ND	270	ug/kg
1,4-Dioxane	ND	14000	ug/kg
Ethylbenzene	ND	270	ug/kg
Trichlorofluoromethane	ND	550	ug/kg
Hexachlorobutadiene	ND	270	ug/kg
Isopropylbenzene	ND	270	ug/kg
Methylene chloride	ND	270	ug/kg
Naphthalene	ND	270	ug/kg
Styrene	ND	270	ug/kg
1,1,1,2-Tetrachloroethane	ND	270	ug/kg
1,1,2,2-Tetrachloroethane	ND	270	ug/kg
Tetrachloroethene	ND	270	ug/kg
Toluene	ND	270	ug/kg
1,2,4-Trichloro-benzene	ND	270	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (17)

GC/MS Volatiles

Lot-Sample #...: A5D150281-010 **Work Order #...:** G8GW22AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	270	ug/kg
1,1,2-Trichloroethane	ND	270	ug/kg
Trichloroethene	ND	270	ug/kg
1,2,3-Trichloropropane	ND	270	ug/kg
Vinyl chloride	ND	270	ug/kg
Xylenes (total)	ND	270	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(59 - 138)
1,2-Dichloroethane-d4	74	(61 - 130)
Toluene-d8	82	(60 - 143)
4-Bromofluorobenzene	72	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD11 (4)

GC/MS Volatiles

Lot-Sample #...: A5D150281-011	**Work Order #...:** G8GW31AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 22:35	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/20/05		
Prep Batch #...: 5110044			
Dilution Factor: 0.96	**Initial Wgt/Vol:** 5.22 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 15	**Analyst ID.....:** 001819	**Instrument ID..:** UX9	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	280	ug/kg
Bromodichloromethane	ND	280	ug/kg
Bromoform	ND	280	ug/kg
Bromomethane	ND	570	ug/kg
Carbon tetrachloride	ND	280	ug/kg
Chlorobenzene	ND	280	ug/kg
Chlorodibromomethane	ND	280	ug/kg
Chloroethane	ND	570	ug/kg
Chloroform	ND	280	ug/kg
Chloromethane	ND	570	ug/kg
Dibromomethane	ND	280	ug/kg
1,2-Dichlorobenzene	ND	280	ug/kg
1,3-Dichlorobenzene	ND	280	ug/kg
1,4-Dichlorobenzene	ND	280	ug/kg
Dichlorodifluoromethane	ND	570	ug/kg
1,1-Dichloroethane	ND	280	ug/kg
1,2-Dichloroethane	ND	280	ug/kg
1,1-Dichloroethene	ND	280	ug/kg
cis-1,2-Dichloroethene	ND	280	ug/kg
trans-1,2-Dichloroethene	ND	280	ug/kg
1,2-Dichloropropane	ND	280	ug/kg
1,3-Dichloropropane	ND	280	ug/kg
2,2-Dichloropropane	ND	280	ug/kg
1,1-Dichloropropene	ND	280	ug/kg
1,4-Dioxane	ND	14000	ug/kg
Ethylbenzene	ND	280	ug/kg
Trichlorofluoromethane	ND	570	ug/kg
Hexachlorobutadiene	ND	280	ug/kg
Isopropylbenzene	ND	280	ug/kg
Methylene chloride	ND	280	ug/kg
Naphthalene	ND	280	ug/kg
Styrene	ND	280	ug/kg
1,1,1,2-Tetrachloroethane	ND	280	ug/kg
1,1,2,2-Tetrachloroethane	ND	280	ug/kg
Tetrachloroethene	ND	280	ug/kg
Toluene	ND	280	ug/kg
1,2,4-Trichloro-benzene	ND	280	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD11 (4)

GC/MS Volatiles

Lot-Sample #...: A5D150281-011 **Work Order #...:** G8GW31AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	280	ug/kg
1,1,2-Trichloroethane	ND	280	ug/kg
Trichloroethene	**1700**	**280**	**ug/kg**
1,2,3-Trichloropropane	ND	280	ug/kg
Vinyl chloride	ND	280	ug/kg
Xylenes (total)	ND	280	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(59 - 138)
1,2-Dichloroethane-d4	76	(61 - 130)
Toluene-d8	83	(60 - 143)
4-Bromofluorobenzene	75	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD11 (6)

GC/MS Volatiles

Lot-Sample #...: A5D150281-012	**Work Order #...:** G8GW41AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 22:40	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/20/05		
Prep Batch #...: 5110044			
Dilution Factor: 1.21	**Initial Wgt/Vol:** 4.14 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 16	**Analyst ID.....:** 001819	**Instrument ID..:** UX9	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	360	ug/kg
Bromodichloromethane	ND	360	ug/kg
Bromoform	ND	360	ug/kg
Bromomethane	ND	720	ug/kg
Carbon tetrachloride	ND	360	ug/kg
Chlorobenzene	ND	360	ug/kg
Chlorodibromomethane	ND	360	ug/kg
Chloroethane	ND	720	ug/kg
Chloroform	ND	360	ug/kg
Chloromethane	ND	720	ug/kg
Dibromomethane	ND	360	ug/kg
1,2-Dichlorobenzene	ND	360	ug/kg
1,3-Dichlorobenzene	ND	360	ug/kg
1,4-Dichlorobenzene	ND	360	ug/kg
Dichlorodifluoromethane	ND	720	ug/kg
1,1-Dichloroethane	ND	360	ug/kg
1,2-Dichloroethane	ND	360	ug/kg
1,1-Dichloroethene	ND	360	ug/kg
cis-1,2-Dichloroethene	ND	360	ug/kg
trans-1,2-Dichloroethene	ND	360	ug/kg
1,2-Dichloropropane	ND	360	ug/kg
1,3-Dichloropropane	ND	360	ug/kg
2,2-Dichloropropane	ND	360	ug/kg
1,1-Dichloropropene	ND	360	ug/kg
1,4-Dioxane	ND	18000	ug/kg
Ethylbenzene	ND	360	ug/kg
Trichlorofluoromethane	ND	720	ug/kg
Hexachlorobutadiene	ND	360	ug/kg
Isopropylbenzene	ND	360	ug/kg
Methylene chloride	ND	360	ug/kg
Naphthalene	ND	360	ug/kg
Styrene	ND	360	ug/kg
1,1,1,2-Tetrachloroethane	ND	360	ug/kg
1,1,2,2-Tetrachloroethane	ND	360	ug/kg
Tetrachloroethene	ND	360	ug/kg
Toluene	ND	360	ug/kg
1,2,4-Trichloro-benzene	ND	360	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD11 (6)

GC/MS Volatiles

Lot-Sample #...: A5D150281-012 **Work Order #...:** G8GW41AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	360	ug/kg
1,1,2-Trichloroethane	ND	360	ug/kg
Trichloroethene	**730**	**360**	**ug/kg**
1,2,3-Trichloropropane	ND	360	ug/kg
Vinyl chloride	ND	360	ug/kg
Xylenes (total)	ND	360	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(59 - 138)
1,2-Dichloroethane-d4	74	(61 - 130)
Toluene-d8	80	(60 - 143)
4-Bromofluorobenzene	73	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD12 (9)

GC/MS Volatiles

Lot-Sample #...:	A5D150281-013	**Work Order #...:**	G8GW51AC	**Matrix.....:**	SO
Date Sampled...:	04/13/05 23:40	**Date Received..:**	04/15/05		
Prep Date.....:	04/18/05	**Analysis Date..:**	04/18/05		
Prep Batch #...:	5110163				
Dilution Factor:	0.86	**Initial Wgt/Vol:**	5 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	15	**Analyst ID.....:**	402279	**Instrument ID..:**	UX8
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/kg
Bromodichloromethane	ND	5.0	ug/kg
Bromoform	ND	5.0	ug/kg
Bromomethane	ND	10	ug/kg
Carbon tetrachloride	ND	5.0	ug/kg
Chlorobenzene	ND	5.0	ug/kg
Chlorodibromomethane	ND	5.0	ug/kg
Chloroethane	ND	10	ug/kg
Chloroform	ND	5.0	ug/kg
Chloromethane	ND	10	ug/kg
Dibromomethane	ND	5.0	ug/kg
1,2-Dichlorobenzene	ND	5.0	ug/kg
1,3-Dichlorobenzene	ND	5.0	ug/kg
1,4-Dichlorobenzene	ND	5.0	ug/kg
Dichlorodifluoromethane	ND	10	ug/kg
1,1-Dichloroethane	ND	5.0	ug/kg
1,2-Dichloroethane	ND	5.0	ug/kg
cis-1,2-Dichloroethene	**18**	**5.0**	**ug/kg**
trans-1,2-Dichloroethene	ND	5.0	ug/kg
1,1-Dichloroethene	ND	5.0	ug/kg
1,2-Dichloropropane	ND	5.0	ug/kg
1,3-Dichloropropane	ND	5.0	ug/kg
2,2-Dichloropropane	ND	5.0	ug/kg
1,1-Dichloropropene	ND	5.0	ug/kg
1,4-Dioxane	ND	250	ug/kg
Ethylbenzene	ND	5.0	ug/kg
Hexachlorobutadiene	ND	5.0	ug/kg
Isopropylbenzene	ND	5.0	ug/kg
Methylene chloride	ND	5.0	ug/kg
Naphthalene	ND	5.0	ug/kg
Styrene	ND	5.0	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg
Tetrachloroethene	ND	5.0	ug/kg
Toluene	ND	5.0	ug/kg
1,2,4-Trichloro-benzene	ND	5.0	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD12 (9)

GC/MS Volatiles

Lot-Sample #...: A5D150281-013 **Work Order #...:** G8GW51AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**6.1**	**5.0**	**ug/kg**
1,1,2-Trichloroethane	ND	5.0	ug/kg
Trichloroethene	**380 E**	**5.0**	**ug/kg**
Trichlorofluoromethane	ND	10	ug/kg
1,2,3-Trichloropropane	ND	5.0	ug/kg
Vinyl chloride	ND	5.0	ug/kg
Xylenes (total)	ND	5.0	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(59 - 138)
1,2-Dichloroethane-d4	97	(61 - 130)
Toluene-d8	101	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD12 (9)

GC/MS Volatiles

Lot-Sample #...: A5D150281-013	**Work Order #...:** G8GW52AC	**Matrix.....:** SO	
Date Sampled...: 04/13/05 23:40	**Date Received..:** 04/15/05		
Prep Date.....: 04/15/05	**Analysis Date..:** 04/20/05		
Prep Batch #...: 5110044			
Dilution Factor: 1.06	**Initial Wgt/Vol:** 4.71 g	**Final Wgt/Vol..:** 5 mL	
% Moisture.....: 15	**Analyst ID.....:** 001819	**Instrument ID..:** UX9	
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	310	ug/kg
Bromodichloromethane	ND	310	ug/kg
Bromoform	ND	310	ug/kg
Bromomethane	ND	620	ug/kg
Carbon tetrachloride	ND	310	ug/kg
Chlorobenzene	ND	310	ug/kg
Chlorodibromomethane	ND	310	ug/kg
Chloroethane	ND	620	ug/kg
Chloroform	ND	310	ug/kg
Chloromethane	ND	620	ug/kg
Dibromomethane	ND	310	ug/kg
1,2-Dichlorobenzene	ND	310	ug/kg
1,3-Dichlorobenzene	ND	310	ug/kg
1,4-Dichlorobenzene	ND	310	ug/kg
Dichlorodifluoromethane	ND	620	ug/kg
1,1-Dichloroethane	ND	310	ug/kg
1,2-Dichloroethane	ND	310	ug/kg
1,1-Dichloroethene	ND	310	ug/kg
cis-1,2-Dichloroethene	ND	310	ug/kg
trans-1,2-Dichloroethene	ND	310	ug/kg
1,2-Dichloropropane	ND	310	ug/kg
1,3-Dichloropropane	ND	310	ug/kg
2,2-Dichloropropane	ND	310	ug/kg
1,1-Dichloropropene	ND	310	ug/kg
1,4-Dioxane	ND	16000	ug/kg
Ethylbenzene	ND	310	ug/kg
Trichlorofluoromethane	ND	620	ug/kg
Hexachlorobutadiene	ND	310	ug/kg
Isopropylbenzene	ND	310	ug/kg
Methylene chloride	ND	310	ug/kg
Naphthalene	ND	310	ug/kg
Styrene	ND	310	ug/kg
1,1,1,2-Tetrachloroethane	ND	310	ug/kg
1,1,2,2-Tetrachloroethane	ND	310	ug/kg
Tetrachloroethene	ND	310	ug/kg
Toluene	ND	310	ug/kg
1,2,4-Trichloro-benzene	ND	310	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD12 (9)

GC/MS Volatiles

Lot-Sample #...: A5D150281-013 **Work Order #...:** G8GW52AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	310	ug/kg
1,1,2-Trichloroethane	ND	310	ug/kg
Trichloroethene	ND	310	ug/kg
1,2,3-Trichloropropane	ND	310	ug/kg
Vinyl chloride	ND	310	ug/kg
Xylenes (total)	ND	310	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	77	(59 - 138)
1,2-Dichloroethane-d4	73	(61 - 130)
Toluene-d8	77	(60 - 143)
4-Bromofluorobenzene	71	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD12 (10)

GC/MS Volatiles

Lot-Sample #...: A5D150281-014	**Work Order #...:** G8GXE1AC		**Matrix.....:** SO
Date Sampled...: 04/13/05 23:45	**Date Received..:** 04/15/05		
Prep Date.....: 04/18/05	**Analysis Date..:** 04/18/05		
Prep Batch #...: 5110163			
Dilution Factor: 1	**Initial Wgt/Vol:** 5 g		**Final Wgt/Vol..:** 5 mL
% Moisture.....: 15	**Analyst ID.....:** 402279		**Instrument ID..:** UX8
	Method.....: SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.9	ug/kg
Bromodichloromethane	ND	5.9	ug/kg
Bromoform	ND	5.9	ug/kg
Bromomethane	ND	12	ug/kg
Carbon tetrachloride	ND	5.9	ug/kg
Chlorobenzene	ND	5.9	ug/kg
Chlorodibromomethane	ND	5.9	ug/kg
Chloroethane	ND	12	ug/kg
Chloroform	ND	5.9	ug/kg
Chloromethane	ND	12	ug/kg
Dibromomethane	ND	5.9	ug/kg
1,2-Dichlorobenzene	ND	5.9	ug/kg
1,3-Dichlorobenzene	ND	5.9	ug/kg
1,4-Dichlorobenzene	ND	5.9	ug/kg
Dichlorodifluoromethane	ND	12	ug/kg
1,1-Dichloroethane	ND	5.9	ug/kg
1,2-Dichloroethane	ND	5.9	ug/kg
cis-1,2-Dichloroethene	**7.7**	**5.9**	**ug/kg**
trans-1,2-Dichloroethene	ND	5.9	ug/kg
1,1-Dichloroethene	ND	5.9	ug/kg
1,2-Dichloropropane	ND	5.9	ug/kg
1,3-Dichloropropane	ND	5.9	ug/kg
2,2-Dichloropropane	ND	5.9	ug/kg
1,1-Dichloropropene	ND	5.9	ug/kg
1,4-Dioxane	ND	290	ug/kg
Ethylbenzene	ND	5.9	ug/kg
Hexachlorobutadiene	ND	5.9	ug/kg
Isopropylbenzene	ND	5.9	ug/kg
Methylene chloride	ND	5.9	ug/kg
Naphthalene	ND	5.9	ug/kg
Styrene	ND	5.9	ug/kg
1,1,1,2-Tetrachloroethane	ND	5.9	ug/kg
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg
Tetrachloroethene	ND	5.9	ug/kg
Toluene	ND	5.9	ug/kg
1,2,4-Trichloro-benzene	ND	5.9	ug/kg

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD12 (10)

GC/MS Volatiles

Lot-Sample #...: A5D150281-014 **Work Order #...:** G8GXE1AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	5.9	ug/kg
1,1,2-Trichloroethane	ND	5.9	ug/kg
Trichloroethene	**170**	**5.9**	**ug/kg**
Trichlorofluoromethane	ND	12	ug/kg
1,2,3-Trichloropropane	ND	5.9	ug/kg
Vinyl chloride	ND	5.9	ug/kg
Xylenes (total)	ND	5.9	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
1,2-Dichloroethane-d4	95	(61 - 130)
Toluene-d8	100	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANKS

GC/MS Volatiles

Lot-Sample #...: A5D150281-015	**Work Order #...:** G8GXG1AA	**Matrix.....:** WQ
Date Sampled...: 04/12/05	**Date Received..:** 04/15/05	
Prep Date.....: 04/20/05	**Analysis Date..:** 04/20/05	
Prep Batch #...: 5111094		
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001904	**Instrument ID..:** UX10	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANKS

GC/MS Volatiles

Lot-Sample #...: A5D150281-015 **Work Order #...:** G8GXG1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(73 - 122)
1,2-Dichloroethane-d4	108	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

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QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D150281
MB Lot-Sample #: A5D200000-044

Work Order #...: G8PE01AA

Prep Date.....: 04/15/05
Prep Batch #...: 5110044
Initial Wgt/Vol: 5 g
Analyst ID.....: 001819

Matrix.....: SOLID

Final Wgt/Vol..: 5 mL
Instrument ID..: UX9

Analysis Date..: 04/20/05
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	250	ug/kg	SW846 8260B
Bromodichloromethane	ND	250	ug/kg	SW846 8260B
Bromoform	ND	250	ug/kg	SW846 8260B
Bromomethane	ND	500	ug/kg	SW846 8260B
Carbon tetrachloride	ND	250	ug/kg	SW846 8260B
Chlorobenzene	ND	250	ug/kg	SW846 8260B
Chlorodibromomethane	ND	250	ug/kg	SW846 8260B
Chloroethane	ND	500	ug/kg	SW846 8260B
Chloroform	ND	250	ug/kg	SW846 8260B
Chloromethane	ND	500	ug/kg	SW846 8260B
Dibromomethane	ND	250	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	250	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	500	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	250	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	250	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	250	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	250	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	250	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	250	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	250	ug/kg	SW846 8260B
1,4-Dioxane	ND	12000	ug/kg	SW846 8260B
Ethylbenzene	ND	250	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	500	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	250	ug/kg	SW846 8260B
Isopropylbenzene	ND	250	ug/kg	SW846 8260B
Methylene chloride	ND	250	ug/kg	SW846 8260B
Naphthalene	ND	250	ug/kg	SW846 8260B
Styrene	ND	250	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	250	ug/kg	SW846 8260B
Tetrachloroethene	ND	250	ug/kg	SW846 8260B
Toluene	ND	250	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	250	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	250	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8PE01AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichloroethene	ND	250	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	250	ug/kg	SW846 8260B
Vinyl chloride	ND	250	ug/kg	SW846 8260B
Xylenes (total)	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	91	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D150281
MB Lot-Sample #: A5D200000-163

Work Order #...: G8PQ21AA

Matrix.....: SOLID

Prep Date.....: 04/18/05
Prep Batch #...: 5110163
Initial Wgt/Vol: 5 g
Analyst ID.....: 402279

Final Wgt/Vol..: 5 mL
Instrument ID..: UX8

Analysis Date..: 04/18/05
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Dibromomethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,4-Dioxane	ND	250	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Naphthalene	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8PQ21AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(59 - 138)
1,2-Dichloroethane-d4	90	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	81	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8TFA1AA **Matrix.....:** WATER
MB Lot-Sample #: A5D210000-094

Prep Date.....: 04/20/05 **Final Wgt/Vol..:** 5 mL
Analysis Date..: 04/20/05 **Prep Batch #...:** 5111094 **Instrument ID..:** UX10
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL
Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	5.0	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8TFA1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichlorofluoromethane	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
Xylenes (total)	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8PE01AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D200000-044 G8PE01AD-LCSD
Prep Date.....: 04/15/05 **Analysis Date..:** 04/20/05
Prep Batch #...: 5110044
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001819 **Instrument ID..:** UX9

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**100**	**(75 - 129)**			**SW846 8260B**
	97	**(75 - 129)**	**2.3**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(75 - 127)**			**SW846 8260B**
	95	**(75 - 127)**	**0.24**	**(0-22)**	**SW846 8260B**
1,1-Dichloroethene	**97**	**(55 - 142)**			**SW846 8260B**
	87	**(55 - 142)**	**11**	**(0-27)**	**SW846 8260B**
Toluene	**96**	**(71 - 130)**			**SW846 8260B**
	93	**(71 - 130)**	**2.8**	**(0-24)**	**SW846 8260B**
Trichloroethene	**108**	**(70 - 131)**			**SW846 8260B**
	104	**(70 - 131)**	**4.1**	**(0-23)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(59 - 138)
	101	(59 - 138)
1,2-Dichloroethane-d4	95	(61 - 130)
	94	(61 - 130)
Toluene-d8	96	(60 - 143)
	93	(60 - 143)
4-Bromofluorobenzene	91	(47 - 158)
	90	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8PE01AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D200000-044 G8PE01AD-LCSD
Prep Date.....: 04/15/05 **Analysis Date..:** 04/20/05
Prep Batch #...: 5110044
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001819 **Instrument ID..:** UX9

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**1000**	**1000**	**ug/kg**	**100**		**SW846 8260B**
	1000	**970**	**ug/kg**	**97**	**2.3**	**SW846 8260B**
Chlorobenzene	**1000**	**950**	**ug/kg**	**95**		**SW846 8260B**
	1000	**950**	**ug/kg**	**95**	**0.24**	**SW846 8260B**
1,1-Dichloroethene	**1000**	**970**	**ug/kg**	**97**		**SW846 8260B**
	1000	**870**	**ug/kg**	**87**	**11**	**SW846 8260B**
Toluene	**1000**	**960**	**ug/kg**	**96**		**SW846 8260B**
	1000	**930**	**ug/kg**	**93**	**2.8**	**SW846 8260B**
Trichloroethene	**1000**	**1100**	**ug/kg**	**108**		**SW846 8260B**
	1000	**1000**	**ug/kg**	**104**	**4.1**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(59 - 138)
	101	(59 - 138)
1,2-Dichloroethane-d4	95	(61 - 130)
	94	(61 - 130)
Toluene-d8	96	(60 - 143)
	93	(60 - 143)
4-Bromofluorobenzene	91	(47 - 158)
	90	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8PQ21AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D200000-163 G8PQ21AD-LCSD
Prep Date.....: 04/18/05 **Analysis Date..:** 04/18/05
Prep Batch #...: 5110163
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 402279 **Instrument ID..:** UX8

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**84**	**(55 - 142)**			**SW846 8260B**
	88	**(55 - 142)**	**4.3**	**(0-27)**	**SW846 8260B**
Trichloroethene	**87**	**(70 - 131)**			**SW846 8260B**
	94	**(70 - 131)**	**7.4**	**(0-23)**	**SW846 8260B**
Benzene	**86**	**(75 - 129)**			**SW846 8260B**
	91	**(75 - 129)**	**5.5**	**(0-20)**	**SW846 8260B**
Toluene	**83**	**(71 - 130)**			**SW846 8260B**
	86	**(71 - 130)**	**4.2**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**83**	**(75 - 127)**			**SW846 8260B**
	87	**(75 - 127)**	**5.2**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
	94	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
	91	(61 - 130)
Toluene-d8	99	(60 - 143)
	101	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)
	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8PQ21AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5D200000-163 G8PQ21AD-LCSD
Prep Date.....: 04/18/05 **Analysis Date..:** 04/18/05
Prep Batch #...: 5110163
Dilution Factor: 1 **Initial Wgt/Vol:** 5 g **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 402279 **Instrument ID..:** UX8

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	50	42	ug/kg	84		SW846 8260B
	50	44	ug/kg	88	4.3	SW846 8260B
Trichloroethene	50	43	ug/kg	87		SW846 8260B
	50	47	ug/kg	94	7.4	SW846 8260B
Benzene	50	43	ug/kg	86		SW846 8260B
	50	45	ug/kg	91	5.5	SW846 8260B
Toluene	50	41	ug/kg	83		SW846 8260B
	50	43	ug/kg	86	4.2	SW846 8260B
Chlorobenzene	50	41	ug/kg	83		SW846 8260B
	50	44	ug/kg	87	5.2	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(59 - 138)
	94	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
	91	(61 - 130)
Toluene-d8	99	(60 - 143)
	101	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)
	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8TFA1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5D210000-094 G8TFA1AD-LCSD
Prep Date.....: 04/20/05 **Analysis Date..:** 04/20/05
Prep Batch #...: 5111094
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001904 **Instrument ID..:** UX10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**92**	**(80 - 116)**			**SW846 8260B**
	94	**(80 - 116)**	**1.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	94	**(76 - 117)**	**2.2**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**91**	**(63 - 130)**			**SW846 8260B**
	85	**(63 - 130)**	**6.7**	**(0-20)**	**SW846 8260B**
Toluene	**101**	**(74 - 119)**			**SW846 8260B**
	99	**(74 - 119)**	**2.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**93**	**(75 - 122)**			**SW846 8260B**
	91	**(75 - 122)**	**2.4**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
	95	(61 - 128)
Toluene-d8	106	(76 - 110)
	107	(76 - 110)
4-Bromofluorobenzene	109	(74 - 116)
	112	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8TFA1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A5D210000-094 G8TFA1AD-LCSD
Prep Date.....: 04/20/05 **Analysis Date..:** 04/20/05
Prep Batch #...: 5111094
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001904 **Instrument ID..:** UX10

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**10**	**9.2**	**ug/L**	**92**		**SW846 8260B**
	10	**9.4**	**ug/L**	**94**	**1.6**	**SW846 8260B**
Chlorobenzene	**10**	**9.6**	**ug/L**	**96**		**SW846 8260B**
	10	**9.4**	**ug/L**	**94**	**2.2**	**SW846 8260B**
1,1-Dichloroethene	**10**	**9.1**	**ug/L**	**91**		**SW846 8260B**
	10	**8.5**	**ug/L**	**85**	**6.7**	**SW846 8260B**
Toluene	**10**	**10**	**ug/L**	**101**		**SW846 8260B**
	10	**9.9**	**ug/L**	**99**	**2.1**	**SW846 8260B**
Trichloroethene	**10**	**9.3**	**ug/L**	**93**		**SW846 8260B**
	10	**9.1**	**ug/L**	**91**	**2.4**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
	95	(61 - 128)
Toluene-d8	106	(76 - 110)
	107	(76 - 110)
4-Bromofluorobenzene	109	(74 - 116)
	112	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A5D150281	**Work Order #...:**	G8EC81AC-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	A5D140336-003		G8EC81AD-MSD		
Date Sampled...:	04/13/05 16:00	**Date Received..:**	04/14/05		
Prep Date.....:	04/20/05	**Analysis Date..:**	04/20/05		
Prep Batch #...:	5111094				
Dilution Factor:	25	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	001904	**Instrument ID..:**	UX10		

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**97**	**(78 - 118)**			**SW846 8260B**
	96	**(78 - 118)**	**1.9**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**98**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**0.48**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**106**	**(62 - 130)**			**SW846 8260B**
	100	**(62 - 130)**	**5.8**	**(0-20)**	**SW846 8260B**
Toluene	**103**	**(70 - 119)**			**SW846 8260B**
	100	**(70 - 119)**	**2.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**87**	**(62 - 130)**			**SW846 8260B**
	85	**(62 - 130)**	**1.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
	103	(61 - 128)
Toluene-d8	106	(76 - 110)
	106	(76 - 110)
4-Bromofluorobenzene	112	(74 - 116)
	112	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5D150281 **Work Order #...:** G8EC81AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A5D140336-003 G8EC81AD-MSD
Date Sampled...: 04/13/05 16:00 **Date Received..:** 04/14/05
Prep Date.....: 04/20/05 **Analysis Date..:** 04/20/05
Prep Batch #...: 5111094
Dilution Factor: 25 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001904 **Instrument ID..:** UX10

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	**ND**	**250**	**240**	**ug/L**	**97**		**SW846 8260B**
	ND	**250**	**240**	**ug/L**	**96**	**1.9**	**SW846 8260B**
Chlorobenzene	**ND**	**250**	**240**	**ug/L**	**98**		**SW846 8260B**
	ND	**250**	**240**	**ug/L**	**97**	**0.48**	**SW846 8260B**
1,1-Dichloroethene	**ND**	**250**	**260**	**ug/L**	**106**		**SW846 8260B**
	ND	**250**	**250**	**ug/L**	**100**	**5.8**	**SW846 8260B**
Toluene	**ND**	**250**	**260**	**ug/L**	**103**		**SW846 8260B**
	ND	**250**	**250**	**ug/L**	**100**	**2.6**	**SW846 8260B**
Trichloroethene	**41**	**250**	**260**	**ug/L**	**87**		**SW846 8260B**
	41	**250**	**250**	**ug/L**	**85**	**1.0**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
	103	(61 - 128)
Toluene-d8	106	(76 - 110)
	106	(76 - 110)
4-Bromofluorobenzene	112	(74 - 116)
	112	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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GENERAL CHEMISTRY DATA

MACTEC Engineering and Consulting Inc

Client Sample ID: KD7 (3)

General Chemistry

Lot-Sample #...: A5D150281-001 **Work Order #...:** G8GV9 **Matrix.....:** SO
Date Sampled...: 04/13/05 15:10 **Date Received..:** 04/15/05
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	**84.6**	**10.0**	**%**	**MCAWW 160.3 MOD**	**04/19-04/20/05**	**5109264**

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD8 (9)

General Chemistry

Lot-Sample #...: A5D150281-002 **Work Order #...:** G8GWM **Matrix.....:** SO
Date Sampled...: 04/13/05 16:00 **Date Received..:** 04/15/05
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	83.5	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD9 (10)

General Chemistry

Lot-Sample #...: A5D150281-003 **Work Order #...:** G8GWN **Matrix.....:** SO
Date Sampled...: 04/13/05 19:50 **Date Received..:** 04/15/05
% Moisture.....: 14

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	86.2	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD9 (9)

General Chemistry

Lot-Sample #...: A5D150281-004 **Work Order #...:** G8GWP **Matrix.....:** SO
Date Sampled...: 04/13/05 19:55 **Date Received..:** 04/15/05
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.4	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD9 (7)

General Chemistry

Lot-Sample #...: A5D150281-005 Work Order #...: G8GWT Matrix.....: SO
Date Sampled...: 04/13/05 20:00 Date Received..: 04/15/05
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.5	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (3)

General Chemistry

Lot-Sample #...: A5D150281-006 **Work Order #...:** G8GWV **Matrix.....:** SO
Date Sampled...: 04/13/05 20:45 **Date Received..:** 04/15/05
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.0	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (9)

General Chemistry

Lot-Sample #...: A5D150281-007 **Work Order #...:** G8GWW **Matrix.....:** SO
Date Sampled...: 04/13/05 20:50 **Date Received..:** 04/15/05
% Moisture.....: 14

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.8	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (13)

General Chemistry

Lot-Sample #...: A5D150281-008 **Work Order #...:** G8GW0 **Matrix.....:** SO
Date Sampled...: 04/13/05 20:55 **Date Received..:** 04/15/05
% Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	86.6	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (15)

General Chemistry

Lot-Sample #...: A5D150281-009 **Work Order #...:** G8GW1 **Matrix.....:** SO
Date Sampled...: 04/13/05 21:00 **Date Received..:** 04/15/05
% Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	86.6	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10 (17)

General Chemistry

Lot-Sample #...: A5D150281-010 **Work Order #...:** G8GW2 **Matrix.....:** SO
Date Sampled...: 04/13/05 21:05 **Date Received..:** 04/15/05
% Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	87.0	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD11 (4)

General Chemistry

Lot-Sample #...: A5D150281-011 **Work Order #...:** G8GW3 **Matrix.....:** SO
Date Sampled...: 04/13/05 22:35 **Date Received..:** 04/15/05
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	84.6	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD11 (6)

General Chemistry

Lot-Sample #...: A5D150281-012 **Work Order #...:** G8GW4 **Matrix.....:** SO
Date Sampled...: 04/13/05 22:40 **Date Received..:** 04/15/05
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	83.6	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD12 (9)

General Chemistry

Lot-Sample #...: A5D150281-013 **Work Order #...:** G8GW5 **Matrix.....:** SO
Date Sampled...: 04/13/05 23:40 **Date Received..:** 04/15/05
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.5	10.0	%	**MCAWW 160.3 MOD**	**04/19-04/20/05**	**5109264**

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

MACTEC Engineering and Consulting Inc

Client Sample ID: KD12 (10)

General Chemistry

Lot-Sample #...: A5D150281-014 **Work Order #...:** G8GXE **Matrix.....:** SO
Date Sampled...: 04/13/05 23:45 **Date Received..:** 04/15/05
% Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	85.2	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A5D150281 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: G8PQX1AA		MB Lot-Sample #:	A5D190000-264	
	ND	10.0	%	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1

Analyst ID.....: 006801 Instrument ID..: NO

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A5D150281 **Work Order #...:** G8GWV-SMP G8GWV-DUP **Matrix.....:** SO

Date Sampled...: 04/13/05 20:45 **Date Received..:** 04/15/05

% Moisture.....: 15

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A5D150281-006		
	85.0	85.5	%	0.61	(0-20)	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A5D150281 **Work Order #...:** G8JLN-SMP G8JLN-DUP **Matrix.....:** SOLID

Date Sampled...: 04/15/05 10:50 **Date Received..:** 04/16/05

% Moisture.....: 51

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A5D160175-004		
	49.0	51.1	%	4.1	(0-20)	MCAWW 160.3 MOD	04/19-04/20/05	5109264

Dilution Factor: 1 Analyst ID.....: 006801 Instrument ID..: NO INST

Chain of Custody Record

TRENT STL
Severn Trent Laboratories, Inc.

16

STL-4124 (0901)

Client: Mactec Engineering	Project Manager: Rhonda Quinn	Date: 4/13/05	Chain of Custody Number: 200880
Address: 3200 Town Point Dr	Telephone Number (Area Code)/Fax Number: 770 421 3516 / 770 421 3486	Lab Number:	Page 1 of 2
City: Kennesaw / State: GA / Zip Code: 30144	Site Contact: Rhonda Quinn	Lab Contact: Roger Tolin	
Project Name and Location (State): Thermo King - Louisville, GA	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: 5gram EnCore	25gram SPLP	Special Instructions/ Conditions of Receipt
KD7 (3)	4-13-05	1510				X	X						3	2	
KD8 (9)	4-13-05	1600				X	X						3	2	
KD9 (10)	4-13-05	1950				X	X						3	2	
KD9 (9)	4-13-05	1955				X	X						3	2	
KD9 (7)	4-13-05	2000				X	X						3	2	
KD10 (3)	4-13-05	2045				X	X						3	2	
KD10 (9)	4-13-05	2050				X	X						3	2	
KD10 (13)	4-13-05	2055				X	X						3	2	
KD10 (15)	4-13-05	2100				X	X						3	2	
KD10 (17)	4-13-05	2105				X	X						3	2	
KD11 (4)	4-13-05	2235				X	X						3	2	
KD11 (6)	4-13-05	2240				X	X						3	2	

2 00880

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☒ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify): Analyze total Size VOCs SPLP Freeze 25gram SPLP upon receipt w/hold

	Date	Time		Date	Time
1. Relinquished By: [signature]	4/14/05	1500	1. Received By: [signature]	4-16-05	9:42
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton

Chain of Custody Record

TRENT STL
Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: Mactec Engineering	Project Manager: Rhonda Quinn	Date: 4/13/05	Chain of Custody Number: 200878
Address: 3200 Town Point Dr	Telephone Number (Area Code)/Fax Number: 770 421 3516 770 4213486	Lab Number:	Page 2 of 2
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact: Rhonda Quinn; Lab Contact: Roger Toth		
Project Name and Location (State): Thermo King Louisville GA	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	5gm Encore	75gm SPLP	VOCs	Special Instructions/ Conditions of Receipt
KD12 (9)	4-13-05	2340				X	X						3	2		2 coolers
KD12 (10)	4-13-05	2345				X	X						3	2		
Trip Blanks	4-12-05	—		X						X					2	
Trip Blank	4-12-05	—		X						X					1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☒ 7 Days (total VOCs) ☐ 14 Days ☒ 21 Days (SPLP) ☐ Other _____

QC Requirements (Specify): Analyze total size VOCs - 5gm E Core; Freeze 25gm SPLP upon receipt & hold

	Date	Time		Date	Time
1. Relinquished By: Jaime Pin	4/14/05	15:00	1. Received By: John Donat	4-15-05	9:00
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton

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SAMPLE SUMMARY

A5D260113

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
G859K	001	Kd-3(4')	04/12/05	18:4
G8591	002	Kd-4(2')	04/12/05	19:2
G8599	003	Kd-4(11')	04/12/05	19:5
G86AD	004	Kd-5(3')	04/12/05	21:0
G86AE	005	KD7(3)	04/13/05	15:1
G86AH	006	KD8(9)	04/13/05	16:0
G86AK	007	KD9(7)	04/13/05	20:0
G86AM	008	KD10(3)	04/13/05	20:4
G86AN	009	KD10(15)	04/13/05	21:0
G86AP	010	KD11(4)	04/13/05	22:3
G86AQ	011	KD11(6)	04/13/05	22:4
G86AR	012	KD12(10)	04/13/05	23:4

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SEVERN TRENT STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

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www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 1200002050.403

THERMO KING-LOUISVILLE GA

Lot #: A5D260113

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

SEVERN TRENT LABORATORIES, INC.

Roger K. Toth
Project Manager

May 16, 2005

CASE NARRATIVE

A5D260113

The following report contains the analytical results for twelve solid samples submitted to STL North Canton by MACTEC Engineering & Consulting Inc. from the THERMO KING-LOUISVILLE GA Site, project number 1200002050.403. The samples were originally received April 14, 2005 and April 15, 2005, according to documented sample acceptance procedures. Further analysis was requested by the client on April 25, 2005.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on May 10, 2005. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Roger K. Toth, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

Result concentration exceeds the calibration range. Refer to the sample report pages for the affected compound(s) flagged with "E".

The Method Blank associated with batch 5125075 contained concentration of target analyte(s) above reportable levels and outside acceptance criteria. The data was reported per client's approval.

Two analyses were used to report the sample(s) Kd-3(4'), KD8 (9), KD10 (3), and KD11 (6) due to high analyte concentrations.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- *Common organic contaminants may be present at concentrations up to 5 times the reporting limits.* Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

EXECUTIVE SUMMARY - Detection Highlights

A5D260113

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Kd-3(4') 04/12/05 18:45 001				
1,4-Dioxane	13000	2000	ug/L	SW846 8260B
Chloroform	2.2 B	1.0	ug/L	SW846 8260B
1,4-Dioxane	16000 E	200	ug/L	SW846 8260B
Methylene chloride	1.6 B	1.0	ug/L	SW846 8260B
Naphthalene	1.5 B	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	3.6	1.0	ug/L	SW846 8260B
Trichloroethene	3.2	1.0	ug/L	SW846 8260B
Kd-4(2') 04/12/05 19:20 002				
Chloroform	2.4 B	1.0	ug/L	SW846 8260B
Methylene chloride	1.7 B	1.0	ug/L	SW846 8260B
Naphthalene	1.1 B	1.0	ug/L	SW846 8260B
Toluene	4.8	1.0	ug/L	SW846 8260B
Kd-4(11') 04/12/05 19:50 003				
Chloroform	2.5 B	1.0	ug/L	SW846 8260B
Methylene chloride	1.2 B	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	1.3	1.0	ug/L	SW846 8260B
Trichloroethene	2.5	1.0	ug/L	SW846 8260B
Kd-5(3') 04/12/05 21:00 004				
Chloroform	2.2 B	1.0	ug/L	SW846 8260B
1,4-Dioxane	520	200	ug/L	SW846 8260B
Methylene chloride	1.5 B	1.0	ug/L	SW846 8260B
Naphthalene	1.4 B	1.0	ug/L	SW846 8260B
Trichloroethene	1.1	1.0	ug/L	SW846 8260B
KD7(3) 04/13/05 15:10 005				
Methylene chloride	1.5 B	1.0	ug/L	SW846 8260B
Naphthalene	1.8 B	1.0	ug/L	SW846 8260B
Chloroform	2.3 B	1.0	ug/L	SW846 8260B
KD8(9) 04/13/05 16:00 006				
Chloroform	2.3 B	1.0	ug/L	SW846 8260B
Methylene chloride	1.4 B	1.0	ug/L	SW846 8260B
Naphthalene	100 B,E	1.0	ug/L	SW846 8260B
Methylene chloride	6.8 B	3.3	ug/L	SW846 8260B
Naphthalene	52 B	3.3	ug/L	SW846 8260B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5D260113

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
KD9(7) 04/13/05 20:00 007				
Chloroform	2.4 B	1.0	ug/L	SW846 8260B
Naphthalene	4.7 B	1.0	ug/L	SW846 8260B
Trichloroethene	3.6	1.0	ug/L	SW846 8260B
KD10(3) 04/13/05 20:45 008				
Chloroform	2.8 B	1.0	ug/L	SW846 8260B
Methylene chloride	4.3 B	1.0	ug/L	SW846 8260B
Naphthalene	210 B,E	1.0	ug/L	SW846 8260B
Trichloroethene	7.2	1.0	ug/L	SW846 8260B
Methylene chloride	15 B	8.3	ug/L	SW846 8260B
Naphthalene	81 B	8.3	ug/L	SW846 8260B
KD10(15) 04/13/05 21:00 009				
Chloroform	3.2 B	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	2.6	1.0	ug/L	SW846 8260B
Methylene chloride	5.3 B	1.0	ug/L	SW846 8260B
Naphthalene	3.5 B	1.0	ug/L	SW846 8260B
Trichloroethene	28	1.0	ug/L	SW846 8260B
KD11(4) 04/13/05 22:35 010				
Chloroform	2.8 B	1.0	ug/L	SW846 8260B
Methylene chloride	3.8 B	1.0	ug/L	SW846 8260B
Naphthalene	8.7 B	1.0	ug/L	SW846 8260B
Toluene	1.2	1.0	ug/L	SW846 8260B
Trichloroethene	6.6	1.0	ug/L	SW846 8260B
KD11(6) 04/13/05 22:40 011				
Toluene	430	15	ug/L	SW846 8260B
Chloroform	3.2 B	1.0	ug/L	SW846 8260B
Ethylbenzene	1.9	1.0	ug/L	SW846 8260B
Methylene chloride	3.4 B	1.0	ug/L	SW846 8260B
Naphthalene	1.9 B	1.0	ug/L	SW846 8260B
Toluene	200 E	1.0	ug/L	SW846 8260B
Trichloroethene	3.3	1.0	ug/L	SW846 8260B
Xylenes (total)	8.7	2.0	ug/L	SW846 8260B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A5D260113

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
KD12(10) 04/13/05 23:45 012				
Chloroform	2.9 B	1.0	ug/L	SW846 8260B
Methylene chloride	2.7 B	1.0	ug/L	SW846 8260B
Naphthalene	1.9 B	1.0	ug/L	SW846 8260B
Trichloroethene	6.2	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A5D260113

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

A5D260113

ANALYTICAL METHOD	ANALYST	ANALYST ID
SW846 8260B	Richard J. Quayle	001904

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SEVERN TRENT STL

GCMS VOLATILE DATA

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3(4')

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-001	**Work Order #...:**	G859K1AA	**Matrix.....:**	SO
Date Sampled...:	04/12/05 18:45	**Date Received..:**	04/14/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	10	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	10	ug/L
Bromodichloromethane	ND	10	ug/L
Bromoform	ND	10	ug/L
Bromomethane	ND	10	ug/L
Carbon tetrachloride	ND	10	ug/L
Chlorobenzene	ND	10	ug/L
Chlorodibromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	10	ug/L
Chloromethane	ND	10	ug/L
Dibromomethane	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	10	ug/L
1,2-Dichloroethane	ND	10	ug/L
cis-1,2-Dichloroethene	ND	10	ug/L
trans-1,2-Dichloroethene	ND	10	ug/L
1,1-Dichloroethene	ND	10	ug/L
1,2-Dichloropropane	ND	10	ug/L
1,3-Dichloropropane	ND	10	ug/L
2,2-Dichloropropane	ND	10	ug/L
1,1-Dichloropropene	ND	10	ug/L
1,4-Dioxane	**13000**	**2000**	**ug/L**
Ethylbenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Isopropylbenzene	ND	10	ug/L
Methylene chloride	ND	10	ug/L
Naphthalene	ND	10	ug/L
Styrene	ND	10	ug/L
1,1,1,2-Tetrachloroethane	ND	10	ug/L
1,1,2,2-Tetrachloroethane	ND	10	ug/L
Tetrachloroethene	ND	10	ug/L
Toluene	ND	10	ug/L
1,2,4-Trichloro-benzene	ND	10	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3(4')

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-001 **Work Order #...:** G859K1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	10	ug/L
1,1,2-Trichloroethane	ND	10	ug/L
Trichloroethene	ND	10	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	10	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	ND	20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	114	(59 - 138)
1,2-Dichloroethane-d4	107	(61 - 130)
Toluene-d8	101	(60 - 143)
4-Bromofluorobenzene	78	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3(4')

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-001	**Work Order #...:**	G859K2AA	**Matrix.....:**	SO
Date Sampled...:	04/12/05 18:45	**Date Received..:**	04/14/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.2 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	**16000 E**	**200**	**ug/L**
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**1.6 B**	**1.0**	**ug/L**
Naphthalene	**1.5 B**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-3(4')

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-001 **Work Order #...:** G859K2AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**3.6**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.2**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(59 - 138)
1,2-Dichloroethane-d4	102	(61 - 130)
Toluene-d8	98	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4(2')

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-002	**Work Order #...:**	G85911AA	**Matrix.....:**	SO
Date Sampled...:	04/12/05 19:20	**Date Received..:**	04/14/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.4 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**1.7 B**	**1.0**	**ug/L**
Naphthalene	**1.1 B**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	**4.8**	**1.0**	**ug/L**
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4(2')

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-002 **Work Order #...:** G85911AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(59 - 138)
1,2-Dichloroethane-d4	109	(61 - 130)
Toluene-d8	99	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4(11')

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-003	**Work Order #...:**	G85991AA	**Matrix.....:**	SO
Date Sampled...:	04/12/05 19:50	**Date Received..:**	04/14/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.5 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**1.2 B**	**1.0**	**ug/L**
Naphthalene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-4(11')

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-003 **Work Order #...:** G85991AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	**1.3**	**1.0**	**ug/L**
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**2.5**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(59 - 138)
1,2-Dichloroethane-d4	109	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-5(3')

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-004	**Work Order #...:**	G86AD1AA	**Matrix.....:**	SO
Date Sampled...:	04/12/05 21:00	**Date Received..:**	04/14/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.2 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	**520**	**200**	**ug/L**
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**1.5 B**	**1.0**	**ug/L**
Naphthalene	**1.4 B**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: Kd-5(3')

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-004 **Work Order #...:** G86AD1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**1.1**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(59 - 138)
1,2-Dichloroethane-d4	102	(61 - 130)
Toluene-d8	99	(60 - 143)
4-Bromofluorobenzene	84	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD7(3)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-005	**Work Order #...:**	G86AE1AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 15:10	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**1.5 B**	**1.0**	**ug/L**
Naphthalene	**1.8 B**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD7(3)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-005 **Work Order #...:** G86AE1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.3 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(59 - 138)
1,2-Dichloroethane-d4	105	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	83	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD8(9)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-006	**Work Order #...:**	G86AH1AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 16:00	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.3 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**1.4 B**	**1.0**	**ug/L**
Naphthalene	**100 B,E**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD8(9)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-006 **Work Order #...:** G86AH1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(59 - 138)
1,2-Dichloroethane-d4	104	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	80	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD8(9)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-006	**Work Order #...:**	G86AH2AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 16:00	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/10/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	3.33	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	3.3	ug/L
Bromodichloromethane	ND	3.3	ug/L
Bromoform	ND	3.3	ug/L
Bromomethane	ND	3.3	ug/L
Carbon tetrachloride	ND	3.3	ug/L
Chlorobenzene	ND	3.3	ug/L
Chlorodibromomethane	ND	3.3	ug/L
Chloroethane	ND	3.3	ug/L
Chloroform	ND	3.3	ug/L
Chloromethane	ND	3.3	ug/L
Dibromomethane	ND	3.3	ug/L
1,2-Dichlorobenzene	ND	3.3	ug/L
1,3-Dichlorobenzene	ND	3.3	ug/L
1,4-Dichlorobenzene	ND	3.3	ug/L
Dichlorodifluoromethane	ND	3.3	ug/L
1,1-Dichloroethane	ND	3.3	ug/L
1,2-Dichloroethane	ND	3.3	ug/L
cis-1,2-Dichloroethene	ND	3.3	ug/L
trans-1,2-Dichloroethene	ND	3.3	ug/L
1,1-Dichloroethene	ND	3.3	ug/L
1,2-Dichloropropane	ND	3.3	ug/L
1,3-Dichloropropane	ND	3.3	ug/L
2,2-Dichloropropane	ND	3.3	ug/L
1,1-Dichloropropene	ND	3.3	ug/L
1,4-Dioxane	ND	670	ug/L
Ethylbenzene	ND	3.3	ug/L
Hexachlorobutadiene	ND	3.3	ug/L
Isopropylbenzene	ND	3.3	ug/L
Methylene chloride	**6.8 B**	**3.3**	**ug/L**
Naphthalene	**52 B**	**3.3**	**ug/L**
Styrene	ND	3.3	ug/L
1,1,1,2-Tetrachloroethane	ND	3.3	ug/L
1,1,2,2-Tetrachloroethane	ND	3.3	ug/L
Tetrachloroethene	ND	3.3	ug/L
Toluene	ND	3.3	ug/L
1,2,4-Trichloro-benzene	ND	3.3	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD8(9)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-006 **Work Order #...:** G86AH2AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	3.3	ug/L
1,1,2-Trichloroethane	ND	3.3	ug/L
Trichloroethene	ND	3.3	ug/L
Trichlorofluoromethane	ND	3.3	ug/L
1,2,3-Trichloropropane	ND	3.3	ug/L
Vinyl chloride	ND	3.3	ug/L
Xylenes (total)	ND	6.7	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	124	(59 - 138)
1,2-Dichloroethane-d4	118	(61 - 130)
Toluene-d8	95	(60 - 143)
4-Bromofluorobenzene	80	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD9(7)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-007	**Work Order #...:**	G86AK1AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 20:00	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.4 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Naphthalene	**4.7 B**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD9(7)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-007 **Work Order #...:** G86AK1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.6**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(59 - 138)
1,2-Dichloroethane-d4	103	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	85	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10(3)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-008	**Work Order #...:**	G86AM1AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 20:45	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.8 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**4.3 B**	**1.0**	**ug/L**
Naphthalene	**210 B,E**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichlorobenzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10(3)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-008 **Work Order #...:** G86AM1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**7.2**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(59 - 138)
1,2-Dichloroethane-d4	101	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	84	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10(3)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-008	**Work Order #...:**	G86AM2AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 20:45	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/10/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	8.33	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	8.3	ug/L
Bromodichloromethane	ND	8.3	ug/L
Bromoform	ND	8.3	ug/L
Bromomethane	ND	8.3	ug/L
Carbon tetrachloride	ND	8.3	ug/L
Chlorobenzene	ND	8.3	ug/L
Chlorodibromomethane	ND	8.3	ug/L
Chloroethane	ND	8.3	ug/L
Chloroform	ND	8.3	ug/L
Chloromethane	ND	8.3	ug/L
Dibromomethane	ND	8.3	ug/L
1,2-Dichlorobenzene	ND	8.3	ug/L
1,3-Dichlorobenzene	ND	8.3	ug/L
1,4-Dichlorobenzene	ND	8.3	ug/L
Dichlorodifluoromethane	ND	8.3	ug/L
1,1-Dichloroethane	ND	8.3	ug/L
1,2-Dichloroethane	ND	8.3	ug/L
cis-1,2-Dichloroethene	ND	8.3	ug/L
trans-1,2-Dichloroethene	ND	8.3	ug/L
1,1-Dichloroethene	ND	8.3	ug/L
1,2-Dichloropropane	ND	8.3	ug/L
1,3-Dichloropropane	ND	8.3	ug/L
2,2-Dichloropropane	ND	8.3	ug/L
1,1-Dichloropropene	ND	8.3	ug/L
1,4-Dioxane	ND	1700	ug/L
Ethylbenzene	ND	8.3	ug/L
Hexachlorobutadiene	ND	8.3	ug/L
Isopropylbenzene	ND	8.3	ug/L
Methylene chloride	**15 B**	**8.3**	**ug/L**
Naphthalene	**81 B**	**8.3**	**ug/L**
Styrene	ND	8.3	ug/L
1,1,1,2-Tetrachloroethane	ND	8.3	ug/L
1,1,2,2-Tetrachloroethane	ND	8.3	ug/L
Tetrachloroethene	ND	8.3	ug/L
Toluene	ND	8.3	ug/L
1,2,4-Trichloro-benzene	ND	8.3	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10(3)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-008 **Work Order #...:** G86AM2AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	8.3	ug/L
1,1,2-Trichloroethane	ND	8.3	ug/L
Trichloroethene	ND	8.3	ug/L
Trichlorofluoromethane	ND	8.3	ug/L
1,2,3-Trichloropropane	ND	8.3	ug/L
Vinyl chloride	ND	8.3	ug/L
Xylenes (total)	ND	17	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	119	(59 - 138)
1,2-Dichloroethane-d4	115	(61 - 130)
Toluene-d8	98	(60 - 143)
4-Bromofluorobenzene	81	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD10(15)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-009	**Work Order #...:**	G86AN1AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 21:00	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**3.2 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	**2.6**	**1.0**	**ug/L**
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**5.3 B**	**1.0**	**ug/L**
Naphthalene	**3.5 B**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD10(15)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-009 **Work Order #...:** G86AN1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**28**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	115	(59 - 138)
1,2-Dichloroethane-d4	108	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	82	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD11(4)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-010	**Work Order #...:** G86AP1AA	**Matrix.....:** SO
Date Sampled...: 04/13/05 22:35	**Date Received..:** 04/15/05	
Leach Date.....: 04/26/05	**Prep Date.....:** 05/04/05	**Analysis Date..:** 05/04/05
Leach Batch #..: P511610	**Prep Batch #...:** 5125075	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
% Moisture.....:	**Analyst ID.....:** 001904	**Instrument ID..:** UX10
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.8 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**3.8 B**	**1.0**	**ug/L**
Naphthalene	**8.7 B**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	**1.2**	**1.0**	**ug/L**
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD11(4)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-010 **Work Order #...:** G86AP1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**6.6**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(59 - 138)
1,2-Dichloroethane-d4	100	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD11(6)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-011	**Work Order #...:**	G86AQ1AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 22:40	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	15.15	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	15	ug/L
Bromodichloromethane	ND	15	ug/L
Bromoform	ND	15	ug/L
Bromomethane	ND	15	ug/L
Carbon tetrachloride	ND	15	ug/L
Chlorobenzene	ND	15	ug/L
Chlorodibromomethane	ND	15	ug/L
Chloroethane	ND	15	ug/L
Chloroform	ND	15	ug/L
Chloromethane	ND	15	ug/L
Dibromomethane	ND	15	ug/L
1,2-Dichlorobenzene	ND	15	ug/L
1,3-Dichlorobenzene	ND	15	ug/L
1,4-Dichlorobenzene	ND	15	ug/L
Dichlorodifluoromethane	ND	15	ug/L
1,1-Dichloroethane	ND	15	ug/L
1,2-Dichloroethane	ND	15	ug/L
cis-1,2-Dichloroethene	ND	15	ug/L
trans-1,2-Dichloroethene	ND	15	ug/L
1,1-Dichloroethene	ND	15	ug/L
1,2-Dichloropropane	ND	15	ug/L
1,3-Dichloropropane	ND	15	ug/L
2,2-Dichloropropane	ND	15	ug/L
1,1-Dichloropropene	ND	15	ug/L
1,4-Dioxane	ND	3000	ug/L
Ethylbenzene	ND	15	ug/L
Hexachlorobutadiene	ND	15	ug/L
Isopropylbenzene	ND	15	ug/L
Methylene chloride	ND	15	ug/L
Naphthalene	ND	15	ug/L
Styrene	ND	15	ug/L
1,1,1,2-Tetrachloroethane	ND	15	ug/L
1,1,2,2-Tetrachloroethane	ND	15	ug/L
Tetrachloroethene	ND	15	ug/L
Toluene	**430**	**15**	**ug/L**
1,2,4-Trichloro-benzene	ND	15	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD11(6)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-011 **Work Order #...:** G86AQ1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	15	ug/L
1,1,2-Trichloroethane	ND	15	ug/L
Trichloroethene	ND	15	ug/L
Trichlorofluoromethane	ND	15	ug/L
1,2,3-Trichloropropane	ND	15	ug/L
Vinyl chloride	ND	15	ug/L
Xylenes (total)	ND	30	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	115	(59 - 138)
1,2-Dichloroethane-d4	106	(61 - 130)
Toluene-d8	95	(60 - 143)
4-Bromofluorobenzene	83	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

MACTEC Engineering and Consulting Inc

Client Sample ID: KD11(6)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-011	**Work Order #...:**	G86AQ2AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 22:40	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**3.2 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	**1.9**	**1.0**	**ug/L**
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**3.4 B**	**1.0**	**ug/L**
Naphthalene	**1.9 B**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	**200 E**	**1.0**	**ug/L**
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD11(6)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-011 **Work Order #...:** G86AQ2AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**3.3**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	**8.7**	**2.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(59 - 138)
1,2-Dichloroethane-d4	97	(61 - 130)
Toluene-d8	103	(60 - 143)
4-Bromofluorobenzene	98	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: KD12(10)

SPLP GC/MS Volatiles

Lot-Sample #...:	A5D260113-012	**Work Order #...:**	G86AR1AA	**Matrix.....:**	SO
Date Sampled...:	04/13/05 23:45	**Date Received..:**	04/15/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
% Moisture.....:		**Analyst ID.....:**	001904	**Instrument ID..:**	UX10
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	**2.9 B**	**1.0**	**ug/L**
Chloromethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
Methylene chloride	**2.7 B**	**1.0**	**ug/L**
Naphthalene	**1.9 B**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: KD12(10)

SPLP GC/MS Volatiles

Lot-Sample #...: A5D260113-012 **Work Order #...:** G86AR1AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	**6.2**	**1.0**	**ug/L**
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(59 - 138)
1,2-Dichloroethane-d4	102	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	85	(47 - 158)

NOTE(S):

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

SEVERN TRENT STL

QUALITY CONTROL SECTION

METHOD BLANK REPORT

SPLP GC/MS Volatiles

Client Lot #...: A5D260113 **Work Order #...:** G86671AA **Matrix.....:** SOLID
MB Lot-Sample #: A5D260000-294
Leach Date.....: 04/26/05 **Prep Date.....:** 05/04/05 **Analysis Date..:** 05/04/05
Leach Batch #..: P511610 **Prep Batch #...:** 5125075 **Final Wgt/Vol..:** 5 mL
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Instrument ID..:** UX10
Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	**2.2**	**1.0**	**ug/L**	**SW846 8260B**
Chloromethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**1.8**	**1.0**	**ug/L**	**SW846 8260B**
Naphthalene	**2.5**	**1.0**	**ug/L**	**SW846 8260B**
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

SPLP GC/MS Volatiles

Client Lot #...: A5D260113 **Work Order #...:** G86671AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(59 - 138)
1,2-Dichloroethane-d4	108	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A5D260113 **Work Order #...:** G9VW91AA-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5E050000-075 G9VW91AC-LCSD
Prep Date.....: 05/04/05 **Analysis Date..:** 05/04/05
Prep Batch #...: 5125075
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001904 **Instrument ID..:** UX10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**92**	**(55 - 142)**			**SW846 8260B**
	105	**(55 - 142)**	**13**	**(0-27)**	**SW846 8260B**
Trichloroethene	**95**	**(70 - 131)**			**SW846 8260B**
	102	**(70 - 131)**	**7.2**	**(0-23)**	**SW846 8260B**
Benzene	**100**	**(75 - 129)**			**SW846 8260B**
	106	**(75 - 129)**	**5.9**	**(0-20)**	**SW846 8260B**
Toluene	**103**	**(71 - 130)**			**SW846 8260B**
	108	**(71 - 130)**	**4.8**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**100**	**(75 - 127)**			**SW846 8260B**
	103	**(75 - 127)**	**3.2**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(59 - 138)
	106	(59 - 138)
1,2-Dichloroethane-d4	98	(61 - 130)
	100	(61 - 130)
Toluene-d8	107	(60 - 143)
	105	(60 - 143)
4-Bromofluorobenzene	113	(47 - 158)
	111	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A5D260113 **Work Order #...:** G9VW91AA-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A5E050000-075 G9VW91AC-LCSD
Prep Date.....: 05/04/05 **Analysis Date..:** 05/04/05
Prep Batch #...: 5125075
Dilution Factor: 1 **Initial Wgt/Vol:** 5 mL **Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001904 **Instrument ID..:** UX10

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**10**	**9.2**	**ug/L**	**92**		**SW846 8260B**
	10	**10**	**ug/L**	**105**	**13**	**SW846 8260B**
Trichloroethene	**10**	**9.5**	**ug/L**	**95**		**SW846 8260B**
	10	**10**	**ug/L**	**102**	**7.2**	**SW846 8260B**
Benzene	**10**	**10**	**ug/L**	**100**		**SW846 8260B**
	10	**11**	**ug/L**	**106**	**5.9**	**SW846 8260B**
Toluene	**10**	**10**	**ug/L**	**103**		**SW846 8260B**
	10	**11**	**ug/L**	**108**	**4.8**	**SW846 8260B**
Chlorobenzene	**10**	**10**	**ug/L**	**100**		**SW846 8260B**
	10	**10**	**ug/L**	**103**	**3.2**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(59 - 138)
	106	(59 - 138)
1,2-Dichloroethane-d4	98	(61 - 130)
	100	(61 - 130)
Toluene-d8	107	(60 - 143)
	105	(60 - 143)
4-Bromofluorobenzene	113	(47 - 158)
	111	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

SPLP GC/MS Volatiles

Client Lot #...:	A5D260113	**Work Order #...:**	G859K1AC-MS	**Matrix.....:**	SO
MS Lot-Sample #:	A5D260113-001		*G859K1AD-MSD*		
Date Sampled...:	04/12/05 18:45	**Date Received..:**	04/14/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	10	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	001904	**Instrument ID..:**	UX10		

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**122**	**(43 - 147)**			**SW846 8260B**
	122	**(43 - 147)**	**0.54**	**(0-27)**	**SW846 8260B**
Trichloroethene	**115**	**(46 - 143)**			**SW846 8260B**
	114	**(46 - 143)**	**0.86**	**(0-23)**	**SW846 8260B**
Benzene	**112**	**(55 - 138)**			**SW846 8260B**
	110	**(55 - 138)**	**2.1**	**(0-20)**	**SW846 8260B**
Toluene	**117**	**(46 - 147)**			**SW846 8260B**
	116	**(46 - 147)**	**0.88**	**(0-24)**	**SW846 8260B**
Chlorobenzene	**108**	**(49 - 139)**			**SW846 8260B**
	109	**(49 - 139)**	**0.82**	**(0-22)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(59 - 138)
	103	(59 - 138)
1,2-Dichloroethane-d4	97	(61 - 130)
	93	(61 - 130)
Toluene-d8	108	(60 - 143)
	107	(60 - 143)
4-Bromofluorobenzene	111	(47 - 158)
	111	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

SPLP GC/MS Volatiles

Client Lot #...:	A5D260113	**Work Order #...:**	G859K1AC-MS	**Matrix.....:**	SO
MS Lot-Sample #:	A5D260113-001		G859K1AD-MSD		
Date Sampled...:	04/12/05 18:45	**Date Received..:**	04/14/05		
Leach Date.....:	04/26/05	**Prep Date.....:**	05/04/05	**Analysis Date..:**	05/04/05
Leach Batch #..:	P511610	**Prep Batch #...:**	5125075		
Dilution Factor:	10	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	001904	**Instrument ID..:**	UX10		

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	**ND**	**100**	**120**	**ug/L**	**122**		**SW846 8260B**
	ND	**100**	**120**	**ug/L**	**122**	**0.54**	**SW846 8260B**
Trichloroethene	**ND**	**100**	**120**	**ug/L**	**115**		**SW846 8260B**
	ND	**100**	**110**	**ug/L**	**114**	**0.86**	**SW846 8260B**
Benzene	**ND**	**100**	**110**	**ug/L**	**112**		**SW846 8260B**
	ND	**100**	**110**	**ug/L**	**110**	**2.1**	**SW846 8260B**
Toluene	**ND**	**100**	**120**	**ug/L**	**117**		**SW846 8260B**
	ND	**100**	**120**	**ug/L**	**116**	**0.88**	**SW846 8260B**
Chlorobenzene	**ND**	**100**	**110**	**ug/L**	**108**		**SW846 8260B**
	ND	**100**	**110**	**ug/L**	**109**	**0.82**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(59 - 138)
	103	(59 - 138)
1,2-Dichloroethane-d4	97	(61 - 130)
	93	(61 - 130)
Toluene-d8	108	(60 - 143)
	107	(60 - 143)
4-Bromofluorobenzene	111	(47 - 158)
	111	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

TRENT STL
Severn Trent Laboratories, Inc.

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L-4124 (0901)

Client: Mactec Engineering	Project Manager: Rhonda Quinn	Date: 4-12-05	Chain of Custody Number: 200881
Address: 3200 Town Point Dr	Telephone Number (Area Code)/Fax Number: 770-421-3516 / 770 421 3486	Lab Number:	Page 1 of 1
City: Kennesaw State: GA Zip Code: 30144	Site Contact: Rhonda Quinn	Lab Contact: Roger Toth	Analysis (Attach list if more space is needed)
Project Name and Location (State): Thermo King - Louisville GA	Carrier/Waybill Number: 465 344 69 6576 Fed Ex		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	5-gram Encore	25-gram SPLP Soil Core	SPLP Soil Core	2 oz. Moisture	Special Instructions/ Conditions of Receipt
Kd-1 (2')	4-12-05	1630				X							3	2		1	
Kd-1 (4')	4-12-05	1645				X							3	2		1	
Trip Blank										2							
Kd-2 (8')	4-12-05	1745											3	2		1	
Kd-3 (4')	4-12-05	1845											3	1	1	1	
Kd-3 (3')	4-12-05	1840											3	1	1	1	
Kd-4 (2')	4-12-05	1920											3	1	1	1	
Kd-4 (11')	4-12-05	1950											3	1	1	1	
Kd-5 (3')	4-12-05	2100											3	1	1	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other

TWK on TCL/VOC SPLP

QC Requirements (Specify): Analyze VOCs in 5-gram Freeze 25-gram SPLP VOCs upon receipt + hold # Soil Core

	Date	Time
1. Relinquished By: Amy Callery	4/12/05	2130
2. Relinquished By:	4-13-05	1800
3. Relinquished By:		

	Date	Time
1. Received By:	4-12-05	2130
2. Received By:	4-14-05	0935
3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton

Chain of Custody Record

TRENT STL
Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: Mactec Engineering	Project Manager: Rhonda Quinn	Date: 4/13/05	Chain of Custody Number: 200880
Address: 3200 Town Point Dr	Telephone Number (Area Code)/Fax Number: 770 421 3516 / 770 421 3486	Lab Number:	Page 1 of 2
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact: Rhonda Quinn; Lab Contact: Roger Toth		
Project Name and Location (State): Thermo King - Louisville, GA	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 5 gram EnCore	25 gram SPLP	Special Instructions/ Conditions of Receipt
KD7 (3)	4-13-05	1510				X	X						3	2	
KD8 (9)	4-13-05	1600				X	X						3	2	
KD9 (10)	4-13-05	1950				X	X						3	2	
KD9 (9)	4-13-05	1955				X	X						3	2	
KD9 (7)	4-13-05	2000				X	X						3	2	
KD10 (3)	4-13-05	2045				X	X						3	2	
KD10 (9)	4-13-05	2050				X	X						3	2	
KD10 (13)	4-13-05	2055				X	X						3	2	
KD10 (15)	4-13-05	2100				X	X						3	2	
KD10 (17)	4-13-05	2105				X	X						3	2	
KD11 (4)	4-13-05	2235				X	X						3	2	
KD11 (6)	4-13-05	2240				X	X						3	2	

2 Coolers

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: total VOCs SPLP ☐ 24 Hours ☐ 48 Hours ☒ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other ____

QC Requirements (Specify): Analyze total Size VOCs Freeze 25 gram SPLP upon receipt + hold

	Date	Time		Date	Time
1. Relinquished By: [signature]	4/14/05	1500	1. Received By: John Donat	4-15-05	9:40
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton

Chain of Custody Record

TRENT STL
Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: Mactec Engineering	Project Manager: Rhonda Quinn	Date: 4/13/05	Chain of Custody Number: 200878
Address: 3200 Town Point Dr	Telephone Number (Area Code)/Fax Number: 770 421 3516 770 4213486	Lab Number:	Page 2 of 2
City: Kennesaw; State: GA; Zip Code: 30144	Site Contact: Rhonda Quinn; Lab Contact: Roger Toth		
Project Name and Location (State): Thermo King Louisville GA	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	5gm Encore	75gm SPLP	VOCs	Special Instructions/ Conditions of Receipt
KD12 (9)	4-13-05	2340				X	X						3	2		2 coolers
KD12 (10)	4-13-05	2345				X	X						3	2		
Trip Blanks	4-12-05	—		X						X					2	
Trip Blank	4-12-05	—		X						X					1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☒ 7 Days (total VOCs) ☐ 14 Days ☒ 21 Days (SPLP) ☐ Other _____

QC Requirements (Specify): Analyze total site VOCs - 5gm Encore; Freeze 25gm SPLP upon receipt & hold

	Date	Time		Date	Time
1. Relinquished By: Jaime Pin	4/14/05	15:00	1. Received By: John Donat	4-15-05	9:00
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL North Canton

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Table K-1
Type 1 through Type 4 Ground Water RRS, mg/L

Parameter	Chronic Reference Dose Oral (mg/kg/day)	Chronic Reference Dose Inhalation (mg/kg/day)	Cancer Slope Factor Oral (mg/kg/day)-1	Cancer Slope Factor Inhalation (mg/kg/day)-1	Weight of Evidence	Source for Chronic Rfds and CSFs	Type 1/ Type 3 (mg/L)	
1,1,1-Trichloroethane	2.8E-01	6.30E-01	ND	ND	D	NCEA, PPRTV	0.2	
1,1,2-Trichloroethane	4.0E-03	ND	5.70E-02	5.60E-02	C	IRIS	0.005	
1,1-Dichloroethene	5.00E-02	5.70E-02	ND	ND	C	IRIS	0.007	
1,4-Dioxane	ND	ND	1.10E-02	ND	B2	IRIS	0.25	DL
Chloroform	1.0E-02	1.4E-02	ND	8.10E-02	B2	IRIS, NCEA	0.1	*
cis-1,2-Dichloroethene	1.0E-02	ND	ND	ND	D	PPRTV	0.07	MCL
Ethylbenzene	1.0E-01	2.86E-01	ND	ND	D	IRIS	0.7	
Isopropylbenzene (Cumene)	1.0E-01	1.14E-01	ND	ND	D	IRIS	0.005	DL
Methylene chloride	6.0E-02	8.57E-01	7.50E-03	1.64E-03	B2	IRIS, HEAST	0.005	
Naphthalene	2.0E-02	8.6E-04	ND	ND	C	IRIS	0.02	
Tetrachloroethene	1.0E-02	1.0E-02	5.40E-01	2.10E-02	B-C2	IRIS, Cal EPA	0.005	
Toluene	8.0E-02	1.40E+00	ND	ND	D	IRIS	1	
Trichloroethene	3.0E-04	1.14E-02	4.00E-01	4.00E-01	B2	NCEA	0.005	
Xylenes, mixed	2.0E-01	2.86E-02	ND	ND	D	IRIS	10	

Source Description: IRIS - Integrated Risk Information System, USEPA.
HEAST - Health Effects Assessment Summary Table FY1997, USEPA.
NCEA - National Center for Exposure Assessment, USEPA.
PPRTV - Provisional Peer Reviewed Toxicity Value
Cal EPA - California Environmental Protection Agency
Weight of Evidence from IRIS, 2007.
ND Toxicity values not available
(a) Volatilization factor for non-residential reduced by one-half from default because no showering or cooking occurs at the facility. Agreement from EPD on May 4, 2004.
Equation 2 (Noncarcinogens):
* Trihalomethanes

$$C = \frac{THI \times BW \times AT \times 365 days/year}{EF \times ED \times [(1/RfDi \times K \times IRa) + (1/RfDo \times IRw)]}$$

Where:
THI = Target Hazard Index =
BW = Body Weight =
AT = Averaging Time =
EF = Exposure Frequency =
EF = Exposure Frequency (Irrigation) =
ED = Exposure Duration =
RfDi = Inhalation Reference Dose =
K = Volatilization Factor = 0.0005 x 1000 L/m3 =
IRa = Inhalation Rate for Air =
RfDo = Oral Reference Dose =
IRw = Ingestion Rate for Water =
TR = Target Risk =

CSFo = Oral Cancer Slope Factor =
CSFi = Inhalation Cancer Slope Factor =

ND Toxicity values not available

Prepared by: LMS 2/15/07
Checked by: MKB 2/16/07

Table K-1
Type 1 through Type 4 Ground Water RRS, mg/L

Parameter	Type 2 Standard (mg/L) Adult Noncarcinogenic	Type 2 Standard (mg/L) Adult Carcinogenic	Type 2 Standard (mg/L) Child Noncarcinogenic	Type 2 Standard (mg/L) Child Carcinogenic	Type 2 Overall	Overall Residential	Type 4 Site-specific (mg/L) Occupational Noncarcinogenic	Type 4 Site-specific (mg/L) Occupational Carcinogenic	Type 4 Overall	Overall Nonresidential
1,1,1-Trichloroethane	3.2	ND	1.0	ND	**1.0**	**1.0**	8.9	ND	8.9	8.9
1,1,2-Trichloroethane	0.15	0.0025	0.063	0.0038	**0.0025**	**0.005**	0.41	0.0085	0.0085	0.0085
1,1-Dichloroethene	0.34	ND	0.10	ND	**0.10**	**0.10**	0.95	ND	0.95	0.95
1,4-Dioxane	ND	0.077	ND	0.17	**0.077**	**0.25**	ND	0.26	0.26	0.26
Chloroform	0.080	0.0021	0.025	0.0030	**0.0021**	**0.10**	0.22	0.0071	0.0071	0.10
cis-1,2-Dichloroethene	0.37	ND	0.16	ND	**0.16**	**0.16**	1.0	ND	1.0	1.0
Ethylbenzene	1.3	ND	0.43	ND	**0.43**	**0.70**	3.7	ND	3.7	3.7
Isopropylbenzene (Cumene)	0.68	ND	0.21	ND	**0.21**	**0.21**	1.9	ND	1.9	1.9
Methylene chloride	1.6	0.054	0.62	0.092	**0.054**	**0.054**	4.5	0.18	0.18	0.18
Naphthalene	0.0062	ND	0.0018	ND	**0.0018**	**0.02**	0.017	ND	0.017	0.020
Tetrachloroethene	0.061	0.0013	0.018	0.0026	**0.0013**	**0.0050**	0.17	0.0044	0.0044	0.005
Toluene	2.27	ND	0.88	ND	**0.88**	**1.0**	6.4	ND	6.4	6.4
Trichloroethene	0.010	0.00035	0.0039	0.00054	**0.00035**	**0.0050**	0.027	0.0012	0.0012	0.005
Xylenes, mixed	0.20	ND	0.059	ND	**0.059**	**10**	0.57	ND	0.57	10

Source Description: IRIS - Integrated Risk Information System, USEPA
HEAST - Health Effects Assessment Summa
NCEA - National Center for Exposure Assess
PPRTV - Provisional Peer Reviewed Toxicity
Cal EPA - California Environmental Protectior
Weight of Evidence from IRIS, 2007.
ND Toxicity values not available
(a) Volatilization factor for non-residential reduced by one-half from defa

Equation 2 (Noncarcinogens):
* Trihalomethanes

$$C = \frac{THI \times BW \times AT \times 365 days/year}{EF \times ED \times [(1/RfDi \times K \times IRa) + (1/RfDo \times IRw)]}$$

Equation 1 (Carcinogens):

$$C = \frac{TR \times BW \times AT \times 365 days/year}{EF \times ED \times [(SFi \times K \times IRa) + (SFo \times IRw)]}$$

Where:	Type 2 Adult	Type 2 Parameters Child	Type 4 Site-specific Parameters
THI = Target Hazard Index =	1	1	1
BW = Body Weight =	70 kg	15 kg	70 kg
AT = Averaging Time =	30 years (noncarc.); 70 (carc.)	6 years (noncarc.); 70 (carcinogens)	25 years for noncarcinogens; 70 years for carcinogens
EF = Exposure Frequency =	350 days/year	350 days/year	250 day/year
EF = Exposure Frequency (Irrigation) =			
ED = Exposure Duration =	30 years	6 years	25 year
RfDi = Inhalation Reference Dose =	Chemical Specific	Chemical Specific	Chemical Specific
K = Volatilization Factor = 0.0005 x 1000 L/m3 =	0.5 L/m3	0.5 L/m3	0.25 L/m3 (a)
IRa = Inhalation Rate for Air =	20 m3/day	15 m3/day	20 m3/day
RfDo = Oral Reference Dose =	Chemical Specific	Chemical Specific	Chemical Specific
IRw = Ingestion Rate for Water =	2 L/day	1 L/day (EFS)	1 L/day
TR = Target Risk =	0.00001 (Class A and B); 0.0001 (Class C)	0.00001 (Class A and B); 0.0001 (Class C)	0.00001 (Class A and B); 0.0001 (Class C)
CSFo = Oral Cancer Slope Factor =	Chemical Specific	Chemical Specific	Chemical Specific
CSFi = Inhalation Cancer Slope Factor =	Chemical Specific	Chemical Specific	Chemical Specific

ND Toxicity values not available

Prepared by: LMS 2/15/07
Checked by: MKB 2/16/07

Table K-2
Type 1 and 3 Soil Calculations, mg/kg

SUBSTANCE	Volatilization Factor (m^3/kg)	Table 2 Appendix III	Appendix I	Type 1 GW x 100	Risk-Based Residential Type 1 NC-Type 1	Risk-Based Residential Type 1 C-Type 1	Overall Type 1 RRS	Risk-Based Nonresidential Type 3 NC-Type 3	Risk-Based Nonresidential Type 3 C-Type 3	Surface Soil Type 3 RRS	Subsurface Soil Type 3 RRS	Overall Soil Type 3 RRS
1,1,1-Trichloroethane	1.97E+03	ND	5.4E+00	2.0E+01	5.8E+03	ND	2.0E+01	6.3E+03	ND	6.3E+03	2.0E+01	2.0E+01
1,1,2-Trichloroethane	7.05E+03	ND	5.0E-01	5.0E-01	2.6E+03	1.4E+03	5.0E-01	8.2E+03	1.8E+03	1.8E+03	5.0E-01	5.0E-01
1,1-Dichloroethene	1.23E+03	ND	3.6E-01	7.0E-01	3.4E+02	ND	7.0E-01	3.6E+02	ND	3.6E+02	7.0E-01	7.0E-01
1,4-Dioxane	3.31E+04	ND	1.3E-01	2.5E+01	ND	1.4E+03	2.5E+01	ND	5.2E+03	5.2E+03	2.5E+01	2.5E+01
Chloroform	2.67E+03	ND	6.8E-01	1.0E+01	6.4E+03	4.6E+03	1.0E+01	2.0E+04	5.8E+03	5.8E+03	1.0E+01	1.0E+01
cis-1,2-Dichloroethylene	2.84E+03	ND	5.3E-01	7.0E+00	6.4E+03	ND	7.0E+00	2.0E+04	ND	2.0E+04	7.0E+00	7.0E+00
Dichloroethylene, N.O.S.	2.84E+03	ND	5.3E-01	7.0E+00	6.4E+03	ND	7.0E+00	2.0E+04	ND	2.0E+04	7.0E+00	7.0E+00
Ethylbenzene	6.58E+03	ND	2.0E+01	7.0E+01	8.0E+03	ND	7.0E+01	9.2E+03	ND	9.0E+03	7.0E+01	7.0E+01
Isopropylbenzene	1.54E+04	ND	2.2E+01	5.0E-01	7.5E+03	ND	2.2E+01	8.6E+03	ND	8.6E+03	2.2E+01	2.2E+01
Naphthalene	7.07E+04	ND	1.0E+02	2.0E+00	2.9E+02	ND	1.0E+02	3.1E+02	ND	3.1E+02	1.0E+02	1.0E+02
Tetrachloroethene	2.82E+03	ND	1.8E-01	5.0E-01	1.3E+02	9.8E+00	5.0E-01	1.4E+02	1.6E+01	1.6E+01	5.0E-01	5.0E-01
Trichloroethene	3.76E+03	ND	1.3E-01	5.0E-01	1.0E+02	1.0E+00	5.0E-01	1.6E+02	1.3E+00	1.3E+00	5.0E-01	5.0E-01
Xylene (total)	7.21E+03	ND	2.0E+01	1.0E+03	1.0E+03	ND	1.0E+03	1.1E+03	ND	1.1E+03	1.0E+03	1.0E+03

NC Noncarcinogen
C Carcinogen
RRS Risk Reduction Standard
ND No Data for this route

Prepared by: LMS 2/15/07
Checked by: MKB 2/16/07

Table K-3
Type 2 Soil Calculations, mg/kg

SUBSTANCE	Volatilization Factor (m^3/kg)	Residential Leaching Criteria	Residential Child		Residential Adult		Overall Type 2 RRS
			NC-Type 2	C-Type 2	NC-Type 2	C-Type 2	
1,1,1-Trichloroethane	2.0E+03	4.9E+01	1.2E+03	ND	4.4E+03	ND	4.9E+01
1,1,2-Trichloroethane	7.1E+03	1.2E-01	3.1E+02	1.4E+01	3.1E+02	1.0E+01	1.2E-01
1,1-Dichloroethene	1.2E+03	2.9E+00	7.2E+01	ND	2.5E+02	ND	2.9E+00
1,4-Dioxane	3.3E+04	2.7E+00	ND	8.3E+02	ND	1.5E+03	2.7E+00
Chloroform	2.67E+03	2.0E+00	3.7E+01	5.0E+01	1.3E+02	3.5E+01	2.0E+00
cis-1,2-Dichloroethylene	2.8E+03	1.3E+01	7.8E+02	ND	7.8E+02	ND	1.3E+01
Dichloroethylene, N.O.S.	2.8E+03	1.3E+01	7.8E+02	ND	7.3E+03	ND	1.3E+01
Ethylbenzene	6.6E+03	1.0E+02	1.6E+03	ND	6.3E+03	ND	1.0E+02
Isopropylbenzene	1.5E+04	2.5E+04	1.5E+03	ND	5.9E+03	ND	1.5E+03
Naphthalene	7.1E+04	1.6E+01	6.1E+01	ND	2.2E+02	ND	1.6E+01
Tetrachloroethene	2.8E+03	3.4E-01	2.8E+01	8.3E+00	1.0E+02	8.4E+00	3.4E-01
Trichloroethene	3.8E+03	1.8E+00	1.5E+01	1.1E+00	9.1E+01	7.9E-01	7.9E-01
Xylene (total)	7.2E+03	1.6E+03	2.1E+02	ND	7.5E+02	ND	2.1E+02

NC Noncarcinogen
C Carcinogen
RRS Risk Reduction Standard
ND No Data

Prepared by: LMS 2/15/07
Checked by: MKB 2/16/07

Table K-4
Type 4 Soil Calculations, mg/kg

SUBSTANCE	Volatilization Factor (m^3/kg)	Nonresidential Leaching Criteria	Industrial Worker NC-Type 4	Industrial Worker C-Type 4	Direct Contact Type 4 RRS	Default Ind. Worker Overall (a) Type 4 RRS	
1,1,1-Trichloroethane	2.0E+03	4.4E+02	6.3E+03	ND	6.3E+03	4.4E+02	
1,1,2-Trichloroethane	7.1E+03	2.0E-01	8.2E+03	1.8E+01	1.8E+01	2.0E-01	
1,1-Dichloroethene	1.2E+03	2.8E+01	3.6E+02	ND	3.6E+02	2.8E+01	
1,4-Dioxane	3.3E+04	2.8E+00	ND	5.2E+03	5.2E+03	2.8E+00	
Chloroform	2.7E+03	2.0E+00	1.9E+02	5.8E+01	5.8E+01	2.0E+00	
cis-1,2-Dichloroethene	2.8E+03	1.8E+01	2.0E+04	ND	2.0E+04	1.8E+01	
Dichloroethylene, N.O.S.	2.8E+03	1.8E+01	2.0E+04	ND	2.0E+04	1.8E+01	
Ethylbenzene	6.6E+03	5.5E+02	9.2E+03	ND	9.2E+03	5.5E+02	
Isopropylbenzene	1.5E+04	2.3E+05	8.6E+03	ND	8.6E+03	8.6E+03	
Naphthalene	7.1E+04	1.6E+01	3.1E+02	ND	3.1E+02	1.6E+01	
Tetrachloroethene	2.8E+03	3.4E-01	1.4E+02	1.6E+01	1.6E+01	3.4E-01	
Trichloroethene	3.8E+03	1.8E+00	1.6E+02	1.3E+00	1.3E+00	1.3E+00	**(b) 1.8**
Xylene (total)	7.2E+03	1.6E+03	1.1E+03	ND	1.1E+03	1.1E+03	

(a) Includes comparison to Nonresidential Leaching Criteria. Nonresidential leaching criteria is higher of values based on Type 3 and Type 4 GW RRS.
(b) The approved leaching RRS is applied to areas beneath the building foundation because there is no potential for direct contact and the majority of these sub-foundation soils are greater than 2 feet in depth.

NC Noncarcinogen
C Carcinogen
RRS Risk Reduction Standard
ND No Data

Prepared by: LMS 2/15/07
Checked by: MKB 2/16/07

Table K-5
Exposure Parameters for Soil and Ground Water

Exposure Parameters for Type 4 Soil	**Industrial Worker**	**Units**
Hazard Index	1	
Target Risk	1E-05	
Body Weight	70	kg
Averaging Time, Carcinogen	70	years
Averaging Time, Noncarcinogen	25	years
Exposure Duration	25	years
Exposure Frequency	230	days/yr
Soil Ingestion Rate	50	mg/day
Air Inhalation Rate	20	m^3/day
PEF	4.63E+09	m^3/kg
CF	1E-06	kg/mg

Exposure Parameters for Type 2 Soil:	**Residential Child**	**Residential Adult**	**Units**
Hazard Index	1	1	
Target Risk	1E-05	1E-05	
Body Weight	15	70	kg
Averaging Time, Carcinogen	70	70	years
Averaging Time, Noncarcinogen	6	30	years
Exposure Duration	6	30	years
Exposure Frequency	350	350	days/yr
Soil Ingestion Rate	200	100	mg/day
Air Inhalation Rate	15	20	m^3/day
PEF	4.63E+09	4.63E+09	m^3/kg
CF	1E-06	1E-06	kg/mg

Exposure Parameters for Type 1 and Type 3 Soils:	**Residential Type 1**	**Nonresidential Type 3**	**Units**
Hazard Index	1	1	
Target Risk	1.E-05	1E-05	
Body Weight	70	70	kg
Averaging Time, Carcinogen	70	70	years
Averaging Time, Noncarcinogen	30	25	years
Exposure Duration	30	25	years
Exposure Frequency	350	250	days/yr
Soil Ingestion Rate	114	50	mg/day
Air Inhalation Rate	15	20	m^3/day
PEF	4.63E+09	4.63E+09	m^3/kg
CF	1E-06	1E-06	kg/mg

Exposure Parameters for Type 4 Ground Water	**Industrial Worker**	**Units**
Hazard Index	1	
Target Risk	1E-05	(Class A and B);
	1E-04	(Class C)
Body Weight	70	kg
Averaging Time, Carcinogen	70	years
Averaging Time, Noncarcinogen	25	years
Exposure Duration	25	years
Exposure Frequency	250	day/year
Water Ingestion Rate	1	L/day
Air Inhalation Rate	20	m^3/day
Volatilization Factor = 0.0005 x 1000 L/m3 =	0.25	L/m3

Exposure Parameters for Type 2 Ground Water:	**Residential Child**	**Residential Adult**	**Units**
Hazard Index	1	1	
Target Risk	1E-05	1E-05	(Class A and B);
	1E-04	1E-04	(Class C)
Body Weight	15	70	kg
Averaging Time, Carcinogen	70	70	years
Averaging Time, Noncarcinogen	6	30	years
Exposure Duration	6	30	years
Exposure Frequency	350	350	day/year
Water Ingestion Rate	1	2	L/day
Air Inhalation Rate	15	20	m^3/day
Volatilization Factor = 0.0005 x 1000 L/m3 =	0.5	0.5	L/m3

Prepared by: LMS 2/15/07
Checked by: MKB 2/16/07

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Table K-6a
Area 1
Soil to Ground water Leachability

	K_d (a) (L/kg)	K_{oc} (L/kg)	Source	$Ø_w$	Øa	H' (unitless)	Øw+Øa*H'/$Þ_b$	Groundwater Type 1/3 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 1/3 C_s (mg/kg)	Groundwater Type 2 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 2 C_s (mg/kg)	Residential Cs (mg/kg)	Groundwater Type 4 RRS (c) (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 4 C_s (mg/kg)	Overall Cs (mg/kg)	
1,1,1-Trichloroethane	2.20E+00	1.10E+02	SSG	0.3	0.13	7.05E-01	0.2611	2.0E-01	4.0E+00	9.8E+00	1.0E+00	2.0E+01	4.9E+01	4.9E+01	8.9E+00	1.8E+02	4.4E+02	4.4E+02	
1,1,2-Trichloroethane	1.00E+00	5.01E+01	SSG	0.3	0.13	3.74E-02	0.2032	5.0E-03	1.0E-01	1.2E-01	2.5E-03	5.0E-02	6.0E-02	1.2E-01	8.5E-03	1.7E-01	2.0E-01	2.0E-01	
1,1-Dichloroethene	1.18E+00	5.89E+01	SSG	0.3	0.13	1.07E+00	0.2927	7.0E-03	1.4E-01	2.1E-01	1.0E-01	2.0E+00	2.9E+00	2.9E+00	9.5E-01	1.9E+01	2.8E+01	2.8E+01	
1,4-Dioxane	3.40E-01	1.70E+01	Chemfate	0.3	0.13	1.97E-04	0.2000	2.5E-01	5.0E+00	2.7E+00	7.7E-02	1.5E+00	8.3E-01	2.7E+00	2.6E-01	5.2E+00	2.8E+00	2.8E+00	
cis-1,2-Dichloroethene	7.10E-01	3.55E+01	SSG	0.3	0.13	1.67E-01	0.2145	7.0E-01	1.4E+01	1.3E+01	1.6E-01	3.2E+00	3.0E+00	1.3E+01	1.0E+00	2.0E+01	1.8E+01	1.8E+01	
Chloroform	7.96E-01	3.98E+01	SSG	0.3	0.13	1.50E-01	0.2130	1.0E-01	2.0E+00	2.0E+00	2.1E-03	4.2E-02	4.2E-02	2.0E+00	7.1E-03	1.4E-01	1.4E-01	2.0E+00	
Ethylbenzene	7.26E+00	3.63E+02	SSG	0.3	0.13	3.23E-01	0.2280	7.0E-01	1.4E+01	1.0E+02	4.3E-01	8.6E+00	6.4E+01	1.0E+02	3.7E+00	7.4E+01	5.5E+02	5.5E+02	
Isopropylbenzene (Cumene)	6.00E+03	3.00E+05	SCDM	0.3	0.13	4.92E+01	4.4640	5.0E-03	1.0E-01	6.0E+02	2.1E-01	4.2E+00	2.5E+04	2.5E+04	1.9E+00	3.8E+01	2.3E+05	2.3E+05	
Methylene chloride	2.34E-01	1.17E+01	SSG	0.3	0.13	8.98E-02	0.2078	5.0E-03	1.0E-01	4.4E-02	5.4E-02	1.1E+00	4.8E-01	4.8E-01	1.8E-01	3.6E+00	1.6E+00	1.6E+00	
Naphthalene	4.00E+01	2.00E+03	SSG	0.3	0.13	1.98E-02	0.2017	2.0E-02	4.0E-01	1.6E+01	1.8E-03	3.6E-02	1.4E+00	1.6E+01	1.7E-02	3.4E-01	1.4E+01	1.6E+01	
Tetrachloroethene	3.10E+00	1.55E+02	SSG	0.3	0.13	7.54E-01	0.2653	5.0E-03	1.0E-01	3.4E-01	1.3E-03	2.6E-02	8.7E-02	3.4E-01	4.4E-03	8.8E-02	3.0E-01	3.4E-01	
Toluene	3.64E+00	1.82E+02	SSG	0.3	0.13	2.72E-01	0.2236	1.0E+00	2.0E+01	7.7E+01	8.8E-01	1.8E+01	6.8E+01	7.7E+01	6.4E+00	1.3E+02	4.9E+02	4.9E+02	
Trichloroethene		(d)	Site	0.3	0.13	4.22E-01	0.2366			1.8E+00			1.8E+00	1.8E+00			1.8E+00	1.8E+00	(e)
Xylene	7.72E+00	3.86E+02	SSG AV	0.3	0.13	2.76E-01	0.2239	1.0E+01	2.0E+02	1.6E+03	5.9E-02	1.2E+00	9.4E+00	1.6E+03	5.7E-01	1.1E+01	9.1E+01	1.6E+03	(b)

Site Site-Specific Determination using SPLP data
SSG Soil Screening Guidance (US Environmental Protection Agency, 1996)
CHEMFATE Syracuse Research Corporation, 2006.
SCDM Superfund Chemical Data Matrix (US Environmental Protection Agency, 1997)
$Ø_w$ Water-filled soil porosity = 0.3 (L/L)
$Ø_a$ Air-filled soil porosity = 0.13 (L/L)
H' Dimensionless Henry Law Constant (HLC x 41) (unitless)
Þb Dry soil bulk density = 1.5 kg/L
RRS Risk Reduction Standard
C_w Target Leachate Concentration (mg/L)
C_s Screening Level in soil (mg/kg)
(a) $K_d = K_{oc} * f_{oc}$ where f_{oc} equal 0.02 (Georgia EPD HSRA Rules)
(b) C_s based on Type 1 RRS higher than C_s based on Type 4 RRS
(c) Using VF of 0.25 L/m^3
(d) Site -specific information was used
(e) 1.8 mg/kg was approved as the leaching RRS for TCE by EPD on January 19, 2007.

Prepared by : LMS 2/15/07
Checked by:MKB 2/16/07

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Table K-6b
Area 2
Soil to Ground water Leachability

	K_d (a) (L/kg)	K_{oc} (L/kg)	Source	$Ø_w$	Øa	H' (unitless)	Øw+Øa*H'/Þ$_b$	Groundwater Type 1/3 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 1/3 C_s (mg/kg)	Groundwater Type 2 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 2 C_s (mg/kg)	Residential Cs (mg/kg)	Groundwater Type 4 RRS (c) (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 4 C_s (mg/kg)	Overall Cs (mg/kg)	
1,1,1-Trichloroethane	2.20E+00	1.10E+02	SSG	0.3	0.13	7.05E-01	0.2611	2.0E-01	4.0E+00	9.8E+00	1.0E+00	2.0E+01	4.9E+01	4.9E+01	8.9E+00	1.8E+02	4.4E+02	4.4E+02	
1,1,2-Trichloroethane	1.00E+00	5.01E+01	SSG	0.3	0.13	3.74E-02	0.2032	5.0E-03	1.0E-01	1.2E-01	2.5E-03	5.0E-02	6.0E-02	1.2E-01	8.5E-03	1.7E-01	2.0E-01	2.0E-01	
1,1-Dichloroethene	1.18E+00	5.89E+01	SSG	0.3	0.13	1.07E+00	0.2927	7.0E-03	1.4E-01	2.1E-01	1.0E-01	2.0E+00	2.9E+00	2.9E+00	9.5E-01	1.9E+01	2.8E+01	2.8E+01	
1,4-Dioxane	3.40E-01	1.70E+01	Chemfate	0.3	0.13	1.97E-04	0.2000	2.5E-01	5.0E+00	2.7E+00	7.7E-02	1.5E+00	8.3E-01	2.7E+00	2.6E-01	5.2E+00	2.8E+00	2.8E+00	
cis-1,2-Dichloroethene	7.10E-01	3.55E+01	SSG	0.3	0.13	1.67E-01	0.2145	7.0E-02	1.4E+00	1.3E+00	1.6E-01	3.2E+00	3.0E+00	3.0E+00	1.0E+00	2.0E+01	1.8E+01	1.8E+01	
Chloroform	7.96E-01	3.98E+01	SSG	0.3	0.13	1.50E-01	0.2130	1.0E-01	2.0E+00	2.0E+00	2.1E-03	4.2E-02	4.2E-02	2.0E+00	7.1E-03	1.4E-01	1.4E-01	2.0E+00	
Ethylbenzene	7.26E+00	3.63E+02	SSG	0.3	0.13	3.23E-01	0.2280	7.0E-01	1.4E+01	1.0E+02	4.3E-01	8.6E+00	6.4E+01	1.0E+02	3.7E+00	7.4E+01	5.5E+02	5.5E+02	
Isopropylbenzene (Cumene)	6.00E+03	3.00E+05	SCDM	0.3	0.13	4.92E+01	4.4640	5.0E-03	1.0E-01	6.0E+02	2.1E-01	4.2E+00	2.5E+04	2.5E+04	1.9E+00	3.8E+01	2.3E+05	2.3E+05	
Methylene chloride	2.34E-01	1.17E+01	SSG	0.3	0.13	8.98E-02	0.2078	5.0E-03	1.0E-01	4.4E-02	5.4E-02	1.1E+00	4.8E-01	4.8E-01	1.8E-01	3.6E+00	1.6E+00	1.6E+00	
Naphthalene	4.00E+01	2.00E+03	SSG	0.3	0.13	1.98E-02	0.2017	2.0E-02	4.0E-01	1.6E+01	1.8E-03	3.6E-02	1.4E+00	1.6E+01	1.7E-02	3.4E-01	1.4E+01	1.6E+01	
Tetrachloroethene	3.10E+00	1.55E+02	SSG	0.3	0.13	7.54E-01	0.2653	5.0E-03	1.0E-01	3.4E-01	1.3E-03	2.6E-02	8.7E-02	3.4E-01	4.4E-03	8.8E-02	3.0E-01	3.4E-01	
Toluene	3.64E+00	1.82E+02	SSG	0.3	0.13	2.72E-01	0.2236	1.0E+00	2.0E+01	7.7E+01	8.8E-01	1.8E+01	6.8E+01	7.7E+01	6.4E+00	1.3E+02	4.9E+02	4.9E+02	
Trichloroethene		(d)	Site	0.3	0.13	4.22E-01	0.2366			1.8E+00			1.8E+00	1.8E+00			1.8E+00	1.8E+00	(f)
Xylene	7.72E+00	3.86E+02	SSG AV	0.3	0.13	2.76E-01	0.2239	1.0E+01	2.0E+02	1.6E+03	5.9E-02	1.2E+00	9.4E+00	1.6E+03	5.7E-01	1.1E+01	9.1E+01	1.6E+03	(b)

Site Site-Specific Determination using SPLP data
SSG Soil Screening Guidance (US Environmental Protection Agency, 1996)
CHEMFATE Syracuse Research Corporation, 2006.
SCDM Superfund Chemical Data Matrix (US Environmental Protection Agency, 1997)
$Ø_w$ Water-filled soil porosity = 0.3 (L/L)
$Ø_a$ Air-filled soil porosity = 0.13 (L/L)
H' Dimensionless Henry Law Constant (HLC x 41) (unitless)
Þb Dry soil bulk density = 1.5 kg/L
RRS Risk Reduction Standard
C_w Target Leachate Concentration (mg/L)
C_s Screening Level in soil (mg/kg)
(a) $K_d = K_{oc} * f_{oc}$ where f_{oc} equal 0.02 (Georgia EPD HSRA Rules)
(b) C_s based on Type 1 RRS higher than C_s based on Type 4 RRS
(c) Using VF of 0.25 L/m^3
(d) Area 2-specific value
(e) Extrapolated for Area 1
(f) 1.8 mg/kg was approved as the leaching RRS for TCE by EPD on January 19, 2007.

Prepared by : LMS 2/15/07
Checked by: MKB 2/16/07

TABLE K-7

VOLATILIZATION FACTOR CALCULATION

	MW	Di	Dei	K_{oc}	K_d	H	K_{as}	Y	VF
	g/mol	cm^2/sec	cm^2/sec	L/kg	cm^3/g	atm-m^3/mol	g/cm^3	cm^2/sec	m^3/kg
1,1,1-Trichloroethane	133	7.80E-02	7.80E-02	110	2.2	1.72E-02	3.20E-01	4.77E-03	1.97E+03
1,1,2-Trichloroethane	133.42	7.80E-02	0.0550	50.1	1.002	9.12E-04	3.73E-02	4.14E-04	7.05E+03
1,1-Dichloroethene	96.94	0.09	0.0634	58.9	1.178	2.61E-02	9.08E-01	9.88E-03	1.23E+03
1,4-Dioxane	88.1	0.23	0.1621	17	0.34	4.80E-06	5.79E-04	1.91E-05	3.31E+04
Chloroform	119	0.104	0.0733	39.8	0.796	3.67E-03	1.89E-01	2.71E-03	2.67E+03
Cumene	120	0.075	0.0529	300000	6000	1.20E+00	8.20E-03	8.79E-05	1.54E+04
cis-1,2-Dichloroethene	96.95	0.0736	0.0519	35.5	0.71	4.07E-03	2.35E-01	2.36E-03	2.84E+03
Ethylbenzene	106.17	0.075	0.0529	363	7.26	7.88E-03	4.45E-02	4.74E-04	6.58E+03
Naphthalene	128.18	0.059	0.0416	2000	40	4.83E-04	4.95E-04	4.18E-06	7.07E+04
Tetrachloroethylene	165.85	0.072	0.0507	155	3.1	1.84E-02	2.43E-01	2.39E-03	2.82E+03
Trichloroethene	134	0.079	0.0557	166	3.32	1.03E-02	1.27E-01	1.40E-03	3.76E+03
Xylenes (mean values)	106.17	0.078	0.0550	386	7.72	6.73E-03	3.57E-02	3.96E-04	7.21E+03

Equation is from USEPA, 1991b.

VF = Volatilization Factor (m^3/kg)

$$VF = (LS \times V \times DH) / (A) \; * \; \frac{(3.14 \times Y \times T)^{1/2}}{(2 \times Dei \times P \times Kas \times 0.001)}$$

$$Y = \frac{Dei \times P}{P + (p(1-P)/Kas)}$$

LS = Length of side of contaminated area =	45	m (default)
V = wind speed in mixing zone =	2.25	m/s (default)
DH = diffusion height =	2	m
A = area of contamination =	20,250,000	cm^2 (default)
T = exposure interval =	790000000	s = 25 yrs
Dei = effective diffusivity (cm^2/s) =	Chemical Specific	
P = air filled soil porosity (unitless) =	0.35	(default)
Kas = soil/air partition coefficient (g soil/cm^3 air) =	Chemical Specific	
Conversion factor =	0.001	kg/g
p = True soil density or particulate density =	2.65	g/cm^3 (default)

Prepared by: LMS 2/15/07
Checked by: MKB 2/16/07

MACTEC
engineering and constructing a better tomorrow

March 18, 2010

Ms. Alexandra Cleary
Program Manager
Hazardous Sites Response Program
Georgia Environmental Protection Division
2 Martin Luther King, Jr. Drive, SE
Suite 1462 East Floyd Tower
Atlanta, Georgia 30334

Subject: **Revision to Voluntary Remediation Plan and Application, Dated January 29, 2010**
Thermo King Corporation - Louisville, Jefferson County, Georgia
HSI Site No. 10702 Tax Parcel 0090-024
MACTEC Project 6122-09-0322

Dear Ms. Cleary:

On behalf of Thermo King Corporation, MACTEC Engineering and Consulting, Inc. (MACTEC) respectfully submits this revision to the Voluntary Remediation Plan (VRP) and Application, dated January 29, 2010. This revision is to address the Environmental Protection Division's (EPD) February 18, 2010 comments on the VRP and Application, dated January 29, 2010.

The following documents are included.

- Response to EPD's February 18, 2010 Comments
- Risk Reduction Standards (RRS) Calculations, revised per the comments
- Vapor Intrusion Model, revised per the comments
- Documentation of the air exchange rate inside of the building
- Ecological Risk Tables 5.3 and 5.4, revised per the comments
- Gantt Chart Schedules presenting the schedule for completing the VRP Application process and the proposed schedule for implementing the remediation plan
- Cost Estimate for implementing the remediation plan
- Delineation Criteria Tables for Surface and Subsurface Soils, and Groundwater (Tables 4.2A, 4.3A, 4.5A), revised to denote delineation criteria.
- Figures 4.1, 4.2, 4.3, 4.4, 4.7, and 4.8, revised to denote delineation criteria
- Description of the cleanup standards proposed for the site (included in the response to comments).

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www.mactec.com

The following items were not provided in this revision to the January 29, 2010 VRP Application:

- The proposed Uniform Environmental Covenant is being reviewed by legal counsel and will be incorporated in the completed VRP Application along with the tax parcel ID numbers for the adjoining properties.
- A current title report is being researched and will also be included in the completed VRP Application.

Other than the two bulleted items above, we believe this Application is complete except for the following items:

- Another round of groundwater samples will be collected and analyzed within six months of submittal of the completed Application
- Implementation of a fate and transport model, with tables of input and output parameters for modeling a hypothetical groundwater point of exposure in the Intermediate water-bearing zone
- Updated groundwater and surface water usage map
- Updated potentiometric surface maps will be prepared for the Uppermost and Intermediate water-bearing zones. The maps for the Intermediate zone will include point of demonstration (POD) wells. The Uppermost water-bearing zone, however, terminates at seeps on the hillside above the western side of Manson Branch and there is no downgradient point of exposure beyond the seeps for monitoring a POD well in this perched zone.

Consistent with the schedule provided for in the Director's January 6, 2010 letter, Thermo King, in their January 29, 2010 VRP Application, proposed submittal of the completed Application by December 31, 2010. Thermo King will endeavor to conduct the work necessary to prepare and submit the completed Application by EPD's recommended date of September 1, 2010 and has submitted a schedule to accomplish the required tasks in an expedited manner. However, information obtained as the additional work is conducted may indicate that the initially requested submittal date was appropriate. If so, Thermo King will notify EPD. Please note that the provided schedule was prepared assuming mobilization to conduct field work will begin by the second week of April.

We request that EPD advise of any other materials that are needed to make the Application complete. This Application is being submitted in lieu of a HSRA Corrective Action Plan (CAP) for the site. We request your acceptance of this incomplete Application and the schedule for its completion and that the pending deadline for submittal of the HSRA CAP or other HSRA submittals be stayed.

Please contact the undersigned if any questions arise.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Rhonda N. Quinn, P.G.
Senior Geologist
Georgia Professional Geologist # 1031

A. David Alcott, P.E.
Senior Principal Engineer

For A. David Alcott
with permission

Gregory J. Wrenn, P.E.
Senior Remediation Engineer/Project Manager
Georgia Professional Engineer # 025565

Enclosures

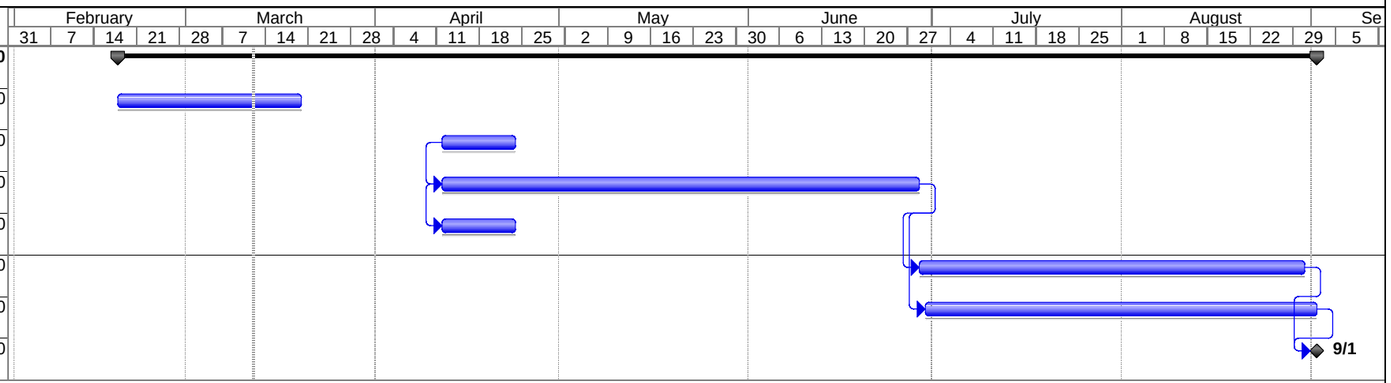
cc: David Kolb – Thermo King Corporation – Louisville, GA
Dave Sordi – Ingersoll Rand Company

GANTT CHART SCHEDULES

COST ESTIMATE FOR THE IMPLEMENTATION OF THE REMEDIATION PLAN

Schedule for VRP Application Process

ID	Task Name	Start	Finish
1	**VRP Application Process**	**2/18/2010**	**9/1/2010**
2	Task 1: Revise VRP Application & Respond to EPD Comments	2/18/2010	3/19/2010
3	Task 2: Installation of Intermediate Water-Bearing Monitoring Well	4/12/2010	4/23/2010
4	Task 3: Groundwater and Surface Water Sampling and Analyses	4/12/2010	6/28/2010
5	Task 4: In-situ Hydraulic Conductivity Tests in Intermediate Zone Wells	4/12/2010	4/23/2010
6	Task 5: Preparation of a Fate and Trasport Model of the Intermedate Water-Bearing Zone	6/29/2010	8/30/2010
7	Task 6: Preparation of the Completed VRP Application Document and Submittal to EPD	6/30/2010	9/1/2010
8	Task 7: Delivery of Completed VRP Application to EPD	9/1/2010	9/1/2010

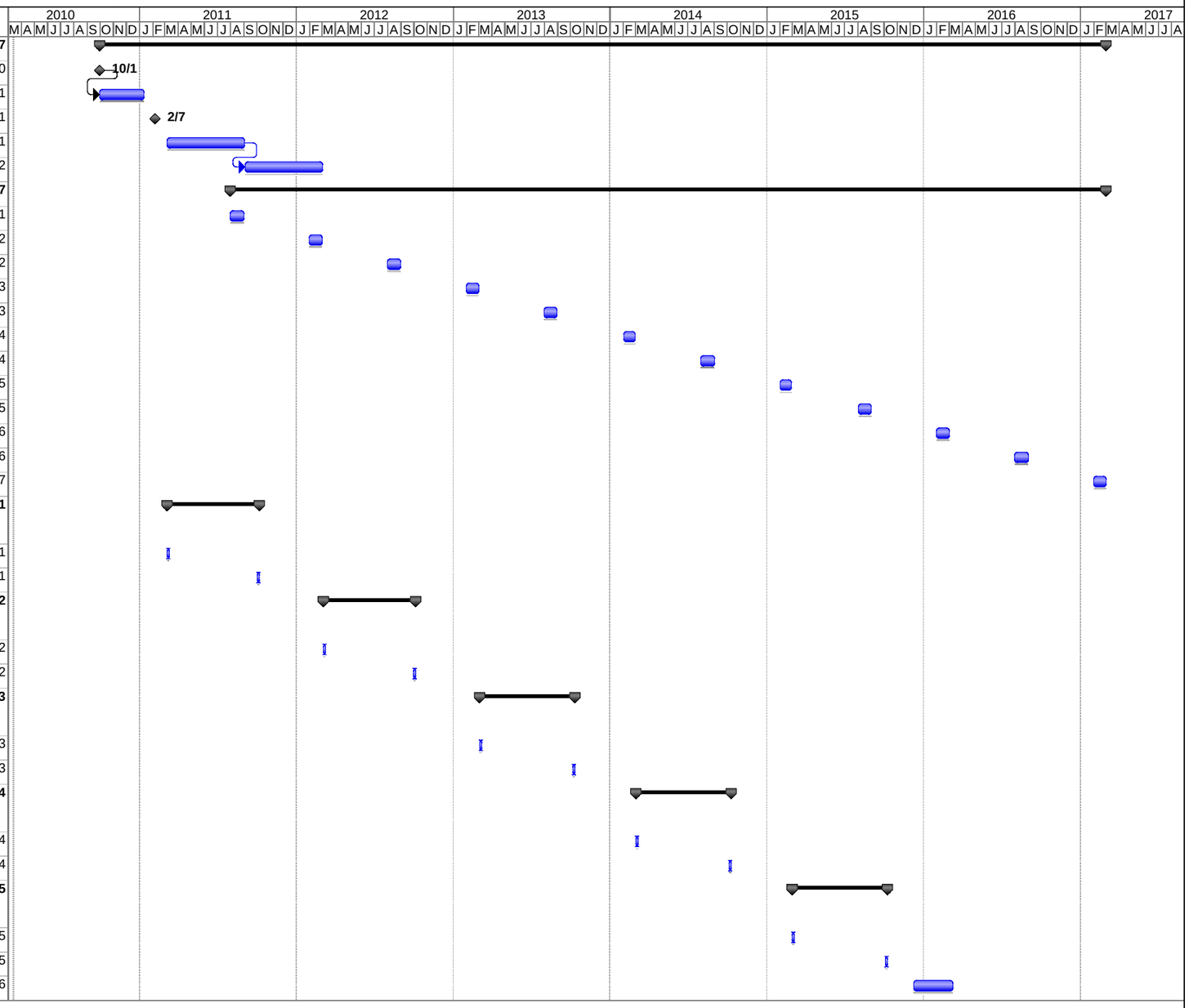


Project: VRP Application Process.mpp
Date: 3/12/2010

Task — Progress — Summary — External Tasks — Deadline
Split — Milestone — Project Summary — External Milestone

Schedule for Implementation of Remediation Plan

ID	Task Name	Start	Finish
1	**Implementation of Remediation Plan**	**10/1/2010**	**3/1/2017**
2	Task 1: EPD Provides Comments on the Completed VRP Application and Remediation Plan	10/1/2010	10/1/2010
3	Task 2: Response to EPD Comments and Revision of VRP Application and Remediation Plan	10/1/2010	1/11/2011
4	Task 3: EPD approves VRP Application and Remediation Plan and Accepts Site into VRP Prog	2/7/2011	2/7/2011
5	Task 4: Design & Installation of Seep Control Measures	3/7/2011	9/2/2011
6	Task 5: Installation of Restrictive Covanant Measures	9/5/2011	3/2/2012
7	**Task 6: Semi-Annual Status Report to EPD on Implementation of Remediation Plan**	**8/1/2011**	**3/1/2017**
8	Semi-Annual Status Report (1)	8/1/2011	9/1/2011
9	Semi-Annual Status Report (2)	2/1/2012	3/1/2012
10	Semi-Annual Status Report (3)	8/1/2012	8/31/2012
11	Semi-Annual Status Report (4)	2/1/2013	3/1/2013
12	Semi-Annual Status Report (5)	8/1/2013	8/30/2013
13	Semi-Annual Status Report (6)	2/3/2014	2/28/2014
14	Semi-Annual Status Report (7)	8/1/2014	9/1/2014
15	Semi-Annual Status Report (8)	2/2/2015	2/27/2015
16	Semi-Annual Status Report (9)	8/3/2015	9/1/2015
17	Semi-Annual Status Report (10)	2/1/2016	3/1/2016
18	Semi-Annual Status Report (11)	8/1/2016	9/1/2016
19	Semi-Annual Status Report (12)	2/1/2017	3/1/2017
20	**Task 7: Semi-Annual Groundwater and Surface Water Sampling and Analysis for 2011 (2 events per year)**	**3/7/2011**	**10/7/2011**
21	Event 1	3/7/2011	3/11/2011
22	Event 2	10/3/2011	10/7/2011
23	**Task 8: Semi-Annual Groundwater and Surface Water Sampling and Analysis for 2012 (2 events per year)**	**3/5/2012**	**10/5/2012**
24	Event 1	3/5/2012	3/9/2012
25	Event 2	10/1/2012	10/5/2012
26	**Task 9: Semi-Annual Groundwater and Surface Water Sampling and Analysis for 2013 (2 events per year)**	**3/4/2013**	**10/11/2013**
27	Event 1	3/4/2013	3/8/2013
28	Event 2	10/7/2013	10/11/2013
29	**Task 10: Semi-Annual Groundwater and Surface Water Sampling and Analysis for 2014 (2 events per year)**	**3/3/2014**	**10/10/2014**
30	Event 1	3/3/2014	3/7/2014
31	Event 2	10/6/2014	10/10/2014
32	**Task 11: Semi-Annual Groundwater and Surface Water Sampling and Analysis for 2015 (2 events per year)**	**3/2/2015**	**10/9/2015**
33	Event 1	3/2/2015	3/6/2015
34	Event 2	10/5/2015	10/9/2015
35	Task 12: Preparation and Submittal of Post-Remediation CSR	12/10/2015	3/9/2016



Project: Implementation of Remediation Plan
Date: 3/12/2010

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

TABLE VRP-1
ESTIMATE COST FOR VRP IMPLEMENTATION
THERMO KING, LOUISVILLE, GEORGIA

CAPITAL COSTS

	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
1.0	**Design and Permitting**				$22,940	
2.0	**Surface Water Controls**				$71,975	
3.0	**Project Management and Support**				$14,237	
4.0	**Contingency**				$16,373	
	TOTAL CAPITAL COST				**$125,525**	
	ANNUAL COSTS					
5.0	**Annual Inspections, Maintenance, Sampling & Reporting**					
	7.1 Semi-Annual Groundwater Sampling					
	Labor	2	event	$3,000	$6,000	Assumes 3 days/event, 2-man crew
	Laboratory Analytical	18	ea	$150	$2,700	VOCs
	Rental Equipment	2	event	$800	$1,600	
	Mobilization/Demobilization/Travel Expenses/Supplies	2	event	$1,200	$2,400	
	7.2 Semi-Annual Seep/Surface Water Sampling					
	Labor	2	event	$4,500	$9,000	Assumes 4 days/event, 2-man crew
	Laboratory Analytical	34	ea	$150	$5,100	VOCs
	Rental Equipment	8	event	$400	$3,200	
	Mobilization/Demobilization/Travel Expenses/Supplies	2	ea	$1,600	$3,200	
	7.3 Reporting	2	ea	$8,500	$17,000	
	7.4 Engineering Inspection	1	ea	$2,500	$2,500	
	SUBTOTAL - Annual Costs				**$52,700**	
6.0	**Post-Implementation Compliance Status Report**	1	ea	$35,000	$35,000	

PRESENT VALUE ANALYSIS Discount Rate = 4%

End Year	COST TYPE	TOTAL COST	TOTAL PRESENT VALUE	CUMMULATIVE COST
0	FIRST YEAR CAPITAL COST	$125,525	$125,525	$125,525
1	ANNUAL O&M (Year 1)	$52,700	$52,700	$178,225
2	ANNUAL O&M (Year 2)	$52,700	$51,346	$229,571
3	ANNUAL O&M (Year 3)	$52,700	$48,724	$278,295
4	ANNUAL O&M (Year 4)	$52,700	$46,850	$325,145
5	ANNUAL O&M (Year 5)	$87,700	$74,966	$400,112
	TOTAL PRESENT VALUE OF ALTERNATIVE			**$400,112**

The cost opinion is provided for budgetary purposes. MACTEC anticipates issuing a formal Request for Proposal to obtain actual cost estimates from several contractors after final design is complete. Descriptions and opinions of cost are based on discussions with various contractors and related MACTEC experience. Actual scope of work and costs may vary as additional information and formal cost estimates are obtained.

Prepared By: GJW 3/12/2010
Checked By: ADA 3/12/2010

Name of Document: Revised Voluntary Remediation Program Application			
Document Date: March 18, 2010			
Date Submitted to SCDHEC: March 18, 2010			
Name and Address	**Date Sent**	**Number of Copies**	**Shipping Method**
Ms. Alexander Cleary Program Manager Hazardous Sites Response Program Georgia Environmental Protection Division 2 Martin Luther King, Jr. Drive, SE Suite 1462 East Floyd Tower Atlanta, Georgia 30334	3/19/2010	3	Hand Delivered 1-paper copy 2-PDF format on CD
Mr. David Sordi, P.E. Manager Environmental Engineering IR Corporate Center 722 Davis Hill Road, Center Conway, NH 03813		1	US Mail 1- PDF format on CD
Mr. Aaron Kleinbaum, P.E., Esq Vice President – Environment, Health and Safety and Deputy General Counsel Ingersoll Rand Company One Centennial Avenue Piscataway, NJ 08854		1	US Mail 1- paper copy
Mr. David Kolb Operations Manager Thermo King Corporation 1430 Highway 24 East Louisville, Georgia 30434		1	US Mail 1- paper copy 1-PDF format on CD
File Copy: MACTEC Engineering and Consulting 3200 Town Point Drive Kennesaw, GA 30144		1	In house 1- paper copy 1- PDF format on CD

APPENDIX A

RESPONSE TO GEORGIA ENVIRONMENTAL PROTECTION DIVISION FEBRUARY 18, 2010 COMMENTS ON THE VOLUNTARY REMEDIATION PLAN AND APPLICATION, DATED JANUARY 29, 2010

REVISED TABLES, FIGURES, AND CALCULATIONS FOR RISK REDUCTION STANDARDS

RESPONSE TO GEORGIA ENVIRONMENTAL PROTECTION DIVISION FEBRUARY 18, 2010 COMMENTS ON THE JANUARY 29, 2010 VOLUNTARY REMEDIATION PLAN AND APPLICATION FOR THERMO KING – LOUISVILLE, JEFFERSON COUNTY, GEORGIA SITE (HSI 10702)

March 18, 2010

Groundwater Monitoring

1. *In Section 3.0 of the application, Proposed Remediation Plan, the last bullet states additional monitoring wells will be installed in the intermediate aquifer and at a point of demonstration and that annual groundwater sampling of the intermediate zone and point of demonstration (POD) wells will be conducted for a period of 5 years. EPD's approval regarding the frequency and duration of groundwater monitoring will be approved based on site-specific data and the submitted fate and transport model.*

Response to Comment 1*:*

Comment noted. Actually only one additional new monitoring well is planned to be installed in the Former South Settling Pond area and screened in the Intermediate water-bearing zone. This well will be used to obtain further data to better characterize the Intermediate water-bearing zone in this area. An existing monitoring well or wells will be selected as Point of Demonstration (POD) well(s) for the fate and transport modeling. The POD well selection will be based on current and historical groundwater analytical data. The groundwater monitoring plan in the completed VRP Application will be modified, as needed, based on the results of the 2010 groundwater monitoring event and the fate and transport modeling.

Risk Reduction Standard (RRS) Comments

2. **Class C Carcinogens:** *Please note class C carcinogens (e.g. 1,1,2-Trichloroethane and Naphthalene) have a target risk (TR) of 10^{-4}, not 10^{-5} (see Appendix Ill, Table 3 of the Rules for Hazardous Site Response). This will affect the RAGS equation values for 1,1,2-Trichloroethane and Naphthalene. Please revise these equations to reflect the correct TR. Please revise all soil and groundwater RRS values for these regulated substances and all appropriate Tables.*

Response to Comment 2:

Per the HSRA Rule, the target risk for Class C carcinogens is already set to 10^{-4} in the Type 1 and Type 3 soil risk reduction standard (RRS) calculations. For Type 2 soil and groundwater, HSRA Rule 391-3-19-.07(7)(b)2 and 391-3-19.07(7)(c)3 state excess cancer risk is less than 10^{-5} for all classes. Also, for Type 4 soil and groundwater, HSRA Rule 391-3-19-.07(9)(c)2 and 391-3-19.07(9)(d)2ii state excess cancer risk is less than 10^{-5} (all classes of carcinogens). Thermo King followed the guidelines provided in the HSRA Rule for Type 2 and 4. No additional changes are required to the RRS calculations. [Note: In an emailed communication from Shannon Lund, Georgia EPD, on March 11, 2010, Thermo King received confirmation of our approach for Class C carcinogens.]

3. **Groundwater RRS (Table K-1):** *The overall groundwater Types 1, 2, and 3 RRS values are correct and acceptable for use at the site. Please note however, the carcinogenic/noncarcinogenic risk values may need to be revised based on comments 2 and 4, although this might not affect the overall groundwater Types 1, 2, and 3 RRS values. EPD was unable to reproduce or determine the source of the discrepancy for the groundwater Type 4 RRS values for all regulated substances (with the exception of those that defaulted to the groundwater Type I RRS). Please revise.*

Response to Comment 3:

Comment noted. Please see responses to comments 2 and 4. For Type 4 groundwater RRS, Thermo King uses a site-specific volatilization factor from groundwater of 0.25 liters per cubic meter because showering at the facility does not occur. This site-specific assumption was previously approved by EPD in a meeting on May 4, 2004 and in a letter dated December 30, 2005. In addition, the facility will apply institutional controls to assure that groundwater exposure pathways remain incomplete.

4. **Exposure Parameters (Table K-5):** *EPD found discrepancies with the residential exposure parameters used for soil and groundwater RRS calculations. The correct values are provided below:*

   i. *Soil Ingestion Rate (IRs): 114 mg/day (residential adult)*

   ii. *Air Inhalation rate (IRa): 15 m^3/day (residential adult)*

   iii. *Please revise all appropriate RAGS equations. In addition, please include (as part of this table) the exposure parameters for the `direct contact only' construction worker scenario (as specified in Table K-4).*

Response to Comment 4*:*

Values in 4i and 4ii are used currently for the Type 1 soil calculations. Type 1 groundwater RRS are not calculated, but are from a lookup table (Appendix II, Table 1 of the HSRA Rule). Type 2 soil and groundwater calculations use site-specific residential assumptions that are based on USEPA guidance for exposure and risk assessment. On Table K-5, Thermo King has added reference citations for the site-specific assumptions. Comment 4iii – The construction worker soil direct contact exposure assumptions have been added to Table K-5. These soil values were not used in determining compliance with RRS for the site, but may be applicable to future construction at the site.

5. ***Soil Type 1 and 3 RRS (Table K-2):*** *The overall soil Types 1 and 3 RRS values are correct and acceptable for use at the site.*

Response to Comment 5*:*

Comment noted.

6. ***Soil Type 2 RRS (Table K-3):*** *Please revise the RAGS equation values, based on comments 2 and 4. Please revise the overall Type 2 RRS values, if necessary.*

Response to Comment 6*:*

Please see responses to comments 2 and 4. Type 2 RRS are based on site-specific assumptions. No revisions were made to the RRS calculations.

7. Construction Worker Scenario (Table K-4): *Please provide exposure parameters for the construction worker scenario (as stated in comment 4). Please provide adequate justification for site-specific exposure parameters for this receptor as a part of the text.*

Response to Comment 7*:*

The exposure assumptions have been provided on Table K-5. The source of these assumptions are indicated in Table K-5, i.e., whether from USEPA sources or based on professional judgment.

8. Table K-6a: *Please note footnote 'f' appears in the Table, but it is not included as part of the footnotes. It appears footnote 'e' is the correct footnote instead of 'f'. Please revise the text.*

Response to Comment 8*:*

The table has been be revised.

9. Table K-6b: *Please note footnote 'e' appears in the footnotes, but it is not included as part of the Table. Please revise the text.*

Response to Comment 9:

The table has been revised.

Vapor Intrusion (VI) Comments

10. Soil Concentration: *EPD does not accept the use of the average concentration of a regulated substance in the vapor intrusion modeling calculations. Please use the maximum detected concentration for the regulated substances in all calculations.*

11. Adjustment of Average Concentration: *On page 3, it is stated `the average concentration was adjusted (divided by three)'. EPD does not agree with this approach of adjustment. Please use the maximum detected concentration for the regulated substances in all calculations to generate risk hazard results, as stated in comment 10.*

Response to Comments 10 and 11*:*

Per 12-8-102(b)(14) of the VRP, a representative concentration means the average concentration to which a specified receptor is exposed over an exposure duration within a relevant exposure domain for soils or at an established or estimated point of exposure for groundwater. This approach is consistent with USEPA guidance for determination of average exposure concentrations. Thus, use of a statistical average soil or groundwater concentration in exposure modeling is appropriate under the VRP.

In addition, in USEPA Region 4's Human Health Risk Assessment Bulletins, the average groundwater concentration within a plume is recommended to address groundwater-related exposures. The groundwater concentrations used in the Johnson and Ettinger model was reduced by 3 because the extent of the VOC-impacted soil and groundwater beneath the building is

significantly less the building's foundation footprint. The impacted area is approximately one-third of the area of the total building footprint. Adjustment of the exposure domain concentration is permissible under USEPA CERCLA guidance for risk assessment and is accepted under other state voluntary cleanup programs. Thermo King believes this approach is appropriate and accurately represents the representative concentration for modeling.

However, Thermo King agrees to remove the factor of 3 assumption for groundwater and has completed the indoor air modeling concentrations using the maximum detected soil and groundwater concentrations in samples collected from beneath the building. Use of the maximum concentrations is a very conservative approach because the Johnson and Ettinger model assumes an infinite source underneath the entire footprint of the building; therefore, the source term for volatile emissions is clearly overstated since 2/3rds of the underlying area is not impacted. The results of the revised calculations incorporating these very conservative assumptions show that the vapor intrusion pathway poses a very minimal risk or hazard to site workers. Excess carcinogenic risk is less than 10^{-5} (soil risk: 2×10^{-6} and groundwater risk: 3×10^{-7}) and the hazard indices are less than one (soil HI:0.001 and groundwater HI:0.002). These calculations are shown in the attached Appendix B.

12. Air Exchange Rate: *Please note that adequate justification for the site-specific air exchange rate of 2.3 was not provided. The Vapor Intrusion Guidance indicates a typical range of 0.1-1.5 air/hr for commercial buildings. All non-default values need to be justified with adequate documentation.*

Response to Comment 12*:*

The basis for the air exchange rate calculation is attached in Appendix B.

13. Target Risk (TR): *Although the model's default TR is 10^{-6} in the VI Guidance, EPD's preferred target risk is 10^{-5} (10^{-4} for Class C carcinogens). Please revise model calculations.*

Response to Comment 13*:*

In the model, target risk (TR) is used only when calculating a remediation goal. Thermo King used the model to estimate concentrations in the building and to calculate "forward" risks and hazards for occupational receptors. No revisions to the modeling were required per this comment.

14. Comparison of Indoor Air Concentrations to OSHA Standards: *In Section 3.0 of the Application, Proposed Remediation Plan, the second bulleted item states, "Estimated indoor air concentrations would not exceed OSHA exposure limits for ongoing facility operations." Results from the vapor intrusion modeling can only be compared to OSHA Permissible Exposure Limits (PELs) if a Hazardous Communication Plan is in place to protect workers. Otherwise, direct comparison of the maximum detected concentration should be made to the calculated non-residential, risk-based groundwater concentration protective of indoor air exposure estimated by the Johnson and Ettinger (J&E) Model (Version 3.1, February 2004). If a Hazardous Communication Plan for the site exists, then a copy must be included as an appendix to the VRP application.*

Response to Comment 14*:*

In the modeling provided to EPD, Thermo King completed forward risk calculations to assess whether carcinogenic risks exceeded 10^{-5} and hazard indices exceeded 1. These benchmarks were not exceeded; thus, the calculation of remediation goals was not indicated. However, per EPD's request, Thermo King has completed the calculation of risk-based soil and groundwater concentrations protective of occupational receptors exposed to indoor air to further demonstrate that current concentrations in soil and groundwater do not pose an unacceptable risk or hazard to on-site receptors. The resulting risk-based goals are many fold greater than the maximum detected soil and groundwater concentrations, further demonstrating that the vapor intrusion pathway poses a very minimal risk. These calculations are attached in Appendix B.

15. *Toxicity Values: Please make sure the toxicity values are updated to match the correct RSL table values in the 'chemical properties look up table' before running the VI model.*

Response to Comment 15:

The toxicity values used in the J&E Modeling are current with the December 2009 RSL table.

Ecological Risk Assessment Comments

16. ***Seep TCE Concentrations and Manson Branch:*** *While the 2008 seep data did not show a risk to ecological receptors, which utilize Manson Branch, seep levels of TCE greater than its GA Instream Water Quality Criteria (ISWQS) of 30 µg/L are still being detected. Please revise the proposed Voluntary Remediation Plan to include the proposed corrective action to bring the seep water into compliance with the ISWQS.*

Response to Comment 16*:*

The uppermost groundwater aquifer at the site is a perched groundwater zone that flows to the east and terminates on the sloping hillside above the west bank of Manson Branch. Along the east-facing hill slope leading down to Manson Branch, the depth to perched groundwater naturally decreases going down slope to the point where some of the perched groundwater diffusely oozes to the ground surface as small perched seeps or springs on the hill slope.

Some of these perched seeps accumulate enough water in associated shallow depressions to allow sampling. Only two of these perched seeps exhibit VOC concentrations that exceed instream water quality criteria (ISWQC) and VOCs have never been detected in repeated samplings of Manson Branch. The HSRA Rules at 391-3-19-.07(4)(d) specify that HSRA corrective action must protect waters of the State from releases that would cause *surface water* concentrations to exceed ISWQC specified under the Water Quality Control Act rules at 391-3-6-.03(5).

In this unique perched-seep setting, the water in these small perched seeps should not be subjected to ISWQC as the seeps do not constitute a stream by any ordinary meaning.

Further, the small flow amount emanating from these perched seeps would exclude them from the only regulatory definition of "surface water" provided under the Water Quality Control Act at 12-5-31(6)(5) and in the rules at 391-3-6.07(2)(e).

However, and without debating whether these particular perched seeps are or are not subject to ISWQC, Thermo King proposes to address the area where detected VOC concentrations in seep samples exceed ISWQC by enacting a physical corrective action (an engineering control) to control/preclude the surface expression of those seeps where VOC concentrations exceed ISWQC. Seep samples where constituents exceed ISWQC are confined to the gully where Seep C and Manson Branch #2 are located. Heavy rip rap will be placed in this erosional feature such that seep water flows below the rip rap surface. The rip rap blanket will extend laterally such that VOC concentrations in water that exits from the downstream rip rap base will be below ISWQC.

17. Table 5.3: *The Test Species NOAEL value listed for 1,1-Dichloroethene is incorrect. The correct value is 30 mg/kg-BW-day.*

Response to Comment 17*:*

The Test Species NOAEL value for 1,1-Dichloroethene was corrected to 30 mg/kg-BW-day in Table 5.3.

18. Table 5.4: *The Test Species NOAEL value listed for 1,1-Dichloroethene is incorrect. The correct value is 30 mg/kg-BW-day. The Raccoon TRV listed for 1,1-Dichloroethene is incorrect. The correct value is 16.3 mg/kg-BW-day.*

Response to Comment 18*:*

The Test Species NOAEL value for 1,1-Dichloroethene was corrected to 30 mg/kg-BW-day in Table 5.4. The Raccoon TRV for 1,1-Dichloroethene was corrected to 16.3 mg/kg-BW-day in Table 5.4 and Table 5.10.

Schedule:
According to the VRP, specific items are scheduled for submission prior to December 31, 2010 to complete the application. Please submit the following items with the revised VRP to be submitted within 30 days of receipt of this letter:

19. A Gantt chart schedule of implementation that includes dates for milestones, including semi-annual progress reports, submittal of a VRP CSR, and other submittals to EPD.

Response to Comment 19*:*

A Gantt chart schedule is attached.

20. *Copy of a proposed Uniform Environmental Covenant (a model covenant is attached for your use) for the qualifying property and list of names/contact information for adjoining properties with tax parcel ID numbers.*

***Response to Comment 20**:*

The proposed Uniform Environmental Covenant is being reviewed by legal counsel and will be incorporated in the completed VRP Application along with the tax parcel ID numbers for the adjoining properties will also be included in the Application.

***21.** Copy of a current title report for the qualifying property.*

Response to Comment 21:

A current title report is being researched and will be included in the Completed VRP Application.

***22.** A cost estimate for implementing the Voluntary Remediation Plan.*

Response to Comment 22:

A cost estimate for implementing the Voluntary Remediation Plan is included in this revision of the January 29, 2010 Application.

***23.** In accordance with Section 12-8-108(1) of the VRPA, the application must state the site delineation concentration criteria for the site in tabular and narrative form. While the VRP references an attached Table, none of the column headings specify the "delineation concentration criteria."*

Response to Comment 23:

While not specified in Section 12-8-108(1) that the Application must state the site delineation criteria in tabular and narrative form, the delineation of constituents released at the site was provided in the Revised CSR. Volatile organic compounds in surface (0 to 2 feet) and subsurface (greater than 2 feet) soils and groundwater have been delineated under HSRA Rules (391-3-19-.06(3)(b)2) on the basis of non-detection of constituents above laboratory quantitation limits. Background for anthropogenic organic constituents is non-detect and delineation for soil and groundwater is shown on Figures 4.1 to 4.4 and Figures 4.7 and 4.8. The delineation criteria is also noted on Tables 4.2A, 4.3A, and 4.5A. This delineation is equivalent to VRP delineation criteria 12-8-108(1)(A), background concentrations.

***24.** In accordance with Section 12-8-108(6) of the VRPA, the application must state the cleanup standards you will certify to, in narrative and tabular form, and a discussion of the actions to bring the site into compliance with said cleanup standards. While the VRP references an attached Table, it is not clear which cleanup standards the qualifying property is proposing.*

Response to Comment 24:

Proposed Cleanup Standards

Surface Soil and Subsurface Soil
In accordance with VRP Cleanup Standards for Soil (12-8-108(5)) Site-specific Type 4 RRS with VRP-allowed controls are proposed as the cleanup standards for VOC-impacted surface and subsurface soils.

Surface and subsurface soils outside of the building footprint comply with RRS. Surface and subsurface soils beneath portions of the building footprint are compliant with site-specific Type 4 RRS with controls as provided under the VRP. No complete exposure pathways exist under current conditions beneath the manufacturing building floor slab. Engineering controls will be used to assure that the incomplete exposure pathway is maintained, i.e., compliance with site-specific Type 4 RRS will be maintained. The engineering controls are such that the floor slab overlying the area of impacted soils will be designated as an exposure barrier and any future facility operations that require penetration of that "barrier" will be conducted using a health and safety plan prepared specifically for the proposed barrier affecting activity. Any floor slab penetrations will be repaired in a manner consistent with its designation as an exposure barrier.

Groundwater
Site-specific Type 4 RRS with VRP-allowed controls is proposed for the cleanup standard for groundwater. The Uppermost water-bearing zone flows to the east and discharges to surface seeps along the eroded slope above the west bank of Manson Branch. There is no complete direct exposure pathway to human receptors from the Uppermost groundwater. Future exposure will be managed under institutional controls to restrict use of site groundwater and the execution of a covenant restricting such use in conformance with the Georgia Environmental Covenants Act will be used to maintain compliance. Vapors from the VOCs in the Uppermost groundwater do not present an unacceptable risk to human health as demonstrated by the Vapor Intrusion model. As such, there is no complete exposure pathway to human health from the Uppermost groundwater. Ecological receptors may have a complete exposure pathway to the Uppermost groundwater as it discharges to the hillside seeps. Only two seeps along an eroded hillside gully exhibit VOC concentrations that exceed the ISWQS; the remaining seeps are either non-detect for VOCs or have concentrations well below the ISWQS for VOCs. Engineering controls will be used to eliminate the surface-water exposure pathway to these two seeps and assure that the incomplete exposure pathway is maintained, i.e., compliance with site-specific Type 4 RRS with controls.

The Intermediate water-bearing zone flows toward the interior of the site and beyond to the southwest toward the Ogeechee River. There is currently no direct exposure pathway to human or ecological receptors from the Intermediate groundwater and it is, therefore, compliant with site-specific Type 4 RRS with controls as provided under the VRP. A fate and transport model will be used to demonstrate that groundwater concentrations will remain compliant with drinking-water based criteria at the designated hypothetical point of exposure as specified in accordance with the VRPA. Groundwater monitoring and institutional controls to restrict use of site groundwater and execution of a covenant restricting such use will be used to maintain compliance. All environmental sampling and any additional subsurface investigation will continue to be conducted under the direction of site-specific health and safety plans. Groundwater quality will be monitored per the Remediation Plan.

While not required at this time, the following items are required to complete your application and should be included in the Gantt chart schedule required in Item 19. It is recommended that these items be submitted by no later than September 1, 2010.

25. *A round of groundwater sampling results completed within the last six months.*

Response to Comment 25*:*

Groundwater samples will be collected and analyzed within six months of submittal of the completed VRP Application.

26. *In accordance with Section 12-8-108(7) of the VRPA, a fate and transport model must be included in the application as recognized by the USEPA or USGS, including a table showing the most probable representative values for model parameters as adopted by the board. Please include regulatory citations for the model parameters used.*

Response to Comment 26:

The fate and transport model references will be documented and included in the completed VRP Application.

27. *An updated groundwater and surface water usage figure showing the area of release to 1,000-feet downgradient.*

Response to Comment 27*:*

An updated groundwater and surface water usage map will be prepared and submitted with the completed VRP Application.

28. *An updated potentiometric map including point of demonstration (POD) wells to monitor both aquifers.*

Response to Comment 28

Updated potentiometric surface maps of the Uppermost and the Intermediate water-bearing zones will be prepared and will include the POD wells and submitted in the completed VRP Application.

TABLES

Table 4.2A: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SURFACE SOIL WITH DELINEATION CRITERIA

REGULATED SUBSTANCE DETECTED IN SURFACE SOIL	VRP Delineation Criteria 12-8-108(1)(A) Site Background Concentrations
Volatile Organic Compounds SW8260B - (µg/kg)	
1,1,2-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits
1,1,1-Trichloroethane	
1,1-Dichloroethene	
1,4-Dioxane	
cis-1,2-Dichloroethene	
Ethylbenzene	
Isopropylbenzene	
m+p-Xylene	
Tetrachloroethene	
Trichloroethene	
Total Xylenes	

DELINEATION CRITERIA

The delineation of regulated substances released at the site was provided in the Revised CSR. Volatile organic compounds in surface (0 to 2 feet) have been delineated under HSRA Rules (391-3-19-.06(3)(b)2) on the basis of non-detection of these regulated substances above laboratory quantitation limits. Background for anthropogenic organic constituents is non-detect. This delineation is equivalent to VRP delineation criteria 12-8-108(1)(A), background concentrations.

Table 4.3A: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL WITH DELINEATION CRITERIA

REGULATED SUBSTANCE DETECTED IN SUBSURFACE SOIL	VRP Delineation Criteria 12-8-108(1)(A) Site Background Concentrations
Volatile Organic Compounds SW8260B - (µg/kg)	
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits
1,1-Dichloroethene	
cis-1,2-Dichloroethene	
Ethylbenzene	
m+p-Xylene	
Tetrachloroethene	
Trichloroethene	

DELINEATION CRITERIA

The delineation of regulated substances released at the site was provided in the Revised CSR. Volatile organic compounds in subsurface soil (greater than 2 feet) have been delineated under HSRA Rules (391-3-19-.06(3)(b)2) on the basis of non-detection of these regulated substances above laboratory quantitation limits. Background for anthropogenic organic constituents is non-detect. This delineation is equivalent to VRP delineation criteria 12-8-108(1)(A), background concentrations.

TABLE 4.5A: SUMMARY OF REGULATED SUBSTANCES DETECTED
IN GROUND-WATER SAMPLES WITH DELINEATION CRITERIA

REGULATED SUBSTANCE DETECTED IN GROUNDWATER	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**
Volatile Organic Compounds SW8260B - (µg/L)	
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits
1,1-Dichloroethene	
Chloroform	
cis-1,2-Dichloroethene	
Methylene chloride	
Toluene	
Trichloroethene	

DELINEATION CRITERIA

The delineation of regulated substances released at the site was provided in the Revised CSR. Volatile organic compounds in groundwater have been delineated under HSRA Rules (391-3-19-.06(3)(b)3) on the basis of non-detection of these regulated substances above laboratory quantitation limits. Background for anthropogenic organic constituents is non-detect. This delineation is equivalent to VRP delineation criteria 12-8-108(1)(A), background concentrations.

TABLE 5.3
SHORT TAILED SHREW TOXICITY REFERENCE VALUES

ANALYTE	NOAEL (mg/kg-BW-day)	TEST SPECIES	EFFECT	BODY WEIGHT OF TEST SPECIES (kg)	SHORT-TAILED SHREW TRV (mg/kg-BW-day)	REFERENCE
1,1-Dichloroethene	30	rat	Chronic NOAEL	0.35	66	Sample et al., 1996
1,1,1-Trichloroethane	1,000	mouse	Chronic NOAEL	0.035	1,216	Sample et al., 1996
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.4	mouse	Subchronic NOAEL	0.03	1.64	Sample et al., 1996
Trichloroethene	0.7	mouse	Subchronic NOAEL	0.03	0.82	Sample et al., 1996

Notes:
mg/kg-BW-day = milligrams per kilogram body weight per day
kg = kilogram
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Value
NA = Not available

Prepared By: NSR 2/26/10
Checked By: EFC 2/26/10

TABLE 5.4
RACCOON TOXICITY REFERENCE VALUES

ANALYTE	NOAEL (mg/kg-BW-day)	TEST SPECIES	EFFECT	BODY WEIGHT OF TEST SPECIES (kg)	RACCOON TRV (mg/kg-BW-day)	REFERENCE
1,1-Dichloroethene	30	Rat	Chronic NOAEL	0.35	16	Sample et al., 1996
1,1,1-Trichloroethane	1000	Mouse	Chronic NOAEL	0.035	310	Sample et al., 1996
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.4	Mouse	Subchronic NOAEL	0.03	0.41	Sample et al., 1996
Trichloroethene	0.7	Mouse	Subchronic LOAEL	0.03	0.21	Sample et al., 1996

Notes:
mg/kg-BW-day = milligrams per kilogram body weight per day
kg = kilogram
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Value
NA = Not available

Prepared By: NSR 2/26/10
Checked By: EFC 2/26/10

FIGURES

A
WEST

A'
EAST

ELEVATION IN FEET (NAVD)

FORMER ABOVEGROUND STORAGE TANK
FORMER SOUTH SETTLING POND (OFFSET)
MANUFACTURING BUILDING
(OFFSET) STB-1
MW-1
MW-22
SB-114
MW-3
MW-20
SB-113
MW-5
MW-24
MW-19
MW-14
SEEP C (OFFSET)
MANSON BRANCH #2 (OFFSET)
SEEP H (OFFSET)
SEEP 2
SEEP B
MANSON BRANCH
MW-16
MW-18
THERMO KING PROPERTY LINE

SB-114 (0-2) TCE 130 ug/kg
SB-113 (0-2) VOCs ND
SB-113 (4-6) TCE 9.4 ug/kg
SB-114 (22-24) VOCs ND
SB-113 (40-42) VOCs ND
SB-114 (42-44) VOCs ND
SB-114 (44-46) 111TCA 270 ug/L; 11DCE 72 ug/L; C 12 DCE 37 ug/L; TCE 700 ug/L
MW-5 (49-54) TCE 180 ug/L; 111TCA <12 ug/L; 11DCE <12 ug/L; C 12 DCE <6.2 ug/L
SEEP C (2/27/08) C 12 DCE 11 ug/L; 11DCE 99 ug/L; 111TCA 49 ug/L; TCE 670 ug/L
MW-19 (36.2-46.2) TCE 1500 ug/L; C 12 DCE <50 ug/L
MASON BRANCH #2 (2/27/08) C 12 DCE 89 ug/L; 11DCE 11 ug/L; 111TCA 8.4 ug/L; TCE 310 ug/L
SEEP H (2/26/08) C 12 DCE <2.7 ug/L; TCE 5.1 ug/L
SEEP #2 (2/27/08) VOCs ND
MW-5 (55-60) 111TCA <5 ug/L; 11DCE <5 ug/L; TCE <5 ug/L; CHLFM <5 ug/L
MW-6 (68.4-78.4) VOCs ND
SB-114 (60-65) 111TCA 2.7 ug/L; TCE 1.1 ug/L; CHLFM 1.0 ug/L
SB-113 (57-62) CHLFM 1.2 ug/L; TCE 20 ug/L
SEEP B (11/17/04) 111 TCA 10 ug/L; C 12 DCE 16 ug/L; TCE 61 ug/L
MW-16 (6.7-11.7) VOCs ND
MW-22 (98.9-113.9) VOCs ND
MW-20 (91.7-106.7) C 12 DCE 320 ug/L
MW-24 (136.9-146.7) VOCs ND
MW-34 (77.3-86.23) C 12 DCE 410 ug/L; TCE 6,800 ug/L
MW-18 (27-42) VOCs ND

REDDISH-BROWN TO ORANGE SILTY CLAYEY FINE TO MEDIUM SAND TO SANDY CLAY
BROWNISH-RED AND ORANGE, SILTY, FINE TO MEDIUM SAND
ORANGE TO WHITE TO YELLOWISH-BROWN MEDIUM SAND
CLAY STONE
ORANGE TO WHITE TO YELLOWISH-BROWN MEDIUM SAND
BROWN CLAY
YELLOWISH TO GRAYISH BROWN CLAY
YELLOW SAND
WHITE TO GRAY TO BROWN FINE TO COARSE SAND
TAN AND WHITE AND LIGHT GRAY CLAY
BLUE-GRAY CLAY TO SANDY SILTY CLAY
BLUE-GRAY SILTY CLAYEY FINE TO MEDIUM SAND
BLUE-GRAY CLAY
DARK GRAY SILT WITH FOSSILS
DARK GRAY CLAYEY SILT WITH SAND SEAM
BLUE-GRAY SANDY SILTY CLAY
DARK GRAY SILTY CLAY WITH FOSSILS
DARK GRAY CLAYEY SILT WITH FOSSILS
GREEN TO DARK GRAY SILT WITH CLAY WITH FOSSILS AND SOME SAND
DARK GRAY MICRITIC LIMESTONE
DARK GREENISH-GRAY SILTY CLAY WITH SAND AND FOSSILS
GRAY LIMESTONE
GRAY LIMESTONE
CLAYEY SANDY SILT WITH FOSSILS AND THIN LIMESTONE LENSES
SANDY CLAYEY SILT WITH FOSSILS
GRAY CLAYEY SILT WITH LIMESTONE FRAGMENTS
GREENISH-GRAY SILTY CLAY
DARK GRAY SAND WITH FOSSILS
GREENISH GRAY VERY FINE SANDY SILT
GREENISH-GRAY CLAYEY SILTY FINE TO MEDIUM SAND
GREENISH-GRAY FINE SANDY SILTY CLAY WITH SOME FOSSILS
DARK GREENISH-GRAY CLAYEY SILTY FINE TO COARSE SAND
GREENISH-GRAY FINE SANDY SILT
DARK BROWNISH-GRAY SILTY FINE SAND (ALLUVIAL DEPOSITS)
GRAY-BROWN TO BLUE-GREEN SILTY SANDY CLAY TO CLAYEY FINE SAND TO BLUE-GRAY SAND
BLUE-GRAY TO GREENISH- GRAY SANDY SILTY CLAY
BLUE-GRAY TO GREENISH-GRAY SILTY TO CLAYEY FINE TO VERY COARSE SAND WITH SOME SHELL FRAGMENTS
BLUE-GRAY SANDY SILTY CLAY
GREENISH-GRAY SANDY CLAYEY SILT TO SILTY CLAY WITH SOME FOSSILS

B.T. 78'
B.T. 78.5'
B.T. 78.5'
B.T. 63.5'
B.T. 58'
B.T 47.0'
B.T. 107.0'
B.T. 88.0'
B.T. 116'
B.T. 177'
B.T. 147.0'
B.T. 12.0' REFUSAL
B.T. 48.0' REFUSAL

UPPERMOST WATER BEARING ZONE
PERCHING AND CONFINING LAYER
INTERMEDIATE WATER BEARING ZONE
TWIGGS CLAY FORMATION MEMBER
LOWER WATER-BEARING ZONE

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 12, 2004
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- (10) INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- S POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND NOT DETECTED
- TCE TRICHLOROETHENE
- 111 TCA 111-TRICHLOROETHANE
- 11 DCE 11-DICHLOROETHENE
- C 12 DCE CIS-12-DICHLOROETHENE
- CHLFM CHLOROFORM
- TCE 130 ug/kg (0-2) CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN IN FEET
- ug/kg= MICROGRAMS PER KILOGRAM
- ug/L= MICROGRAMS PER LITER
- NAVD NORTH AMERICAN VERTICAL DATUM 1988
- DIRECTION OF GROUNDWATER FLOW
- UPPERMOST WATER-BEARING ZONE
- INTERMEDIATE WATER-BEARING ZONE
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

LEGEND

1. THE ISOCONCENTRATION CONTOURS OF TOTAL VOLATILE ORGANIC COMPOUNDS (VOCS) INDICATE THE VERTICAL EXTENT OF VOCS IN SOIL ABOVE GROUNDWATER
2. VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.
3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

SCALE IN FEET
0 200
10

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DESIGNED C. KRAMBIS
DRAWN T. GLADSTONE
CHECKED R. QUINN
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HYDROGEOLOGIC PROFILE A–A'

FIGURE 4.1

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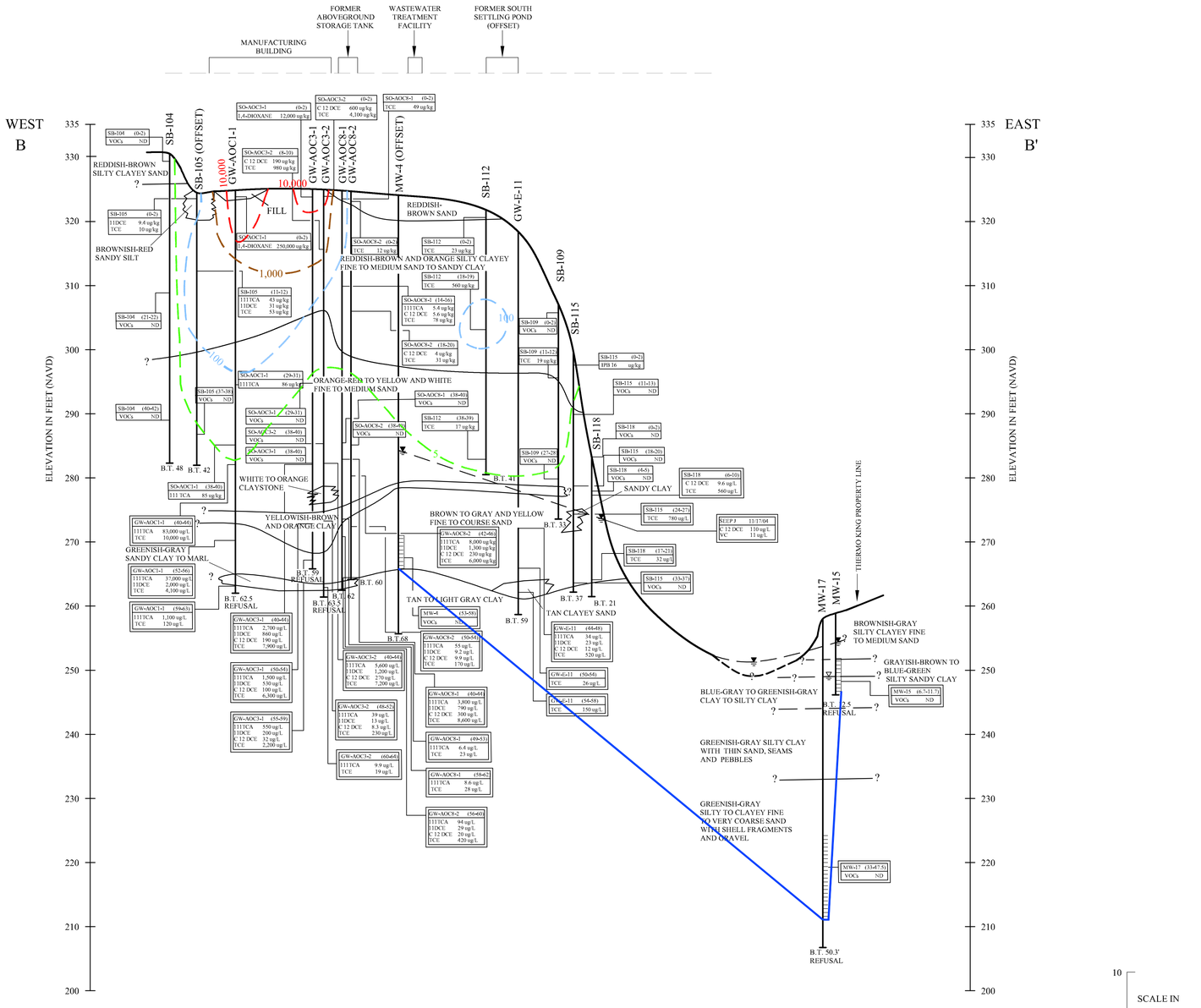

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 12, 2004
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- 10,000 / 1000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- IPB — ISOPROPYLBENZENE
- VC — VINYL CHLORIDE
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN IN FEET
- ug/kg= MICROGRAMS PER KILOGRAMS
- ug/L= MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTES:

1. THE ISOCONCENTRATION CONTOURS OF TOTAL VOLATILE ORGANIC COMPOUNDS (VOCS) INDICATE THE VERTICAL EXTENT OF VOCS IN SOIL ABOVE GROUNDWATER
2. VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.
3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

SCALE IN FEET
10
0
200

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HYDROGEOLOGIC PROFILE B–B'

FIGURE 4.2

SCALE AS SHOWN
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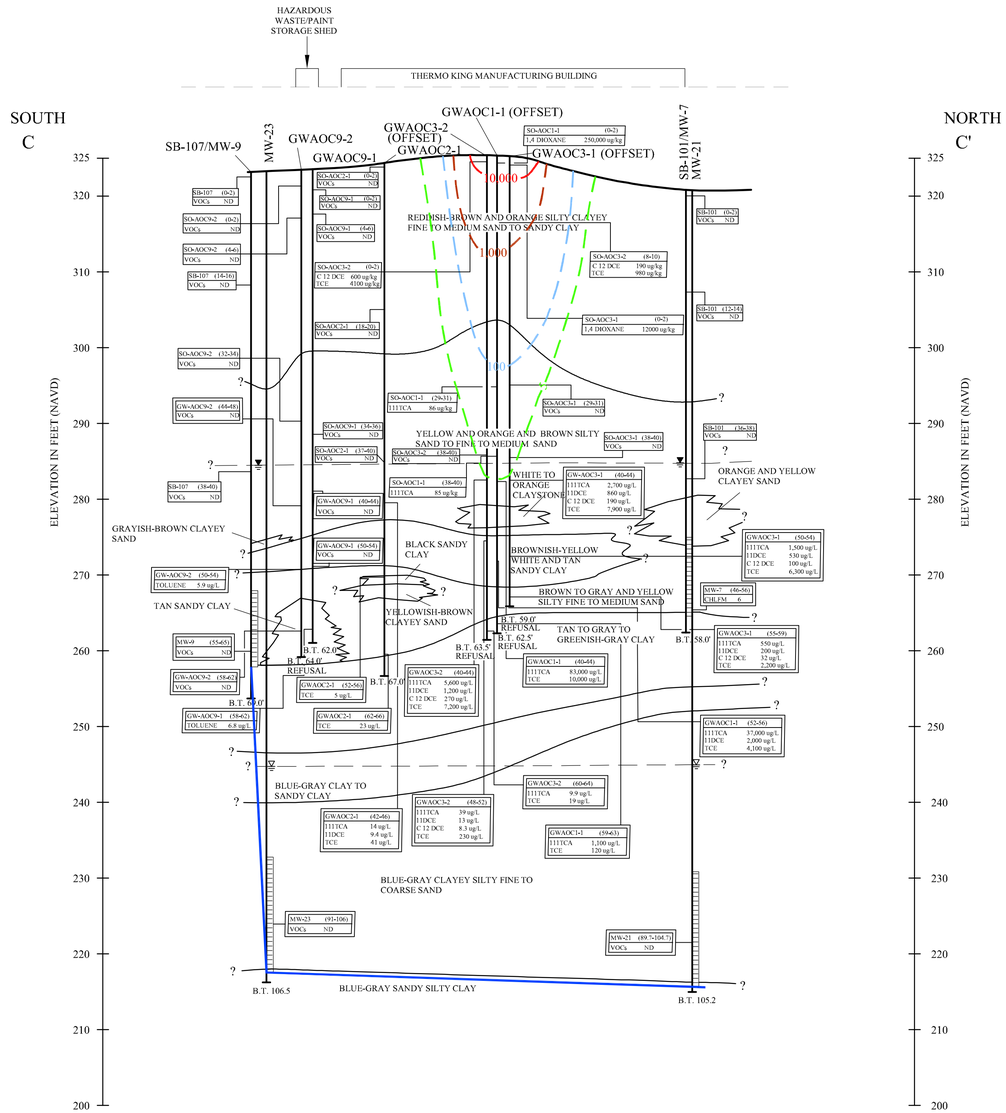

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 12, 2004
- 10,000 / 1000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
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- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN
- ug/kg= MICROGRAMS PER KILLOGRAMS
- ug/L= MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTES:

1. THE ISOCONCENTRATION CONTOURS OF TOTAL VOLATILE ORGANIC COMPOUNDS (VOCS) INDICATE THE VERTICAL EXTENT OF VOCS IN SOIL ABOVE GROUNDWATER
2. VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.
3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

10
SCALE IN FEET
0 200

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IN CHARGE D. ALCOTT
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HYDROGEOLOGIC PROFILE C–C'

FIGURE 4.3

SCALE: AS SHOWN
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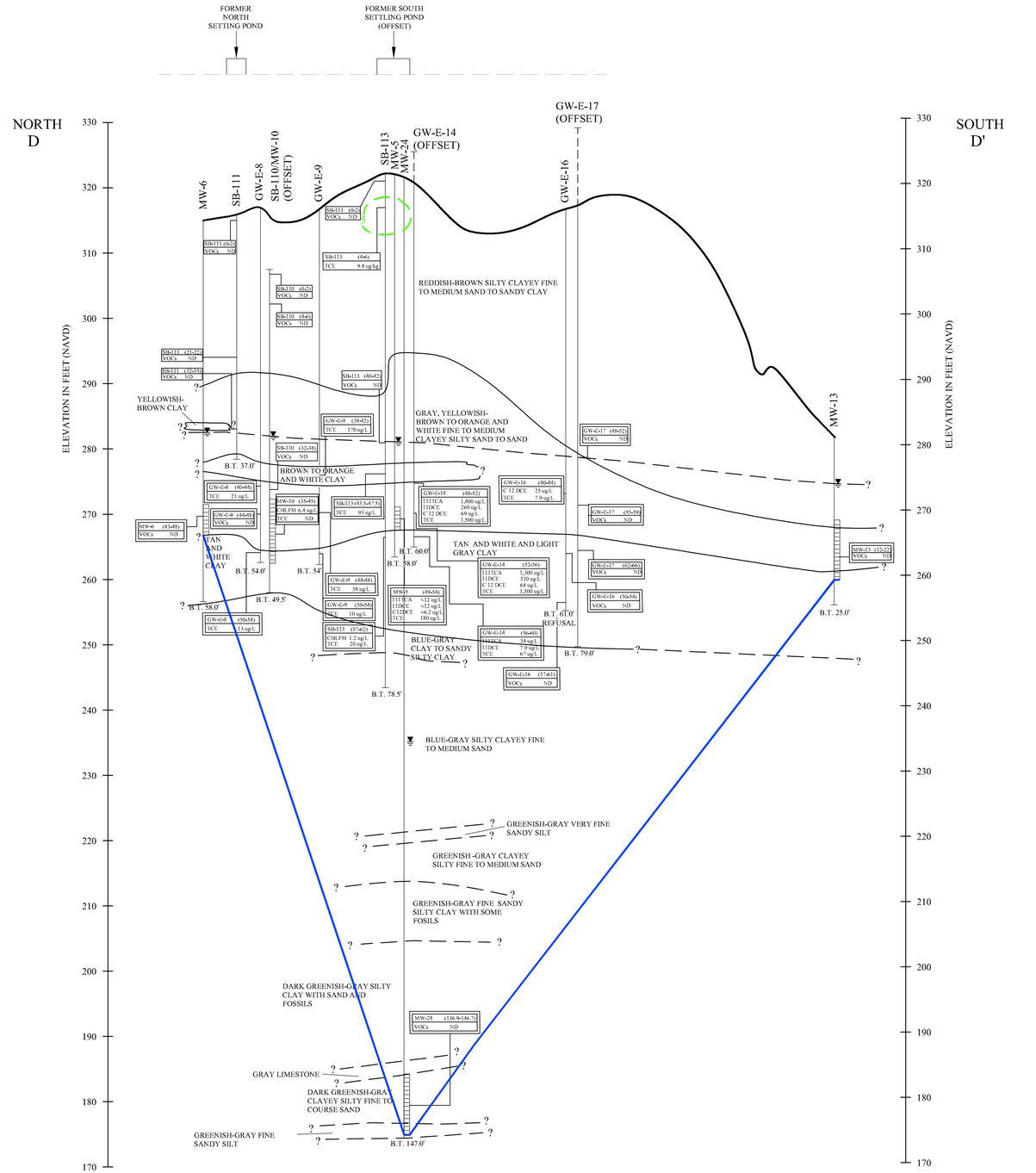

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 12, 2004
- 10,000 / 1000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- GROUND SURFACE
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- CHLFM — CHLOROFORM
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED)AND INTERVAL WELL SCREEN IN FEET
- ug/kg= MICROGRAMS PER KILLOGRAMS
- ug/L= MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTES:

1. THE ISOCONCENTRATION CONTOURS OF TOTAL VOLATILE ORGANIC COMPOUNDS (VOCS) INDICATE THE VERTICAL EXTENT OF VOCS IN SOIL ABOVE GROUNDWATER
2. VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.
3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

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REV	DATE	BY	SUB	APP	DESCRIPTION

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DRAWN T. GLADSTONE
CHECKED R. QUINN
IN CHARGE D. ALCOTT
DATE 3/9/2010

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HYDROGEOLOGIC PROFILE D–D'

FIGURE 4.4

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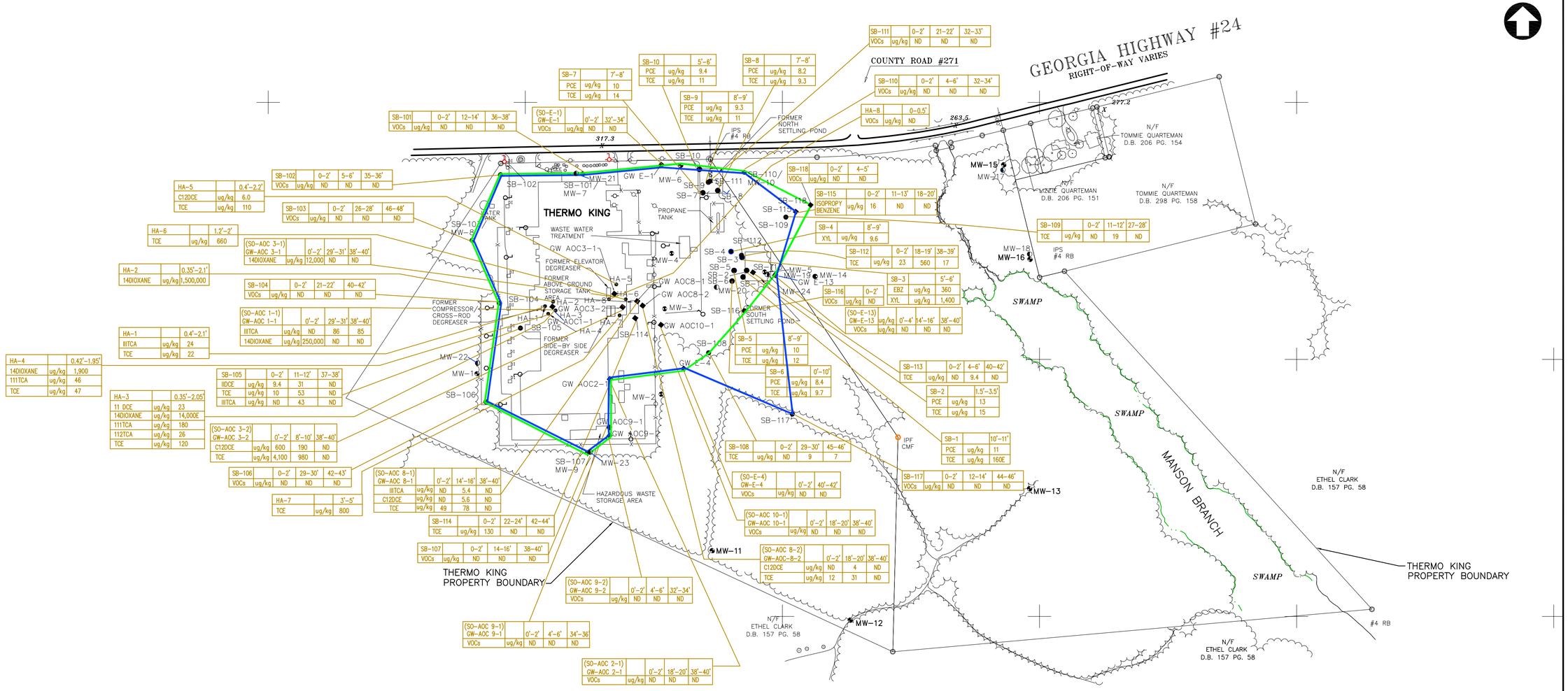

SB-101		0-2'	12-14'	36-38'
VOCs	ug/kg	ND	ND	ND

(SO-E-1) GW-E-1		0'-2'	32'-34'
VOCs	ug/kg	ND	ND

SB-7		7'-8'
PCE	ug/kg	10
TCE	ug/kg	14

SB-10		5'-6'
PCE	ug/kg	9.4
TCE	ug/kg	11

SB-9		8'-9'
PCE	ug/kg	9.3
TCE	ug/kg	11

SB-8		7'-8'
PCE	ug/kg	8.2
TCE	ug/kg	9.3

SB-111		0-2'	21-22'	32-33'
VOCs	ug/kg	ND	ND	ND

SB-110		0-2'	4-6'	32-34'
VOCs	ug/kg	ND	ND	ND

HA-8		0-0.5'
VOCs	ug/kg	ND

SB-102		0-2'	5-6'	35-36'
VOCs	ug/kg	ND	ND	ND

HA-5		0.4'-2.2'
C12DCE	ug/kg	6.0
TCE	ug/kg	110

SB-103		0-2'	26-28'	46-48'
VOCs	ug/kg	ND	ND	ND

HA-6		1.2'-2'
TCE	ug/kg	660

(SO-AOC 3-1) GW-AOC 3-1		0'-2'	29'-31'	38'-40'
14DIOXANE	ug/kg	12,000	ND	ND

HA-2		0.35'-2.1'
14DIOXANE	ug/kg	1,500,000

SB-104		0-2'	21-22'	40-42'
VOCs	ug/kg	ND	ND	ND

(SO-AOC 1-1) GW-AOC 1-1		0'-2'	29'-31'	38'-40'
IIITCA	ug/kg	ND	86	85
14DIOXANE	ug/kg	250,000	ND	ND

HA-1		0.4'-2.1'
IIITCA	ug/kg	24
TCE	ug/kg	22

HA-4		0.42'-1.95'
14DIOXANE	ug/kg	1,900
111TCA	ug/kg	46
TCE	ug/kg	47

SB-105		0-2'	11-12'	37-38'
IIDCE	ug/kg	9.4	31	ND
TCE	ug/kg	10	53	ND
IIITCA	ug/kg	ND	43	ND

HA-3		0.35'-2.05'
11 DCE	ug/kg	23
14DIOXANE	ug/kg	14,000E
111TCA	ug/kg	180
112TCA	ug/kg	26
TCE	ug/kg	120

(SO-AOC 3-2) GW-AOC 3-2		0'-2'	8'-10'	38'-40'
C12DCE	ug/kg	600	190	ND
TCE	ug/kg	4,100	980	ND

SB-106		0-2'	29-30'	42-43'
VOCs	ug/kg	ND	ND	ND

HA-7		3'-5'
TCE	ug/kg	800

(SO-AOC 8-1) GW-AOC 8-1		0'-2'	14'-16'	38'-40'
IIITCA	ug/kg	ND	5.4	ND
C12DCE	ug/kg	ND	5.6	ND
TCE	ug/kg	49	78	ND

SB-114		0-2'	22-24'	42-44'
TCE	ug/kg	130	ND	ND

SB-107		0-2'	14-16'	38-40'
VOCs	ug/kg	ND	ND	ND

(SO-AOC 9-1) GW-AOC 9-1		0'-2'	4'-6'	34'-36
VOCs	ug/kg	ND	ND	ND

(SO-AOC 9-2) GW-AOC 9-2		0'-2'	4'-6'	32'-34'
VOCs	ug/kg	ND	ND	ND

(SO-AOC 2-1) GW-AOC 2-1		0'-2'	18'-20'	38'-40'
VOCs	ug/kg	ND	ND	ND

SB-118		0-2'	4-5'
VOCs	ug/kg	ND	ND

SB-115		0-2'	11-13'	18-20'
ISOPROPYBENZENE	ug/kg	16	ND	ND

SB-4		8'-9'
XYL	ug/kg	9.6

SB-112		0-2'	18-19'	38-39'
TCE	ug/kg	23	560	17

SB-3		5'-6'
EBZ	ug/kg	360
XYL	ug/kg	1,400

SB-116		0-2'
VOCs	ug/kg	ND

(SO-E-13) GW-E-13		0'-4'	14'-16'	38'-40'
VOCs	ug/kg	ND	ND	ND

SB-5		8'-9'
PCE	ug/kg	10
TCE	ug/kg	12

SB-6		0'-10'
PCE	ug/kg	8.4
TCE	ug/kg	9.7

SB-113		0-2'	4-6'	40-42'
TCE	ug/kg	ND	9.4	ND

SB-2		1.5'-3.5'
PCE	ug/kg	13
TCE	ug/kg	15

SB-1		10'-11'
PCE	ug/kg	11
TCE	ug/kg	160E

SB-108		0-2'	29-30'	45-46'
TCE	ug/kg	ND	9	7

SB-117		0-2'	12-14'	44-46'
VOCs	ug/kg	ND	ND	ND

(SO-E-4) GW-E-4		0'-2'	40'-42'
VOCs	ug/kg	ND	ND

(SO-AOC 10-1) GW-AOC 10-1		0'-2'	18'-20'	38'-40'
VOCs	ug/kg	ND	ND	ND

(SO-AOC 8-2) GW-AOC-8-2		0'-2'	18'-20'	38'-40'
C12DCE	ug/kg	ND	4	ND
TCE	ug/kg	12	31	ND

SB-109		0-2'	11-12'	27-28'
TCE	ug/kg	ND	19	ND

LEGEND

MW-1	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
MW-7	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
MW-14	GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22 AND MW-23)
MW-24	GROUND-WATER MONITORING WELL INSTALLED IN THE LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
GW E-1	SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, [UPPERMOST WATER-BEARING ZONE]
SB-7	SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003 AND 2005 SB-1 TO SB-10, SB-101 TO SB-112, SB-116 AND SB-117 AND HA-1 TO HA-8, Kd-1 TO Kd-12) (Soil borings for soil sampling SB-101, SB-103, SB-107, and SB-110 were completed as monitoring wells MW-7, MW-8, MW-9, and MW-10)

VOCs	VOLATILE ORGANIC COMPOUNDS
ug/kg	MICROGRAMS PER KILOGRAMS
IIITCA	I,I,I-TRICHLOROETHANE
TCE	TRICHLOROETHENE
IIDCE	I,I-DICHLOROETHENE
CI2DCE	CIS-I,2-DICHLOROETHENE
PCE	TETRACHLOROETHENE
XYL	XYLENES
EBZ	ETHYLBENZENE
ND	NOT DETECTED
NS	NOT SAMPLED
II2TCA	I,I,2-TRICHLOROETHANE
0'-2'	SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
110	CONSTITUENT CONCENTRATION
E	ESTIMATED CONCENTRATION; RESULT EXCEEDS THE CALIBRATION RANGE

BUSH
BUSHLINE
TREE
TREELINE
HEDGE
STREAM
FENCE
DROP INLET
LIGHT POLE
PROPERTY BOUNDARY
EXTENT OF VOCs IN SURFACE SOILS (0-2 FEET)
EXTENT OF VOCs IN SUBSURFACE SOILS (>2 FEET)

VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTE: SEE FIGURE 3.1 FOR Kd BORING LOCATIONS

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING INC., LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN SOIL

FIGURE 4.7

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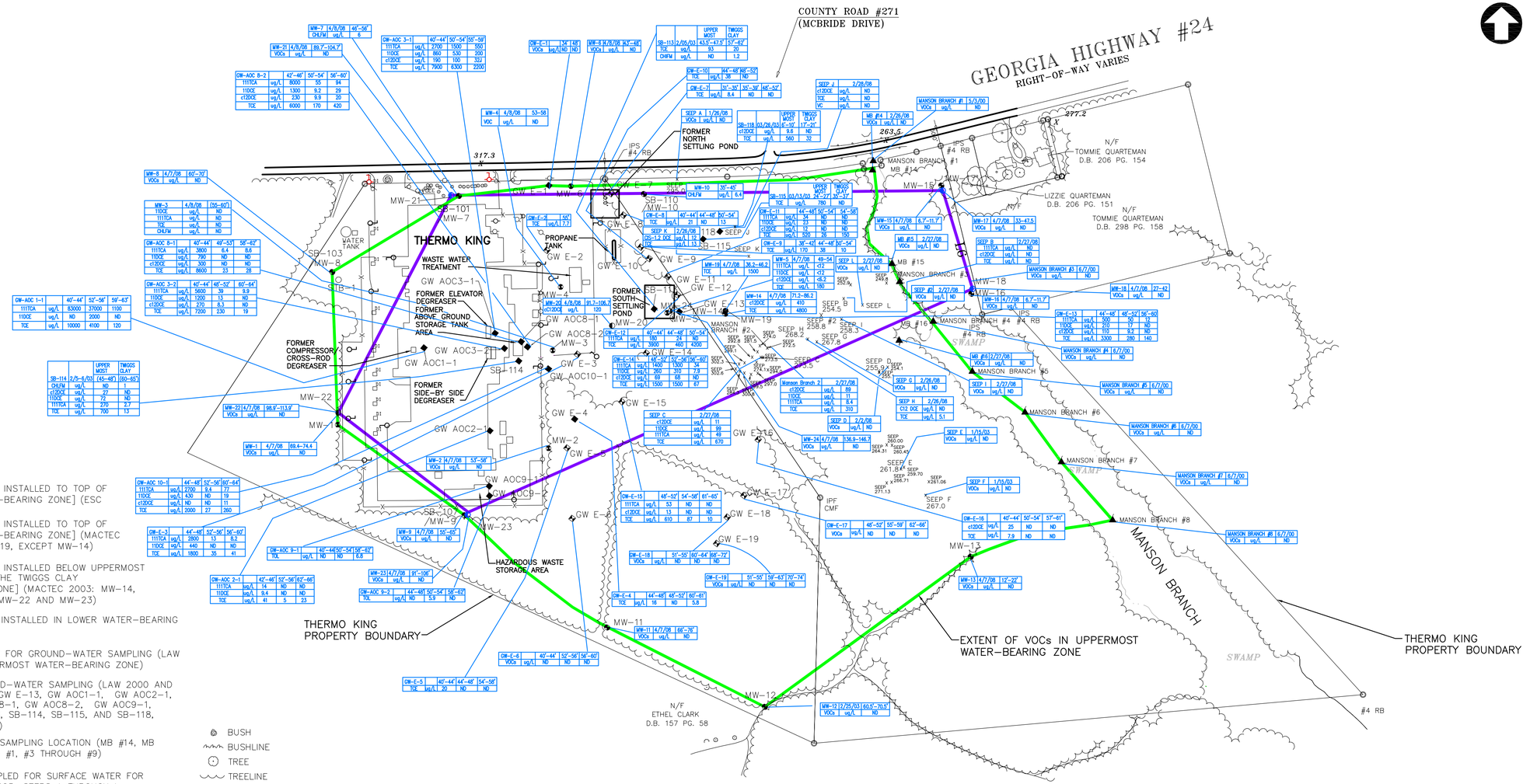

LEGEND

- MW-1 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
- MW-7 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
- MW-14 — GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22 AND MW-23)
- MW-24 — GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004: MW-24)
- GW-E-2 — DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
- GW-E-1 — SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16, MANSON BRANCH #1, #3 THROUGH #9)
- X SEEP A 299.0 — WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: SEEPS A THROUGH L, MANSON BRANCH #2, SEEP #2)

ND	NOT DETECTED
VOC	VOLATILE ORGANIC COMPOUNDS
TCE	TRICHLOROETHENE
111TCA	I,I,I-TRICHLOROETHANE
IIDCE	I,I-DICHLOROETHENE
c12DCE	CIS-12-DICHLOROETHENE
t12DCE	TRANS-1,2-DICHLOROETHENE
TOL	TOLUENE
CHLFM	CHLOROFORM
VC	VINYL CHLORIDE
ug/L	MICROGRAMS PER LITER
40'-44'	SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
27	CONSTITUENT CONCENTRATION

- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- WATER
- FENCE
- DI DROP INLET
- x SEEP 299.5 WATER SEEP WITH ELEVATION
- PROPERTY BOUNDARY
- EXTENT OF VOCs IN UPPERMOST WATER-BEARING ZONE
- EXTENT OF VOCs IN INTERMEDIATE WATER-BEARING ZONE

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTE: MOST CURRENT ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000, 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN GROUND WATER

FIGURE 4.8

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RISK REDUCTION STANDARDS

Table K-1
Type 1 through Type 4 Ground Water RRS, mg/L

Parameter	Chronic Reference Dose Oral (mg/kg/day)	Chronic Reference Dose Inhalation (mg/kg/day)	Cancer Slope Factor Oral (mg/kg/day)-1	Cancer Slope Factor Inhalation (mg/kg/day)-1	Weight of Evidence	Source for Chronic Rfds and CSFs	Type 1/ Type 3 (mg/L)		Type 2 Standard (mg/L) Adult Noncarcinogenic	Type 2 Standard (mg/L) Adult Carcinogenic	Type 2 Standard (mg/L) Child Noncarcinogenic	Type 2 Standard (mg/L) Child Carcinogenic	Type 2 Overall	Overall Residential	Type 4 Site-specific (mg/L) (a) Occupational Noncarcinogenic	Type 4 Site-specific (mg/L) (a) Occupational Carcinogenic	Type 4 Overall	Overall Nonresidential
1,1,1-Trichloroethane	2.0E+00	1.4E+00	ND	ND	D	IRIS	0.2		9.0	ND	2.7	ND	**2.7**	**2.7**	25.1	ND	25.1	25.1
1,1,2-Trichloroethane	4.0E-03	ND	5.7E-02	5.6E-02	C	IRIS	0.005		0.15	0.0025	0.063	0.0038	**0.0025**	**0.005**	0.41	0.0085	0.0085	0.0085
1,1-Dichloroethene	5.0E-02	5.7E-02	ND	ND	C	IRIS	0.007		0.34	ND	0.10	ND	**0.10**	**0.10**	0.95	ND	0.95	0.95
1,4-Dioxane	1.0E-01	1.0E+00	1.1E-02	2.7E-02	B2	IRIS, Cal EPA, ATSDR	0.005	DL	2.4	0.0058	0.89	0.0085	**0.0058**	**0.0058**	6.8	0.020	0.020	0.020
Chloroform	1.0E-02	2.8E-02	3.1E-02	8.1E-02	B2	IRIS, Cal EPA, ATSDR	0.08	Adopted 10-09*	0.13	0.0020	0.043	0.0029	**0.0020**	**0.08**	0.37	0.0066	0.0066	0.08
cis-1,2-Dichloroethene	1.0E-02	ND	ND	ND	D	PPRTV	0.07	Adopted 10-09	0.37	ND	0.16	ND	**0.16**	**0.16**	1.0	ND	1.0	1.0
Ethylbenzene	1.0E-01	2.9E-01	1.1E-02	8.8E-03	D	IRIS, Cal EPA	0.7		1.3	0.015	0.43	0.024	**0.015**	**0.70**	3.7	0.052	0.052	0.7
Isopropylbenzene (Cumene)	1.0E-01	1.1E-01	ND	ND	D	IRIS	0.005	DL	0.68	ND	0.21	ND	**0.21**	**0.21**	1.9	ND	1.9	1.9
Methylene chloride	6.0E-02	2.9E-01	7.5E-03	1.6E-03	B2	IRIS, ATSDR	0.005		1.1	0.054	0.37	0.092	**0.054**	**0.054**	3.0	0.18	0.18	0.18
Naphthalene	2.0E-02	8.6E-04	ND	1.2E-01	C	IRIS, Cal EPA	0.02		0.0062	0.0014	0.0018	0.0020	**0.0014**	**0.02**	0.017	0.0048	0.0048	0.020
Tetrachloroethene	1.0E-02	7.7E-02	5.4E-01	2.1E-02	B-C2	IRIS, Cal EPA, ATSDR	0.005		0.22	0.0013	0.079	0.0026	**0.0013**	**0.005**	0.62	0.0044	0.0044	0.005
Toluene	8.0E-02	1.4E+00	ND	ND	D	IRIS	1		2.3	ND	0.88	ND	**0.88**	**1.0**	6.4	ND	6.4	6.4
Trichloroethene	ND	ND	5.9E-03	7.0E-03	B2	Cal EPA	0.005		ND	0.021	ND	0.031	**0.021**	**0.021**	ND	0.070	0.070	0.070
Xylenes, mixed	2.0E-01	2.9E-02	ND	ND	NA	IRIS	10		0.20	ND	0.059	ND	**0.059**	**10**	0.57	ND	0.57	10

Source Description: IRIS - Integrated Risk Information System, USEPA.
ATSDR - Agency for Toxic Substances and Disease Registry
NCEA - National Center for Exposure Assessment, USEPA.
PPRTV - Provisional Peer Reviewed Toxicity Value
Cal EPA - California Environmental Protection Agency
Weight of Evidence from IRIS, 2009.
ND Toxicity values not available
NA Not available
(a) Volatilization factor for non-residential reduced by one-half from default because no showering or cooking occurs at the facility. Agreement from EPD on May 4, 2004.

Equation 2 (Noncarcinogens):

* Trihalomethanes [Proposed Concentration is 0.08 mg/L)

$$C = \frac{THI \times BW \times AT \times 365 days/year}{EF \times ED \times [(1/RfDi \times K \times IRa) + (1/RfDo \times IRw)]}$$

Equation 1 (Carcinogens):

$$C = \frac{TR \times BW \times AT \times 365 days/year}{EF \times ED \times [(SFi \times K \times IRa) + (SFo \times IRw)]}$$

Where:

	Type 2 Adult	Type 2 Parameters Child	Type 4 Site-specific Parameters
THI = Target Hazard Index =	1	1	1
BW = Body Weight =	70 kg	15 kg	70 kg
AT = Averaging Time =	30 years (noncarc.); 70 (carc.)	6 years (noncarc.); 70 (carcinogens)	25 years for noncarcinogens; 70 years for carcinogens
EF = Exposure Frequency =	350 days/year	350 days/year	250 day/year
EF = Exposure Frequency (Irrigation) =			
ED = Exposure Duration =	30 years	6 years	25 year
RfDi = Inhalation Reference Dose =	Chemical Specific	Chemical Specific	Chemical Specific
K = Volatilization Factor = 0.0005 x 1000 L/m3 =	0.5 L/m3	0.5 L/m3	0.25 L/m3 (a)
IRa = Inhalation Rate for Air =	20 m3/day	15 m3/day	20 m3/day
RfDo = Oral Reference Dose =	Chemical Specific	Chemical Specific	Chemical Specific
IRw = Ingestion Rate for Water =	2 L/day	1 L/day (EFS)	1 L/day
TR = Target Risk =	0.00001	0.00001	0.00001
CSFo = Oral Cancer Slope Factor =	Chemical Specific	Chemical Specific	Chemical Specific
CSFi = Inhalation Cancer Slope Factor =	Chemical Specific	Chemical Specific	Chemical Specific

Prepared by:EJS 9/9/09
Checked by: LMS 3/9/10

Table K-2
Type 1 and 3 Soil Calculations, mg/kg

SUBSTANCE	RFDO	RFDI	CSFO	CSFI	Source for Chronic Rfd and CSFs	Weight of Evidence	Volatilization Factor (m^3/kg)	Table 2 Appendix III	Appendix I	Type 1 GW x 100	Number 1	Risk-Based Residential Type 1 NC-Type 1	Risk-Based Residential Type 1 C-Type 1	Type 1 RRS	Overall Type 1 RRS	Risk-Based Nonresidential Type 3 NC-Type 3	Risk-Based Nonresidential Type 3 C-Type 3	Risk-Based Soil Type 3 RRS	Surface Soil Type 3 RRS	Subsurface Soil Type 3 RRS
1,1,1-Trichloroethane	2.0E+00	1.4E+00	ND	ND	IRIS	D	1.6E+03	ND	5.4E+00	2.0E+01	2.0E+01	1.0E+04	ND	1.0E+04	2.0E+01	1.1E+04	ND	1.1E+04	2.0E+01	2.0E+01
1,1,2-Trichloroethane	4.0E-03	ND	5.7E-02	5.6E-02	IRIS	C	8.8E+03	ND	5.0E-01	5.0E-01	5.0E-01	2.3E+07	1.7E+02	1.7E+02	5.0E-01	8.2E+03	2.2E+02	2.2E+02	5.0E-01	5.0E-01
1,1-Dichloroethene	5.0E-02	5.7E-02	ND	ND	IRIS	C	8.7E+02	ND	3.6E-01	7.0E-01	7.0E-01	2.4E+02	ND	2.4E+02	7.0E-01	2.5E+02	ND	2.5E+02	7.0E-01	7.0E-01
1,4-Dioxane	1.0E-01	1.0E+00	1.1E-02	2.7E-02	IRIS, Cal EPA, ATSDR	B2	2.1E+04	ND	1.3E-01	5.0E-01	5.0E-01	4.0E+04	1.4E+03	1.4E+03	5.0E-01	ND	5.2E+03	5.2E+03	5.0E-01	5.0E-01
Chloroform	1.0E-02	2.8E-02	3.1E-02	8.1E-02	IRIS, Cal EPA, ATSDR	B2	2.8E+03	ND	6.8E-01	8.0E+00	8.0E+00	3.6E+02	3.9E+02	3.6E+02	8.0E+00	3.9E+02	1.8E+03	3.9E+02	8.0E+00	8.0E+00
cis-1,2-Dichloroethylene	1.0E-02	ND	ND	ND	PPRTV	D	2.7E+03	ND	5.3E-01	7.0E+00	7.0E+00	1.8E+07	ND	1.8E+07	7.0E+00	2.0E+04	ND	2.0E+04	7.0E+00	7.0E+00
Ethylbenzene	1.0E-01	2.9E-01	1.1E-02	8.8E-03	IRIS, Cal EPA	D	7.7E+03	ND	2.0E+01	7.0E+01	7.0E+01	9.2E+03	1.4E+03	1.4E+03	7.0E+01	1.1E+04	5.2E+03	5.0E+03	7.0E+01	7.0E+01
Isopropylbenzene	1.0E-01	1.1E-01	ND	ND	IRIS	D	8.5E+03	ND	2.2E+01	5.0E-01	2.2E+01	4.4E+03	ND	4.4E+03	2.2E+01	4.8E+03	ND	4.8E+03	2.2E+01	2.2E+01
Methylene chloride	6.0E-02	2.9E-01	7.5E-03	1.6E-03	IRIS, ATSDR	B2	2.1E+03	ND	8.0E-02	5.0E-01	5.0E-01	2.8E+03	1.4E+02	1.4E+02	5.0E-01	3.1E+03	1.8E+02	1.9E+02	5.0E-01	5.0E-01
Naphthalene	2.0E-02	8.6E-04	ND	1.2E-01	IRIS, Cal EPA	C	6.4E+04	ND	1.0E+02	2.0E+00	1.0E+02	2.6E+02	6.1E+02	2.6E+02	1.0E+02	2.8E+02	7.7E+02	2.8E+02	1.0E+02	1.0E+02
Tetrachloroethene	1.0E-02	7.7E-02	5.4E-01	2.1E-02	IRIS, Cal EPA, ATSDR	B-C2	2.7E+03	ND	1.8E-01	5.0E-01	5.0E-01	8.6E+02	9.5E+00	9.5E+00	5.0E-01	1.0E+03	1.5E+01	1.5E+01	5.0E-01	5.0E-01
Toluene	8.0E-02	1.4E+00	ND	ND	IRIS	D	5.6E+03	ND	1.4E+01	1.0E+02	1.0E+02	2.2E+04	ND	2.2E+04	1.0E+02	3.2E+04	ND	3.2E+04	1.0E+02	1.0E+02
Trichloroethene	ND	ND	5.9E-03	7.0E-03	Cal EPA	B2	2.4E+03	ND	1.3E-01	5.0E-01	5.0E-01	ND	3.9E+01	3.9E+01	5.0E-01	ND	5.0E+01	5.0E+01	5.0E-01	5.0E-01
Xylene (total)	2.0E-01	2.9E-02	ND	ND	IRIS	NA	7.9E+03	ND	2.0E+01	1.0E+03	1.0E+03	1.1E+03	ND	1.1E+03	1.0E+03	1.1E+03	ND	1.1E+03	1.0E+03	1.0E+03

NC Noncarcinogen
C Carcinogen
RRS Risk Reduction Standard
ND No Data for this route

Prepared by: EJS 9/9/09
Checked by: LMS 3/9/10

Table K-3
Type 2 Soil Calculations, mg/kg

SUBSTANCE	Volatilization Factor (m^3/kg)	Residential Leaching Criteria	Residential Child NC-Type 2	Residential Child C-Type 2	Residential Adult NC-Type 2	Residential Adult C-Type 2	Overall Type 2 RRS
1,1,1-Trichloroethane	1.6E+03	6.1E+01	2.2E+03	ND	7.9E+03	ND	6.1E+01
1,1,2-Trichloroethane	8.8E+03	1.4E-01	3.1E+02	1.7E+01	3.1E+02	1.3E+01	1.4E-01
1,1-Dichloroethene	8.7E+02	1.9E+00	5.1E+01	ND	1.8E+02	ND	1.9E+00
1,4-Dioxane	2.1E+04	2.9E-02	5.8E+03	8.3E+02	ND	1.5E+03	2.9E-02
Chloroform	2.8E+03	1.4E+00	7.3E+01	4.1E+00	2.7E+02	2.9E+00	1.4E+00
cis-1,2-Dichloroethylene	2.7E+03	3.2E+00	7.8E+02	ND	7.8E+02	ND	3.2E+00
Ethylbenzene	7.7E+03	1.3E+02	1.8E+03	8.3E+02	7.2E+03	7.4E+01	7.4E+01
Isopropylbenzene	8.5E+03	6.0E+01	8.9E+02	ND	3.4E+03	ND	6.0E+01
Methylene chloride	2.1E+03	7.0E-01	5.6E+02	1.4E+02	2.1E+03	1.1E+02	7.0E-01
Naphthalene	6.4E+04	1.2E+01	5.6E+01	6.5E+01	2.0E+02	4.6E+01	1.2E+01
Tetrachloroethene	2.7E+03	2.2E-01	1.7E+02	8.1E+00	6.8E+02	8.0E+00	2.2E-01
Toluene	5.6E+03	9.8E+01	3.6E+03	ND	1.9E+04	ND	9.8E+01
Trichloroethene	2.4E+03	1.8E+00	ND	4.1E+01	ND	2.9E+01	1.8E+00
Xylene (total)	7.9E+03	1.6E+03	2.3E+02	ND	8.1E+02	ND	2.3E+02

NC Noncarcinogen
C Carcinogen
RRS Risk Reduction Standard
ND No Data

Prepared by: EJS 9/9/09
Checked by: LMS 3/9/10

Table K-4
Type 4 Soil Calculations, mg/kg

SUBSTANCE	Volatilization Factor (m^3/kg)	Direct Contact Only Construction Worker NC-Type 4	Direct Contact Only Construction Worker C-Type 4	Direct Contact Only Construction Worker Type 4 RRS	Nonresidential Leaching Criteria	Industrial Worker NC-Type 4	Industrial Worker C-Type 4	Direct Contact Type 4 RRS	Default Ind. Worker Overall (a) Type 4 RRS	
1,1,1-Trichloroethane	1.6E+03	2.2E+04	ND	2.2E+04	5.7E+02	1.1E+04	ND	1.1E+04	5.7E+02	
1,1,2-Trichloroethane	8.8E+03	2.5E+03	2.0E+03	2.0E+03	2.4E-01	8.2E+03	2.2E+01	2.2E+01	2.4E-01	
1,1-Dichloroethene	8.7E+02	3.1E+04	ND	3.1E+04	1.8E+01	2.5E+02	ND	2.5E+02	1.8E+01	
1,4-Dioxane	2.1E+04	6.2E+04	9.8E+03	9.8E+03	1.0E-01	ND	5.2E+03	5.2E+03	1.0E-01	
Chloroform	2.8E+03	6.2E+03	4.8E+02	4.8E+02	1.4E+00	3.9E+02	4.9E+00	4.9E+00	1.4E+00	
cis-1,2-Dichloroethene	2.7E+03	6.2E+03	ND	6.2E+03	2.0E+01	2.0E+04	ND	2.0E+04	2.0E+01	
Ethylbenzene	7.7E+03	1.6E+04	1.1E+04	1.1E+04	1.3E+02	1.1E+04	1.2E+02	1.2E+02	1.2E+02	
Isopropylbenzene	8.5E+03	8.5E+03	ND	8.5E+03	5.4E+02	4.8E+03	ND	4.8E+03	5.4E+02	
Methylene chloride	2.1E+03	5.4E+03	1.6E+04	5.4E+03	2.3E+00	3.1E+03	1.8E+02	1.8E+02	2.3E+00	
Naphthalene	6.4E+04	5.4E+02	7.7E+03	5.4E+02	1.2E+01	2.8E+02	7.7E+01	7.7E+01	1.2E+01	
Tetrachloroethene	2.7E+03	6.2E+03	8.5E+02	9.0E+02	2.2E-01	1.0E+03	1.5E+01	1.5E+01	2.2E-01	
Toluene	5.6E+03	3.1E+04	ND	3.1E+04	6.3E+02	3.2E+04	ND	3.2E+04	6.3E+02	
Trichloroethene	2.4E+03	ND	5.0E+03	5.0E+03	1.8E+00	ND	5.0E+01	5.0E+01	1.8E+00	**(b) 1.8**
Xylene (total)	7.9E+03	1.2E+05	ND	1.2E+05	1.6E+03	1.1E+03	ND	1.1E+03	1.1E+03	

(a) Includes comparison to Nonresidential Leaching Criteria. Nonresidential leaching criteria is higher of values based on Type 3 and Type 4 GW RRS.
(b) The approved leaching RRS is applied to areas beneath the building foundation because there is no potential for direct contact and the majority of these sub-foundation soils are greater than 2 feet in depth.
NC Noncarcinogen
C Carcinogen
RRS Risk Reduction Standard
ND No Data

Prepared by: EJS 9/9/09
Checked by: LMS 3/9/10

Table K-5
Exposure Parameters for Soil and Ground Water

Exposure Parameters for Type 4 Soil	Construction Worker	Source	Industrial Worker	Units	Source
Hazard Index	1	HSRA Rule	1		HSRA Rule
Target Risk	1E-05	HSRA Rule	1E-05		HSRA Rule
Body Weight	70	USEPA 2002	70	kg	USEPA 2002
Averaging Time, Carcinogen	70	USEPA 2002	70	years	USEPA 2002
Averaging Time, Noncarcinogen	0.5	Professional Judgment	25	years	USEPA 2002
Exposure Duration	0.5	Professional Judgment	25	years	USEPA 2002
Exposure Frequency	125	Professional Judgment	250	days/yr	USEPA 2002
Soil Ingestion Rate	330	USEPA 2002	50	mg/day	USEPA 2002
Air Inhalation Rate	20	USEPA 2002	20	m^3/day	USEPA 2002
PEF	4.63E+09	HSRA Rule	4.63E+09	m^3/kg	HSRA Rule
CF	1E-06	HSRA Rule	1E-06	kg/mg	HSRA Rule

Exposure Parameters for Type 2 Soil:	Residential Child	Residential Adult	Units	
Hazard Index	1	HSRA Rule	1	HSRA Rule
Target Risk	1E-05	HSRA Rule	1E-05	HSRA Rule
Body Weight	15	USEPA 2002	70	kg	USEPA 2002
Averaging Time, Carcinogen	70	USEPA 2002	70	years	USEPA 2002
Averaging Time, Noncarcinogen	6	USEPA 2002	30	years	USEPA 2002
Exposure Duration	6	USEPA 2002	30	years	USEPA 2002
Exposure Frequency	350	USEPA 2002	350	days/yr	USEPA 2002
Soil Ingestion Rate	200	USEPA 2002	100	mg/day	USEPA 2002
Air Inhalation Rate	15	HSRA Rule	20	m^3/day	USEPA 2002
PEF	4.63E+09	HSRA Rule	4.63E+09	m^3/kg	HSRA Rule
CF	1E-06	HSRA Rule	1E-06	kg/mg	HSRA Rule

Exposure Parameters for Type 1 and Type 3 Soils:	Residential Type 1	Nonresidential Type 3	Units	
Hazard Index	1	HSRA Rule	1	HSRA Rule
Target Risk (Class A & B)	1.E-05	HSRA Rule	1E-05	HSRA Rule
Target Risk (Class C)	1.E-04	HSRA Rule	1E-04	HSRA Rule
Body Weight	70	HSRA Rule	70	kg	HSRA Rule
Averaging Time, Carcinogen	70	HSRA Rule	70	years	HSRA Rule
Averaging Time, Noncarcinogen	30	HSRA Rule	25	years	HSRA Rule
Exposure Duration	30	HSRA Rule	25	years	HSRA Rule
Exposure Frequency	350	HSRA Rule	250	days/yr	HSRA Rule
Soil Ingestion Rate	114	HSRA Rule	50	mg/day	HSRA Rule
Air Inhalation Rate	15	HSRA Rule	20	m^3/day	HSRA Rule
PEF	4.63E+09	HSRA Rule	4.63E+09	m^3/kg	HSRA Rule
CF	1E-06	HSRA Rule	1E-06	kg/mg	HSRA Rule

Exposure Parameters for Type 4 Ground Water	Industrial Worker	Units	Source
Hazard Index	1		HSRA Rule
Target Risk	1E-05		HSRA Rule
Body Weight	70	kg	USEPA 2002
Averaging Time, Carcinogen	70	years	USEPA 2002
Averaging Time, Noncarcinogen	25	years	USEPA 2002
Exposure Duration	25	years	USEPA 2002
Exposure Frequency	250	day/year	USEPA 2002
Water Ingestion Rate	1	L/day	HSRA Rule Type 3
Air Inhalation Rate	20	m^3/day	USEPA 2002
Volatilization Factor = 0.0005 x 1000 L/m3 =	0.25	L/m3	Site-Specific

Exposure Parameters for Type 2 Ground Water:	Residential Child	Residential Adult	Units	
Hazard Index	1	1		HSRA Rule
Target Risk	1E-05	1E-05		HSRA Rule
Body Weight	15	70	kg	USEPA 2002
Averaging Time, Carcinogen	70	70	years	USEPA 2002
Averaging Time, Noncarcinogen	6	30	years	USEPA 2002
Exposure Duration	6	30	years	USEPA 2002
Exposure Frequency	350	350	day/year	USEPA 2002
Water Ingestion Rate	1	2	L/day	HSRA Rule Type 1
Air Inhalation Rate	15	20	m^3/day	HSRA Rule Type 1
Volatilization Factor = 0.0005 x 1000 L/m3 =	0.5	0.5	L/m3	HSRA Rule Type 1

Sources
HSRA Rule July 2003
USEPA 2002 Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, OSWER 9355.4-24, December 2002

Prepared by: EJS 9/9/09
Checked by: LMS 3/9/10

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Table K-6a
Area 1
Soil to Ground water Leachability

	K_d (a) (L/kg)	K_{oc} (L/kg)	Source	$Ø_w$	Øa	H' (unitless)	Øw+Øa*H'/Þ$_b$	Groundwater Type 1/3 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 1/3 C_s (mg/kg)	Groundwater Type 2 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 2 C_s (mg/kg)	Residential Cs (mg/kg)	Groundwater Type 4 RRS (c) (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 4 C_s (mg/kg)	Overall Cs (mg/kg)	
1,1,1-Trichloroethane	8.78E-01	4.39E+01	RSL	0.3	0.13	7.00E-01	0.2607	2.0E-01	4.0E+00	4.6E+00	2.7E+00	5.4E+01	6.1E+01	6.1E+01	2.5E+01	5.0E+02	5.7E+02	5.7E+02	
1,1,2-Trichloroethane	1.21E+00	6.07E+01	RSL	0.3	0.13	3.40E-02	0.2029	5.0E-03	1.0E-01	1.4E-01	2.5E-03	5.0E-02	7.1E-02	1.4E-01	8.5E-03	1.7E-01	2.4E-01	2.4E-01	
1,1-Dichloroethene	6.36E-01	3.18E+01	RSL	0.3	0.13	1.10E+00	0.2953	7.0E-03	1.4E-01	1.3E-01	1.0E-01	2.0E+00	1.9E+00	1.9E+00	9.5E-01	1.9E+01	1.8E+01	1.8E+01	
1,4-Dioxane	5.26E-02	2.63E+00	RSL	0.3	0.13	2.00E-04	0.2000	5.0E-03	1.0E-01	2.5E-02	5.8E-03	1.2E-01	2.9E-02	2.9E-02	2.0E-02	4.0E-01	1.0E-01	1.0E-01	
cis-1,2-Dichloroethene	7.92E-01	3.96E+01	RSL	0.3	0.13	1.70E-01	0.2147	7.0E-02	1.4E+00	1.4E+00	1.6E-01	3.2E+00	3.2E+00	3.2E+00	1.0E+00	2.0E+01	2.0E+01	2.0E+01	
Chloroform	6.36E-01	3.18E+01	RSL	0.3	0.13	1.50E-01	0.2130	8.0E-02	1.6E+00	1.4E+00	2.0E-03	4.0E-02	3.4E-02	1.4E+00	6.6E-03	1.3E-01	1.1E-01	1.4E+00	(b)
Ethylbenzene	8.92E+00	4.46E+02	RSL	0.3	0.13	3.20E-01	0.2277	7.0E-01	1.4E+01	1.3E+02	1.5E-02	3.0E-01	2.7E+00	1.3E+02	5.2E-02	1.0E+00	9.5E+00	1.3E+02	(b)
Isopropylbenzene (Cumene)	1.40E+01	6.98E+02	RSL	0.3	0.13	4.70E-01	0.2407	5.0E-03	1.0E-01	1.4E+00	2.1E-01	4.2E+00	6.0E+01	6.0E+01	1.9E+00	3.8E+01	5.4E+02	5.4E+02	
Methylene chloride	4.34E-01	2.17E+01	RSL	0.3	0.13	1.30E-01	0.2113	5.0E-03	1.0E-01	6.5E-02	5.4E-02	1.1E+00	7.0E-01	7.0E-01	1.8E-01	3.6E+00	2.3E+00	2.3E+00	
Naphthalene	3.08E+01	1.54E+03	RSL	0.3	0.13	1.80E-02	0.2016	2.0E-02	4.0E-01	1.2E+01	1.4E-03	2.8E-02	8.7E-01	1.2E+01	4.8E-03	9.6E-02	3.0E+00	1.2E+01	(b)
Tetrachloroethene	1.90E+00	9.49E+01	RSL	0.3	0.13	7.20E-01	0.2624	5.0E-03	1.0E-01	2.2E-01	1.3E-03	2.6E-02	5.6E-02	2.2E-01	4.4E-03	8.8E-02	1.9E-01	2.2E-01	(b)
Toluene	4.68E+00	2.34E+02	RSL	0.3	0.13	2.70E-01	0.2234	1.0E+00	2.0E+01	9.8E+01	8.8E-01	1.8E+01	8.6E+01	9.8E+01	6.4E+00	1.3E+02	6.3E+02	6.3E+02	
Trichloroethene		(d)	Site	0.3	0.13	4.00E-01	0.2347			1.8E+00			1.8E+00	1.8E+00			1.8E+00	1.8E+00	(e)
Xylene	7.66E+00	3.83E+02	RSL	0.3	0.13	2.10E-01	0.2182	1.0E+01	2.0E+02	1.6E+03	5.9E-02	1.2E+00	9.3E+00	1.6E+03	5.7E-01	1.1E+01	9.0E+01	1.6E+03	(b)

Site Site-Specific Determination using SPLP data
SSG Soil Screening Guidance (US Environmental Protection Agency, 1996)
RSL Regional Screening Level Chemical Parameters Table, January 2010

$Ø_w$ Water-filled soil porosity = 0.3 (L/L)
$Ø_a$ Air-filled soil porosity = 0.13 (L/L)
H' Dimensionless Henry Law Constant (HLC x 41) (unitless)
Þb Dry soil bulk density = 1.5 kg/L
RRS Risk Reduction Standard
C_w Target Leachate Concentration (mg/L)
C_s Screening Level in soil (mg/kg)
(a) $K_d = K_{oc} * f_{oc}$ where f_{oc} equal 0.02 (Georgia EPD HSRA Rules)
(b) C_s based on Type 1 RRS higher than C_s based on Type 4 RRS
(c) Using VF of 0.25 L/m^3
(d) Site -specific information was used
(e) 1.8 mg/kg was approved as the leaching RRS for TCE by EPD on January 19, 2007.

Prepared by : EJS 9/9/09
Checked by: LMS 3/9/10

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Table K-6b
Area 2
Soil to Ground water Leachability

	K_d (a) (L/kg)	K_{oc} (L/kg)	Source	$Ø_w$	Øa	H' (unitless)	Øw+Øa*H'/$Þ_b$	Groundwater Type 1/3 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 1/3 C_s (mg/kg)	Groundwater Type 2 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 2 C_s (mg/kg)	Residential Cs (mg/kg)	Groundwater Type 4 RRS (c) (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 4 C_s (mg/kg)	Non-Residential Cs (mg/kg)	
1,1,1-Trichloroethane	8.78E-01	4.39E+01	RSL	0.3	0.13	7.00E-01	0.2607	2.0E-01	4.0E+00	4.6E+00	2.7E+00	5.4E+01	6.1E+01	6.1E+01	2.5E+01	5.0E+02	5.7E+02	5.7E+02	
1,1,2-Trichloroethane	1.21E+00	6.07E+01	RSL	0.3	0.13	3.40E-02	0.2029	5.0E-03	1.0E-01	1.4E-01	2.5E-03	5.0E-02	7.1E-02	1.4E-01	8.5E-03	1.7E-01	2.4E-01	2.4E-01	
1,1-Dichloroethene	6.36E-01	3.18E+01	RSL	0.3	0.13	1.10E+00	0.2953	7.0E-03	1.4E-01	1.3E-01	1.0E-01	2.0E+00	1.9E+00	1.9E+00	9.5E-01	1.9E+01	1.8E+01	1.8E+01	
1,4-Dioxane	5.26E-02	2.63E+00	RSL	0.3	0.13	2.00E-04	0.2000	5.0E-03	1.0E-01	2.5E-02	5.8E-03	1.2E-01	2.9E-02	2.9E-02	2.0E-02	4.0E-01	1.0E-01	1.0E-01	
cis-1,2-Dichloroethene	7.92E-01	3.96E+01	RSL	0.3	0.13	1.70E-01	0.2147	7.0E-02	1.4E+00	1.4E+00	1.6E-01	3.2E+00	3.2E+00	3.2E+00	1.0E+00	2.0E+01	2.0E+01	2.0E+01	
Chloroform	6.36E-01	3.18E+01	RSL	0.3	0.13	1.50E-01	0.2130	8.0E-02	1.6E+00	1.4E+00	2.0E-03	4.0E-02	3.4E-02	1.4E+00	6.6E-03	1.3E-01	1.1E-01	1.4E+00	(b)
Ethylbenzene	8.92E+00	4.46E+02	RSL	0.3	0.13	3.20E-01	0.2277	7.0E-01	1.4E+01	1.3E+02	1.5E-02	3.0E-01	2.7E+00	1.3E+02	5.2E-02	1.0E+00	9.5E+00	1.3E+02	(b)
Isopropylbenzene (Cumene)	1.40E+01	6.98E+02	RSL	0.3	0.13	4.70E-01	0.2407	5.0E-03	1.0E-01	1.4E+00	2.1E-01	4.2E+00	6.0E+01	6.0E+01	1.9E+00	3.8E+01	5.4E+02	5.4E+02	
Methylene chloride	4.34E-01	2.17E+01	RSL	0.3	0.13	1.30E-01	0.2113	5.0E-03	1.0E-01	6.5E-02	5.4E-02	1.1E+00	7.0E-01	7.0E-01	1.8E-01	3.6E+00	2.3E+00	2.3E+00	
Naphthalene	3.08E+01	1.54E+03	RSL	0.3	0.13	1.80E-02	0.2016	2.0E-02	4.0E-01	1.2E+01	1.4E-03	2.8E-02	8.7E-01	1.2E+01	4.8E-03	9.6E-02	3.0E+00	1.2E+01	(b)
Tetrachloroethene	1.90E+00	9.49E+01	RSL	0.3	0.13	7.20E-01	0.2624	5.0E-03	1.0E-01	2.2E-01	1.3E-03	2.6E-02	5.7E-02	2.2E-01	4.4E-03	8.8E-02	1.9E-01	2.2E-01	(b)
Toluene	4.68E+00	2.34E+02	RSL	0.3	0.13	2.70E-01	0.2234	1.0E+00	2.0E+01	9.8E+01	8.8E-01	1.8E+01	8.6E+01	9.8E+01	6.4E+00	1.3E+02	6.3E+02	6.3E+02	
Trichloroethene		(d)	RSL	0.3	0.13	4.00E-01	0.2347			1.8E+00			1.8E+00	1.8E+00			1.8E+00	1.8E+00	(e)
Xylene	7.66E+00	3.83E+02	RSL	0.3	0.13	2.10E-01	0.2182	1.0E+01	2.0E+02	1.6E+03	5.9E-02	1.2E+00	9.3E+00	1.6E+03	5.7E-01	1.1E+01	9.0E+01	1.6E+03	(b)

Site Site-Specific Determination using SPLP data
SSG Soil Screening Guidance (US Environmental Protection Agency, 1996)
RSL Regional Screening Level Chemical Parameters Table, January 2010

$Ø_w$ Water-filled soil porosity = 0.3 (L/L)
$Ø_a$ Air-filled soil porosity = 0.13 (L/L)
H' Dimensionless Henry Law Constant (HLC x 41) (unitless)
Þb Dry soil bulk density = 1.5 kg/L
RRS Risk Reduction Standard
C_w Target Leachate Concentration (mg/L)
C_s Screening Level in soil (mg/kg)
(a) $K_d = K_{oc} * f_{oc}$ where f_{oc} equal 0.02 (Georgia EPD HSRA Rules)
(b) C_s based on Type 1 RRS higher than C_s based on Type 4 RRS
(c) Using VF of 0.25 L/m^3
(d) Area 2-specific value
(e) 1.8 mg/kg was approved as the leaching RRS for TCE by EPD on January 19, 2007.

Prepared by : EJS 9/9/09
Checked by: LMS 3/9/10

TABLE K-7

VOLATILIZATION FACTOR CALCULATION

	MW	Di	Dei	LOG_{Koc}	K_{oc}	K_d	H	K_{as}	Y	VF
	g/mol	cm^2/sec	cm^2/sec		L/kg	cm^3/g	atm-m^3/mol	g/cm^3	cm^2/sec	m^3/kg
VOCs										
1,1,1-Trichloroethane	133.41	6.50E-02	0.0458		43.9	0.878	1.72E-02	8.03E-01	6.43E-03	1.55E+03
1,1,2-Trichloroethane	133.41	6.70E-02	0.0472		60.7	1.214	8.24E-04	2.78E-02	2.65E-04	8.82E+03
1,1-Dichloroethene	96.94	0.086	0.0606		31.8	0.636	2.61E-02	1.68E+00	1.54E-02	8.67E+02
1,4-Dioxane	88.11	0.087	0.0613		2.63	0.0526	4.80E-06	3.74E-03	4.66E-05	2.12E+04
Chloroform	119.38	0.077	0.0543		31.8	0.636	3.67E-03	2.37E-01	2.49E-03	2.76E+03
cis-1,2-Dichloroethene	96.94	0.088	0.0620		39.6	0.792	4.08E-03	2.11E-01	2.55E-03	2.74E+03
Ethylbenzene	106.17	0.068	0.0479		446	8.92	7.88E-03	3.62E-02	3.50E-04	7.67E+03
Isopropylbenzene (Cumene)	120.2	0.06	0.0423		698	13.96	1.15E-02	3.38E-02	2.88E-04	8.46E+03
Methylene Chloride	84.93	0.1	0.0705		21.7	0.434	3.25E-03	3.07E-01	4.14E-03	2.12E+03
Tetrachloroethylene	165.83	0.05	0.0352		94.9	1.898	1.77E-02	3.82E-01	2.54E-03	2.66E+03
Toluene	92.14	0.078	0.0550		234	4.68	6.64E-03	5.82E-02	6.42E-04	5.64E+03
Trichloroethene	131.39	0.069	0.0486		60.7	1.214	9.85E-03	3.33E-01	3.08E-03	2.44E+03
Xylenes, mixed	106.17	0.085	0.0599		383	7.66	5.18E-03	2.77E-02	3.36E-04	7.85E+03
SVOCs										
Naphthalene	128.18	0.06	0.0423		1540	30.8	4.40E-04	5.86E-04	5.03E-06	6.44E+04

Equation is from USEPA, 1991b.

VF = Volatilization Factor (m^3/kg)

PREPARED BY/DATE: EJS 7/14/2009

CHECKED BY/DATE: LMS 1/6/2010

$$VF = (LS \times V \times DH) / (A) \; * \; \frac{(3.14 \times Y \times T)^{1/2}}{(2 \times Dei \times P \times Kas \times 0.001)}$$

$$Y = \frac{Dei \times P}{P + (p(1-P)/Kas)}$$

LS = Length of side of contaminated area =	45	m (default)
V = wind speed in mixing zone =	2.25	m/s (default)
DH = diffusion height =	2	m
A = area of contamination =	20,250,000	cm^2 (default)
T = exposure interval =	790000000	s = 25 yrs
Dei = effective diffusivity (cm^2/s) =	Chemical Specific	
P = air filled soil porosity (unitless) =	0.35	(default)
Kas = soil/air partition coefficient (g soil/cm^3 air) =	Chemical Specific	
Conversion factor =	0.001	kg/g
p = True soil density or particulate density =	2.65	g/cm^3 (default)

MACTEC
engineering and constructing a better tomorrow

March 18, 2010

Mr. David Sordi, P.E.
Manager, Environmental Engineering
Ingersoll Rand Company
IR Corporate Center
P.O. Box 389
Center Conway, New Hampshire 03813

Subject: **Risk Evaluation of Potential Indoor Air Exposure**
From Soil and Groundwater at the Thermo King Facility
Louisville, Georgia
MACTEC Project No. 6122090322

Dear Mr. Sordi:

MACTEC Engineering and Consulting, Inc. (MACTEC) is pleased to provide Ingersoll Rand Company with this letter discussing potential indoor vapor exposures associated with volatile organic compounds (VOCs) emitted from subsurface soil and groundwater at the Thermo King site in Louisville, Georgia.

VOCs have been detected in the soil beneath the building floor slab in areas where former solvent degreasers were operated. VOCs have been detected in groundwater at locations beneath the building. Current and future workers are the most likely potential receptors to be exposed to vapor emissions from site soils and groundwater.

Vapor Intrusion Modeling

Potential vapor emissions from VOC-impacted soil and groundwater located beneath the building may present potential indoor air vapor exposures. This exposure route is not addressed by the Hazardous Site Response Act risk reduction standards that were calculated for the Compliance Status Report (CSR). Three former degreasers were located on a west-east line in the middle third of the building. One degreaser was located on the west side approximately 40 feet off of the west wall. The other two degreasers were located on the east side approximately 110 feet off the east wall. MACTEC has calculated the cumulative incremental risks and hazards related to potential vapor intrusion into the manufacturing building due to residual VOCs in the subsurface. The distribution and concentrations of constituents used in these calculations are those concentrations detected in soil during the site-specific soil-water partitioning study and concentrations detected in groundwater during the CSR investigations for the Facility.

MACTEC utilized the U.S. Environmental Protection Agency (USEPA)'s Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (USEPA, 2002). In accordance with the guidance, MACTEC calculated site-specific incremental risks and hazard quotients for current and future indoor air exposures at the site, using USEPA's Johnson and Ettinger Model for Subsurface Vapor Intrusion into Buildings (Version 3.1, February 2004) (the Johnson and Ettinger Model). Using the information collected by MACTEC during site investigations, MACTEC has added site-specific information and assumptions to the inputs for the Johnson and Ettinger Model, reflecting subsurface conditions noted during the site investigations (Table 1 and Table 2).

The Johnson and Ettinger Model incorporates both convective and diffusive mechanisms for estimating the transport of contaminant vapors emanating from the subsurface into indoor spaces located directly above the source of contamination. The model is a one-dimensional analytical solution to vapor transport into indoor spaces, relating the vapor concentration in the building to the chemical concentration at the subsurface source area. Inputs to the model include chemical properties of the detected constituents, saturated and unsaturated zone soil properties, and structural properties of the building. Site-specific values include depth to groundwater, soil type, building dimensions, and air exchange rate. Model default values were used for other values such as soil bulk density, soil organic carbon fraction, and chemical-specific parameters.

Toxicity values [Inhalation Reference Concentrations (RfCs) and Unit Risk Factors (URFs)] used in this evaluation were obtained from the Integrated Risk Information System and the USEPA Regional Screening Level Table (USEPA, 2010). The RfC is used to estimate non-carcinogenic inhalation hazards. The RfC is an estimate of the daily exposure to the human population (including sensitive subgroups such as children and the elderly) that is likely to be without an appreciable risk of deleterious effects. The estimated hazard quotient are added together and compared to a target hazard index (HI) of one. Cumulative hazards less than one are not likely to be associated with systemic or non-carcinogenic health risks.

Using chemical-specific URFs, the cumulative carcinogenic risk for the indoor vapor intrusion pathway was calculated and compared to a target risk range 10^{-5} to 10^{-4}. If the cumulative carcinogenic risk for commercial/industrial workers is less than 10^{-4}, risk is considered to be in the acceptable range. The URF is characterized as an upper-bound estimate designed to be protective of the majority of the human population.

The Johnson and Ettinger Model assumes the structure is located above the subsurface impacts and volatile emissions from soil and groundwater will enter through the concrete floor slab. This model does not incorporate dispersion, dilution, or bioattenuation. However, in actuality, the concentrations of volatile compounds may naturally attenuate over time. The model also assumes an infinite subsurface contamination source. It is our understanding that the distribution of VOCs under the building is present under only a portion of the site (approximately one-third). In general, the assumptions used in the Johnson and Ettinger modeling would tend to overestimate hazards and risks for occupational receptors.

Calculations of potential vapor intrusion due to the presence of seven constituents in soil [trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1,1-trichloroethane (1,1,1-TCA), 1,1,2-trichloroethane (1,1,2-TCA), 1,1-dichloroethene (1,1-DCE), naphthalene, and 1,4-dioxane] and four constituents in groundwater (TCE, 1,1-DCE, cis-1,2-DCE, and 1,1,1-TCA) were made. The concentrations of soil constituents used in the calculations were the maximum concentrations of the positive detections observed beneath the building slab. The concentrations used for the groundwater constituents were also the maximum of the reported concentrations for the three monitoring locations beneath the building. In actuality, only one-third of the subsurface beneath the building footprint is impacted, so use of the maximum concentration would overestimate the concentrations in indoor air. Based on site-specific information provided by the facility regarding its ventilation system, a site-specific air exchange rate of 2.9 was calculated (Table 5).

Risk calculations for the indoor air exposure scenario were performed for current and future on-site industrial workers. Conservative assumptions were used in the occupational calculations; specifically, the assumptions that receptors would be present in the same location and exposed to the same vapor concentrations for an extended period of time (i.e., 250 days per year for 25 years). Cumulative hazards and risks for both carcinogenic and noncarcinogenic routes have been calculated. The results are presented in Tables 3 and 4. The outputs of the Johnson and Ettinger Model are provided as Attachment A.

The following summarize the results of the Johnson and Ettinger model calculations:

1. The estimated incremental risk from vapor intrusion in indoor air from the potential carcinogen in groundwater (TCE) is 3E-7.
2. The estimated hazard index for vapor intrusion to indoor air from the potential systemic toxicants in groundwater (1,1-DCE, cis-1,2-DCE, and 1,1,1-TCA) is 0.002.
3. The estimated incremental risk from the potential carcinogens in soil (1,4-dioxane, naphthalene, 1,1,2-TCA, and TCE) is 2E-6.
4. The estimated hazard index for vapor intrusion to indoor air from the potential systemic toxicants in soil (1,1-DCE, cis-1,2-DCE, 1,4-dioxane, naphthalene, and 1,1,1-TCA) is 0.001.
5. The cumulative incremental risk for vapor intrusion from both soil and groundwater is 2E-6 and the cumulative hazard is 0.003.

Based on these results, the vapor intrusion pathway would not pose an unacceptable hazard or risk to occupational receptors, and would not be of regulatory concern. Soil and groundwater remediation goals protective of industrial workers via indoor air were calculated using the Johnson and Ettinger model. These remediation goals are listed on Tables 3 and 4. The remediation goals are greater than current maximum detected soil and groundwater concentrations, indicating that no action to protect human health is required.

MACTEC appreciates the opportunity to provide environmental consulting services to the Ingersoll Rand Company. Please contact us at 770-421-3400 with questions or comments regarding this letter.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

Jackie Burns

A. David Alcott, P.E.
Senior Principal Engineer

For A. David Alcott
with permission

Laura M. Smith

Laura M. Smith, R.H.S.P.
Senior Scientist

Attachments
References, Tables, and Appendix A

cc: David Kolb – Thermo King Corporation – Louisville, Georgia

REFERENCES

USEPA, 2002. Draft Guidance for Evaluating the Vapor Intrusion into Indoor Air Pathway from Groundwater and Soils, USEPA, November 2002.

USEPA, 2004. User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings, USEPA, Office of Emergency and Remedial Response, February 22, 2004.

USEPA, 2010. Regional Screening Level Table. January 6, 2010.

TABLES

Table 1
Occupational Assumptions Used in Johnson & Ettinger Model (GW-ADV)

Parameter	Value	Justification
Average Water Temp.	19.4 ^{o}C	Regional default
Depth Below Grade to Enclosed Space Floor	15 cm	Slab on grade foundation
Depth Below Grade to Groundwater /Thickness of Soil Stratum	1220 cm	40 feet
Thickness of Stratums A and B (each)	610 cm	Site-specific
SCS Soil Type above the water table (Stratum A)	SC	Clayey sand
Stratum A Soil Dry Bulk Density	1.63 g/cm^3	Model value
Stratum A Soil Total Porosity	0.385 unitless	Model value
Stratum A Soil Water-filled Porosity	0.197 cm^3/cm^3	Model value
SCS Soil Type (Stratum B)	S	Sand
Stratum B Soil Dry Bulk Density	1.66 g/cm^3	Model value
Stratum B Soil Total Porosity	0.375 unitless	Model value
Stratum B Soil Water-filled Porosity	0.054 cm^3/cm^3	Model value
Enclosed Space Floor Thickness	15 cm	6 inches
Soil-Building Pressure Differential	40 g/cm-s^2	Model default
Enclosed Space Floor Length	17,204 cm	Building Length is ~564 ft
Enclosed Space Floor Width	10,973 cm	Building Width is ~360 ft
Enclosed Space Height	823 cm	27-Foot Ceiling Height
Floor-Wall Seam Crack Width	0.1 cm	Model default
Indoor Air Exchange Rate	2.9/hour	Building-specific value
Averaging Time, Carcinogens	70 years	Model default
Averaging Time, Noncarcinogens	25 years	Reasonable Maximum Exposure Time for Occupational Scenario (USEPA, 1991)
Exposure Duration	25 years	Reasonable Maximum Exposure Time for Occupational Scenario (USEPA, 1991)
Exposure Frequency	250 days/year	Default for occupational
Target Risk for Carcinogens	10^{-5} to 10^{-4} unitless	Target Risk
Target Hazard for Noncarcinogens	1 unitless	Target Hazard

Prepared by: LMS 1/25/10
Checked by: EJS 3/17/10

Table 2
Occupational Assumptions Used in Johnson & Ettinger Model (SL-ADV)

Parameter	Value	Justification
Average Water Temp.	19.4 ^{o}C	Regional default
Depth Below Grade to Enclosed Space Floor	15 cm	Slab on grade foundation
Depth Below Grade to Top of Contamination	15 cm	Detections in soil below the floor
Depth Below Grade to Bottom of Contamination	518 cm	Detections to 17 feet below grade
SCS Soil Type above the water table (Stratum A)	SC	Clayey sand
Stratum A Soil Dry Bulk Density	1.63 g/cm^3	Model value
Stratum A Soil Total Porosity	0.385 unitless	Model value
Stratum A Soil Water-filled Porosity	0.197 cm^3/cm^3	Model value
Stratum A Soil Organic Carbon Fraction	0.002	Model value
Enclosed Space Floor Thickness	15 cm	6 inches
Soil-Building Pressure Differential	40 g/cm-s^2	Model default
Enclosed Space Floor Length	17,204 cm	Building Length is ~564 ft
Enclosed Space Floor Width	10,973 cm	Building Width is ~360 ft
Enclosed Space Height	823 cm	27-Foot Ceiling Height
Floor-Wall Seam Crack Width	0.1 cm	Model default
Indoor Air Exchange Rate	2.9/hour	Building-specific value
Averaging Time, Carcinogens	70 years	Model default
Averaging Time, Noncarcinogens	25 years	Reasonable Maximum Exposure Time for Occupational Scenario (USEPA, 1991)
Exposure Duration	25 years	Reasonable Maximum Exposure Time for Occupational Scenario (USEPA, 1991)
Exposure Frequency	250 days/year	Default for occupational
Target Risk for Carcinogens	10^{-5} to 10^{-4} unitless	Target Risk
Target Hazard for Noncarcinogens	1 unitless	Target Hazard

Table 3
Occupational Exposure to Vapors from Groundwater
Thermoking Louisville Site

Constituent	Maximum Detected Groundwater Concentration under Building, ug/L	Estimated Indoor Air Concentrations, ug/m^3 (a)	Estimated Excess Cancer Risk (b)	Estimated Hazard Index (b)	Unit Risk Factor, $(ug/m^3)^{-1}$ (c)	Reference Concentration, mg/m^3 (c)		Groundwater Remediation Goals - Inhalation of Indoor Air, ug/L	Notes
1,1-Dichloroethene	1,200	0.169	NA	5.80E-04	NA	0.2		2.07E+06	THI=1
cis-1,2 Dichloroethene	270	0.0565	NA	0.000065	NA	6.0E-02	(d)	3.50E+06	Solubility Limit
1,1,1-Trichloroethane	83,000	7.31	NA	0.0010	NA	5.0E+00		1.33E+06	Solubility Limit
Trichloroethene	10,000	0.516	2.5E-07	NA	2.0E-06	NA		3.96E+05	$TR=10^{-5}$
	Total		3E-07	0.002					

Note: Cumulative hazard less than the point of departure (hazard index of 1)
Carcinogenic risk less than target risk of 10^{-6} to 10^{-4}.
ug/m^3 micrograms per cubic meter
ug/L micrograms per liter
THI Target Hazard Index
TR Target Risk
(a) Infinite source building concentration ($C_{building}$) calculated from maximum detected groundwater concentrations underneath building using Johnson and Ettinger model (GW-ADV).
(b) Estimated using GW-ADV, Version 3.1, 2004 and default occupations exposure assumptions
(c) Toxicity values were updated in the GW-ADV spreadsheet from January 2010 USEPA Regional Screening Level Table. Other parameters were not changed.
(d) Inhalation Reference Concentration for cis-1,2-Dichloroethylene not available. Used value for trans-1,2-Dichloroethylene as a surrogate.

Table 4
Occupational Exposure to Vapors from Soil
Thermoking Louisville Site

Constituent	Maximum Detected Soil Concentration under Building, ug/kg	Estimated Excess Cancer Risk (a)	Estimated Hazard Index (a)	Estimated Indoor Air Concentrations, ug/m^3 (b)	Unit Risk Factor, (ug/m^3)$^{-1}$ (c)	Reference Concentration, mg/m^3 (c)		Soil Remediation Goals - Inhalation of Indoor Air, ug/kg	Notes
1,1-Dichloroethene	51	NA	0.00008	0.0218	NA	0.2		6.8E+05	THI=1
cis-1,2 Dichloroethene	600	NA	0.0007	0.0632	NA	6.0E-02	(d)	7.3E+05	Saturation Limit
1,4-Dioxane	3600000	1.4E-06	0.0001	0.76	7.7E-06	3.6E+00		2.5E+07	TR=10^{-5}
Naphthalene	310	1.4E-09	0.00004	0.00017	3.4E-05	3.0E-03		1.3E+05	Saturation Limit
1,1,1-Trichloroethane	2300	NA	0.00007	0.520	NA	5.0E+00		5.4E+05	THI=1
1,1,2-Trichloroethane	26	2.1E-09	NA	0.000534	1.6E-05	NA		1.2E+05	TR=10^{-5}
Trichloroethene	4100	2.2E-07	NA	0.449	2.0E-06	NA		1.9E+05	TR=10^{-5}
	Total	2E-06	0.001						

Note: Cumulative hazard less than the point of departure (hazard index of 1)
Carcinogenic risk less than target risk of 10^{-5}.
ug/m^3 micrograms per cubic meter
ug/L micrograms per liter
THI Target Hazard Index
TR Target Risk
(a) Estimated using SL-ADV, Version 3.1, 2004 and default occupations exposure assumptions
(b) Infinite source building concentration ($C_{building}$) calculated from maximum detected subslab soil concentrations underneath building using Johnson and Ettinger model (SL-ADV).
(c) Toxicity values were updated in the SL-ADV spreadsheet from January 2010 USEPA Regional Screening Level Table. Other parameters were not changed.
(d) Inhalation Reference Concentration for cis-1,2-Dichloroethylene not available. Used value for trans-1,2-Dichloroethylene as a surrogate.

TABLE 5: CALCULATION OF AIR EXCHANGE RATE INSIDE OF THERMO KING MANUFACTURING BUILDING

Section	East	West	Sub total	North	South	Sub total		Total Sq ft
Non HVAC components	20	10	200	40	2	80		16,000
Main plant	20	13	260	40	16	640		166,400
Office complex - HVAC	20	3	60	40	3	120	-1	-7,200
Coil and tubing	20	4	80	40	5	200		16,000
weld assembly	20	3	60	40	2	80		4,800
Pretreat laydown	20	3	60	40	3	120		7,200
Total linear square footage								203,200
average ceiling height								27
Note square footage base on building column spacing and approximate manufacturing locations								
Total Cubic Space								5,486,400

Normal operating conditions		Rated	Efficency	Operational	CFM	Total CFM	Per hour	
Air flow exhausted out of building	# of fans	CFM	Factor	CFM				
Dip tank	2	20,112	0.10	2,011	18,101	36,202	2,172,096	
Welding	6	28,670	0.10	2,867	25,803	154,818	9,289,080	
Pretreat- low	2	20,112	0.10	2,011	18,101	36,202	2,172,096	
Finn Press	2	28,670	0.10	2,867	25,803	51,606	3,096,360	
							16,729,632	3.05
Calculation safety factor								-0.05
Air exchange rate in normal year round conditons								2.89

Additional information

A. The following exhaust equipment has been added in the last 3 to 4 years . It runs when plant floor temperatures exceed employees comfort levels - fan control is at employees determination

Pretreat- high *	2	28,670	0.10	2,867	25,803	51,606	3,096,360
Coil *	8	28,670	0.10	2,867	25,803	206,424	12,385,440

B. The following exhaust equipment is run during the typical 8 hour manufacturing day .

Roof Ventilators	14	31,480	
Exhaust Booths			80,000
Processing Booths **			275,000
**			
Paint Ovens			
Washers exhaust			
Coil furnaces			

C. The listed below units provide heat in the winter time and fresh air in the summer time .

Type two	5	110,000	550,000	33,000,000

Prepared by: David Kolb - Thermo King, Louisville, GA 3/11/2010

APPENDIX A
Model Runs

PREPARED BY: LMS 1/25/10
CHECKED BY: EJS 1/26/10

DATA ENTRY SHEET

GW-ADV Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
75354	1.20E+03	1,1-Dichloroethylene

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of L_{WT} (cell G28)							
19.4	15	1220	610	610		B	S	SC		

MORE ↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
Lookup Soil Parameters				Lookup Soil Parameters				Lookup Soil Parameters			
SC	1.63	0.385	0.197	S	1.66	0.375	0.054		1.5	0.43	0.215

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm-s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1
				Used to calculate risk-based groundwater concentration.	

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
9.00E-02	1.04E-05	2.60E-02	25	6,247	304.75	576.05	5.89E+01	2.25E+03	0.0E+00	2.0E-01

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
7.88E+08	1205	0.188	0.321	0.215	0.299	1.77E-09	0.837	1.48E-09	17.05	0.375	0.122	0.253	56,354

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)
1.25E+08	1.89E+08	2.99E-05	15	6,330	2.12E-02	8.84E-01	1.78E-04	2.32E-03	1.45E-02	0.00E+00	5.77E-04	3.69E-03	1205

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
15	1.06E+06	0.10	2.06E+01	2.32E-03	5.64E+03	1.85E+10	1.59E-07	1.69E-01	NA	2.0E-01

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (μg/L)	Indoor exposure groundwater conc., noncarcinogen (μg/L)	Risk-based indoor exposure groundwater conc., (μg/L)	Pure component water solubility, S (μg/L)	Final indoor exposure groundwater conc., (μg/L)
NA	NA	NA	2.25E+06	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	5.8E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

SL-ADV
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED SOIL CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL SOIL CONCENTRATION (enter "X" in "YES" box and initial soil conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial soil conc., C_R (µg/kg)	Chemical
75354	5.10E+01	1,1-Dichloroethylene

MORE

ENTER Average soil temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to top of contamination, L_t (cm)	ENTER Depth below grade to bottom of contamination, (enter value of 0 if value is unknown) L_b (cm)	ENTER Totals must add up to value of L_t (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
19.4	15	15	518	15	0	0	SC		

MORE

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum A soil organic carbon fraction, f_{oc}^A (unitless)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum B soil organic carbon fraction, f_{oc}^B (unitless)	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)	ENTER Stratum C soil organic carbon fraction, f_{oc}^C (unitless)
Lookup Soil Parameters					Lookup Soil Parameters					Lookup Soil Parameters				
SC	1.63	0.385	0.197	0.002		1.5	0.43		0.002		1.5	0.43		0.002

MORE

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1

Used to calculate risk-based soil concentration.

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Physical state at soil temperature, (S,L,G)
9.00E-02	1.04E-05	2.60E-02	25	6,247	304.75	576.05	5.89E+01	2.25E+03	0.0E+00	2.0E-01	L

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Initial soil concentration used, C_R ($\mu g/kg$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
7.88E+08	1	0.188	ERROR	ERROR	0.299	1.77E-09	0.837	1.48E-09	56,354	5.10E+01	1.25E+08

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	Convection path length, L_p (cm)
1.89E+08	2.99E-05	15	6,330	2.12E-02	8.84E-01	1.78E-04	2.32E-03	0.00E+00	0.00E+00	2.32E-03	1	15

Soil-water partition coefficient, K_d (cm^3/g)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source β term (unitless)	Finite source ψ term $(sec)^{-1}$	Time for source depletion, τ_D (sec)	Exposure duration > time for source depletion (YES/NO)
1.18E-01	1.32E+05	0.10	2.06E+01	2.32E-03	5.64E+03	1.85E+10	NA	NA	2.13E+04	3.70E-03	2.92E+09	NO

Finite source indoor attenuation coefficient, $<\alpha>$ (unitless)	Mass limit bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Final finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.64E-07	NA	2.18E-02	2.18E-02	NA	2.0E-01

END

RESULTS SHEET

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C_{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)
NA	NA	NA	7.66E+05	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	7.5E-05

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

GW-ADV Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)		Chemical
71556	8.30E+04		1,1,1-Trichloroethane

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Totals must add up to value of L_{WT} (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
19.4	15	1220	610	610		B	S	SC		

MORE ↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
Lookup Soil Parameters				Lookup Soil Parameters				Lookup Soil Parameters			
SC	1.63	0.385	0.197	S	1.66	0.375	0.054		1.5	0.43	0.215

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm-s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-04	1
				Used to calculate risk-based groundwater concentration.	

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
7.80E-02	8.80E-06	1.72E-02	25	7,136	347.24	545.00	1.10E+02	1.33E+03	0.0E+00	5.0E+00

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
7.88E+08	1205	0.188	0.321	0.215	0.299	1.77E-09	0.837	1.48E-09	17.05	0.375	0.122	0.253	56,354

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)
1.25E+08	1.89E+08	2.99E-05	15	7,783	1.33E-02	5.56E-01	1.78E-04	2.01E-03	1.26E-02	0.00E+00	5.01E-04	3.20E-03	1205

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
15	4.61E+07	0.10	2.06E+01	2.01E-03	5.64E+03	7.00E+11	1.58E-07	7.31E+00	NA	5.0E+00

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (μg/L)	Indoor exposure groundwater conc., noncarcinogen (μg/L)	Risk-based indoor exposure groundwater conc., (μg/L)	Pure component water solubility, S (μg/L)	Final indoor exposure groundwater conc., (μg/L)
NA	NA	NA	1.33E+06	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	1.0E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

SL-ADV
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED SOIL CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL SOIL CONCENTRATION (enter "X" in "YES" box and initial soil conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial soil conc., C_R (µg/kg)	Chemical
71556	2.30E+03	1,1,1-Trichloroethane

MORE

ENTER Average soil temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to top of contamination, L_t (cm)	ENTER Depth below grade to bottom of contamination, (enter value of 0 if value is unknown) L_b (cm)	ENTER Totals must add up to value of L_t (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
19.4	15	15	518	15	0	0	SC		

MORE

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum A soil organic carbon fraction, f_{oc}^A (unitless)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum B soil organic carbon fraction, f_{oc}^B (unitless)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)	ENTER Stratum C soil organic carbon fraction, f_{oc}^C (unitless)
SC	1.63	0.385	0.197	0.002		1.5	0.43		0.002		1.5	0.43		0.002

MORE

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-04	1

Used to calculate risk-based soil concentration.

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Physical state at soil temperature, (S,L,G)
7.80E-02	8.80E-06	1.72E-02	25	7,136	347.24	545.00	1.10E+02	1.33E+03	0.0E+00	5.0E+00	L

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Initial soil concentration used, C_R ($\mu g/kg$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
7.88E+08	1	0.188	ERROR	ERROR	0.299	1.77E-09	0.837	1.48E-09	56,354	2.30E+03	1.25E+08

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	Convection path length, L_p (cm)
1.89E+08	2.99E-05	15	7,783	1.33E-02	5.56E-01	1.78E-04	2.01E-03	0.00E+00	0.00E+00	2.01E-03	1	15

Soil-water partition coefficient, K_d (cm^3/g)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source β term (unitless)	Finite source ψ term $(sec)^{-1}$	Time for source depletion, τ_D (sec)	Exposure duration > time for source depletion (YES/NO)
2.20E-01	3.16E+06	0.10	2.06E+01	2.01E-03	5.64E+03	7.00E+11	NA	NA	1.84E+04	1.70E-03	5.54E+09	NO

Finite source indoor attenuation coefficient, $<\alpha>$ (unitless)	Mass limit bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Final finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.65E-07	NA	5.20E-01	5.20E-01	NA	5.0E+00

END

RESULTS SHEET

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C_{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)
NA	NA	NA	5.40E+05	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	7.1E-05

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

SL-ADV
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED SOIL CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL SOIL CONCENTRATION (enter "X" in "YES" box and initial soil conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial soil conc., C_R (µg/kg)	Chemical
79005	2.60E+01	1,1,2-Trichloroethane

MORE

ENTER Average soil temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to top of contamination, L_t (cm)	ENTER Depth below grade to bottom of contamination, (enter value of 0 if value is unknown) L_b (cm)	ENTER Totals must add up to value of L_t (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
19.4	15	15	518	15	0	0	SC		

MORE

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum A soil organic carbon fraction, f_{oc}^A (unitless)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum B soil organic carbon fraction, f_{oc}^B (unitless)	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)	ENTER Stratum C soil organic carbon fraction, f_{oc}^C (unitless)
Lookup Soil Parameters					Lookup Soil Parameters					Lookup Soil Parameters				
SC	1.63	0.385	0.197	0.002		1.5	0.43		0.002		1.5	0.43		0.002

MORE

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1

Used to calculate risk-based soil concentration.

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Physical state at soil temperature, (S,L,G)
7.80E-02	8.80E-06	9.11E-04	25	8,322	386.15	602.00	5.01E+01	4.42E+03	1.6E-05	0.0E+00	L

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Initial soil concentration used, C_R ($\mu g/kg$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
7.88E+08	1	0.188	ERROR	ERROR	0.299	1.77E-09	0.837	1.48E-09	56,354	2.60E+01	1.25E+08

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	Convection path length, L_p (cm)
1.89E+08	2.99E-05	15	9,470	6.71E-04	2.79E-02	1.78E-04	2.02E-03	0.00E+00	0.00E+00	2.02E-03	1	15

Soil-water partition coefficient, K_d (cm^3/g)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source β term (unitless)	Finite source ψ term $(sec)^{-1}$	Time for source depletion, τ_D (sec)	Exposure duration > time for source depletion (YES/NO)
1.00E-01	3.24E+03	0.10	2.06E+01	2.02E-03	5.64E+03	6.19E+11	NA	NA	1.85E+04	1.55E-04	6.10E+10	NO

Finite source indoor attenuation coefficient, $<\alpha>$ (unitless)	Mass limit bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Final finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.65E-07	NA	5.34E-04	5.34E-04	1.6E-05	NA

END

RESULTS SHEET

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C_{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)
NA	NA	NA	9.91E+05	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
2.1E-09	NA

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

SL-ADV
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED SOIL CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL SOIL CONCENTRATION (enter "X" in "YES" box and initial soil conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial soil conc., C_R (µg/kg)	Chemical
156592	6.00E+02	cis-1,2-Dichloroethylene

MORE

ENTER Average soil temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to top of contamination, L_t (cm)	ENTER Depth below grade to bottom of contamination, (enter value of 0 if value is unknown) L_b (cm)	ENTER Totals must add up to value of L_t (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
19.4	15	15	518	15	0	0	SC		

MORE

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum A soil organic carbon fraction, f_{oc}^A (unitless)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum B soil organic carbon fraction, f_{oc}^B (unitless)	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)	ENTER Stratum C soil organic carbon fraction, f_{oc}^C (unitless)
Lookup Soil Parameters					Lookup Soil Parameters					Lookup Soil Parameters				
SC	1.63	0.385	0.197	0.002		1.5	0.43		0.002		1.5	0.43		0.002

MORE

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1

Used to calculate risk-based soil concentration.

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Physical state at soil temperature, (S,L,G)
7.36E-02	1.13E-05	4.07E-03	25	7,192	333.65	544.00	3.55E+01	3.50E+03	0.0E+00	6.0E-02	L

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Initial soil concentration used, C_R ($\mu g/kg$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
7.88E+08	1	0.188	ERROR	ERROR	0.299	1.77E-09	0.837	1.48E-09	56,354	6.00E+02	1.25E+08

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	Convection path length, L_p (cm)
1.89E+08	2.99E-05	15	7,639	3.18E-03	1.32E-01	1.78E-04	1.90E-03	0.00E+00	0.00E+00	1.90E-03	1	15

Soil-water partition coefficient, K_d (cm^3/g)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source β term (unitless)	Finite source ψ term $(sec)^{-1}$	Time for source depletion, τ_D (sec)	Exposure duration > time for source depletion (YES/NO)
7.10E-02	3.84E+05	0.10	2.06E+01	1.90E-03	5.64E+03	3.46E+12	NA	NA	1.74E+04	7.47E-04	1.19E+10	NO

Finite source indoor attenuation coefficient, $<\alpha>$ (unitless)	Mass limit bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Final finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.65E-07	NA	6.32E-02	6.32E-02	NA	6.0E-02

END

RESULTS SHEET

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C_{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)
NA	NA	NA	7.25E+05	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	7.2E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

MESSAGE: Risk/HQ or risk-based soil concentration is based on a route-to-route extrapolation.

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

GW-ADV Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
156592	2.70E+02	cis-1,2-Dichloroethylene

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of L_{WT} (cell G28)							
19.4	15	1220	610	610		B	S	SC		

MORE ↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
Lookup Soil Parameters				Lookup Soil Parameters				Lookup Soil Parameters			
SC	1.63	0.385	0.197	S	1.66	0.375	0.054		1.5	0.43	0.215

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm-s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1
				Used to calculate risk-based groundwater concentration.	

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
7.36E-02	1.13E-05	4.07E-03	25	7,192	333.65	544.00	3.55E+01	3.50E+03	0.0E+00	6.0E-02

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
7.88E+08	1205	0.188	0.321	0.215	0.299	1.77E-09	0.837	1.48E-09	17.05	0.375	0.122	0.253	56,354

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)
1.25E+08	1.89E+08	2.99E-05	15	7,639	3.18E-03	1.32E-01	1.78E-04	1.90E-03	1.19E-02	0.00E+00	4.78E-04	3.03E-03	1205

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
15	3.58E+04	0.10	2.06E+01	1.90E-03	5.64E+03	3.46E+12	1.58E-07	5.65E-03	NA	6.0E-02

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (μg/L)	Indoor exposure groundwater conc., noncarcinogen (μg/L)	Risk-based indoor exposure groundwater conc., (μg/L)	Pure component water solubility, S (μg/L)	Final indoor exposure groundwater conc., (μg/L)
NA	NA	NA	3.50E+06	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	6.5E-05

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

MESSAGE: Risk/HQ or risk-based groundwater concentration is based on a route-to-route extrapolation.

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

SL-ADV
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED SOIL CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL SOIL CONCENTRATION (enter "X" in "YES" box and initial soil conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial soil conc., C_R (µg/kg)	Chemical
123911	3.60E+06	1, 4-Dioxane

MORE ↓

ENTER Average soil temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to top of contamination, L_t (cm)	ENTER Depth below grade to bottom of contamination, (enter value of 0 if value is unknown) L_b (cm)	ENTER Totals must add up to value of L_t (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
19.4	15	15	518	15	0	0	SC		

MORE ↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum A soil organic carbon fraction, f_{oc}^A (unitless)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum B soil organic carbon fraction, f_{oc}^B (unitless)	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)	ENTER Stratum C soil organic carbon fraction, f_{oc}^C (unitless)
Lookup Soil Parameters					Lookup Soil Parameters					Lookup Soil Parameters				
SC	1.63	0.385	0.197	0.002		1.5	0.43		0.002		1.5	0.43		0.002

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1

Used to calculate risk-based soil concentration.

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Physical state at soil temperature, (S,L,G)
8.70E-02	1.10E-05	4.80E-06	25	6,000	374.50	611.00	2.63E+00	1.00E+06	7.7E-06	3.6E+00	L

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Initial soil concentration used, C_R ($\mu g/kg$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
7.88E+08	1	0.188	ERROR	ERROR	0.299	1.77E-09	0.837	1.48E-09	56,354	3.60E+06	1.25E+08

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	Convection path length, L_p (cm)
1.89E+08	2.99E-05	15	6,634	3.87E-06	1.61E-04	1.78E-04	4.30E-03	0.00E+00	0.00E+00	4.30E-03	1	15

Soil-water partition coefficient, K_d (cm^3/g)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source β term (unitless)	Finite source ψ term $(sec)^{-1}$	Time for source depletion, τ_D (sec)	Exposure duration > time for source depletion (YES/NO)
5.26E-03	4.61E+06	0.10	2.06E+01	4.30E-03	5.64E+03	3.51E+05	NA	NA	3.94E+04	3.38E-06	5.90E+12	NO

Finite source indoor attenuation coefficient, $<\alpha>$ (unitless)	Mass limit bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Final finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.65E-07	NA	7.60E-01	7.60E-01	7.7E-06	3.6E+00

END

RESULTS SHEET

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C_{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)
NA	NA	NA	1.26E+08	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.4E-06	1.4E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

SL-ADV
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED SOIL CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL SOIL CONCENTRATION (enter "X" in "YES" box and initial soil conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial soil conc., C_R (µg/kg)	Chemical
91203	3.10E+02	Naphthalene

MORE ↓

ENTER Average soil temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to top of contamination, L_t (cm)	ENTER Depth below grade to bottom of contamination, (enter value of 0 if value is unknown) L_b (cm)	ENTER Totals must add up to value of L_t (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
19.4	15	15	518	15	0	0	SC		

MORE ↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum A soil organic carbon fraction, f_{oc}^A (unitless)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum B soil organic carbon fraction, f_{oc}^B (unitless)	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)	ENTER Stratum C soil organic carbon fraction, f_{oc}^C (unitless)
Lookup Soil Parameters					Lookup Soil Parameters					Lookup Soil Parameters				
SC	1.63	0.385	0.197	0.002		1.5	0.43		0.002		1.5	0.43		0.002

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-04	1

Used to calculate risk-based soil concentration.

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Physical state at soil temperature, (S,L,G)
5.90E-02	7.50E-06	4.82E-04	25	10,373	491.14	748.40	2.00E+03	3.10E+01	3.4E-05	3.0E-03	S

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Initial soil concentration used, C_R ($\mu g/kg$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
7.88E+08	1	0.188	ERROR	ERROR	0.299	1.77E-09	0.837	1.48E-09	56,354	3.10E+02	1.25E+08

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	Convection path length, L_p (cm)
1.89E+08	2.99E-05	15	12,816	3.18E-04	1.33E-02	1.78E-04	1.54E-03	0.00E+00	0.00E+00	1.54E-03	1	15

Soil-water partition coefficient, K_d (cm^3/g)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source β term (unitless)	Finite source ψ term $(sec)^{-1}$	Time for source depletion, τ_D (sec)	Exposure duration > time for source depletion (YES/NO)
4.00E+00	9.98E+02	0.10	2.06E+01	1.54E-03	5.64E+03	3.09E+15	NA	NA	1.41E+04	3.04E-06	2.37E+12	NO

Finite source indoor attenuation coefficient, $<\alpha>$ (unitless)	Mass limit bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Final finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.65E-07	NA	1.65E-04	1.65E-04	3.4E-05	3.0E-03

END

RESULTS SHEET

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C_{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)
NA	NA	NA	1.28E+05	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.4E-09	3.8E-05

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

GW-ADV Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
79016	1.00E+04	Trichloroethylene

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of L_{WT} (cell G28)							
19.4	15	1220	610	610		B	S	SC		

MORE ↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
Lookup Soil Parameters				Lookup Soil Parameters				Lookup Soil Parameters			
SC	1.63	0.385	0.197	S	1.66	0.375	0.054		1.5	0.43	0.215

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm-s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1
				Used to calculate risk-based groundwater concentration.	

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
7.90E-02	9.10E-06	1.03E-02	25	7,505	360.36	544.20	1.66E+02	1.47E+03	2.0E-06	0.0E+00

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
7.88E+08	1205	0.188	0.321	0.215	0.299	1.77E-09	0.837	1.48E-09	17.05	0.375	0.122	0.253	56,354

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)
1.25E+08	1.89E+08	2.99E-05	15	8,440	7.82E-03	3.26E-01	1.78E-04	2.04E-03	1.28E-02	0.00E+00	5.08E-04	3.24E-03	1205

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
15	3.26E+06	0.10	2.06E+01	2.04E-03	5.64E+03	4.93E+11	1.59E-07	5.16E-01	2.0E-06	NA

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (μg/L)	Indoor exposure groundwater conc., noncarcinogen (μg/L)	Risk-based indoor exposure groundwater conc., (μg/L)	Pure component water solubility, S (μg/L)	Final indoor exposure groundwater conc., (μg/L)
NA	NA	NA	1.47E+06	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
2.5E-07	NA

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

SL-ADV
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED SOIL CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL SOIL CONCENTRATION (enter "X" in "YES" box and initial soil conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial soil conc., C_R (µg/kg)	Chemical
79016	4.10E+03	Trichloroethylene

MORE

ENTER Average soil temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to top of contamination, L_t (cm)	ENTER Depth below grade to bottom of contamination, (enter value of 0 if value is unknown) L_b (cm)	ENTER Totals must add up to value of L_t (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
19.4	15	15	518	15	0	0	SC		

MORE

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum A soil organic carbon fraction, f_{oc}^A (unitless)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum B soil organic carbon fraction, f_{oc}^B (unitless)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)	ENTER Stratum C soil organic carbon fraction, f_{oc}^C (unitless)
SC	1.63	0.385	0.197	0.002		1.5	0.43		0.002		1.5	0.43		0.002

MORE

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	17204	10973	823	0.1	2.9	

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1

Used to calculate risk-based soil concentration.

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Physical state at soil temperature, (S,L,G)
7.90E-02	9.10E-06	1.03E-02	25	7,505	360.36	544.20	1.66E+02	1.47E+03	2.0E-06	0.0E+00	L

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Initial soil concentration used, C_R ($\mu g/kg$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
7.88E+08	1	0.188	ERROR	ERROR	0.299	1.77E-09	0.837	1.48E-09	56,354	4.10E+03	1.25E+08

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)	Convection path length, L_p (cm)
1.89E+08	2.99E-05	15	8,440	7.82E-03	3.26E-01	1.78E-04	2.04E-03	0.00E+00	0.00E+00	2.04E-03	1	15

Soil-water partition coefficient, K_d (cm^3/g)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source β term (unitless)	Finite source ψ term $(sec)^{-1}$	Time for source depletion, τ_D (sec)	Exposure duration > time for source depletion (YES/NO)
3.32E-01	2.72E+06	0.10	2.06E+01	2.04E-03	5.64E+03	4.93E+11	NA	NA	1.87E+04	8.32E-04	1.14E+10	NO

Finite source indoor attenuation coefficient, $<\alpha>$ (unitless)	Mass limit bldg. conc., $C_{building}$ ($\mu g/m^3$)	Finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Final finite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.65E-07	NA	4.49E-01	4.49E-01	2.0E-06	NA

END

RESULTS SHEET

RISK-BASED SOIL CONCENTRATION CALCULATIONS:

Indoor exposure soil conc., carcinogen (µg/kg)	Indoor exposure soil conc., noncarcinogen (µg/kg)	Risk-based indoor exposure soil conc., (µg/kg)	Soil saturation conc., C_{sat} (µg/kg)	Final indoor exposure soil conc., (µg/kg)
NA	NA	NA	7.22E+05	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
2.2E-07	NA

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

December 22, 2010

Ms. Alexandra Cleary
Program Manager
Hazardous Sites Response Program
Georgia Environmental Protection Division
2 Martin Luther King, Jr. Drive, SE
Suite 1462 East Floyd Tower
Atlanta, Georgia 30334

Subject: **Addendum to Voluntary Remediation Program Application for Thermo King Corporation - Louisville, Jefferson County, Georgia**
HSI Site No. 10702 Tax Parcel 0090-024
MACTEC Project 6122-09-0322

Dear Ms. Cleary:

Thermo King Corporation is hereby submitting the attached Addendum to the Voluntary Remediation Program Application for the Thermo King Corporation in Louisville, Jefferson County, Georgia (HSI Site No. 10702, Tax Parcel 0090-024). This Addendum is to complete the Voluntary Remediation Program Application and Voluntary Remediation Plan (VRP) initially submitted on January 29 and March 18, 2010 and to address the Environmental Protection Division's (EPD) subsequent comment letters dated May 17, August 31, and October 15, 2010 on the Application.

The Applications and Remediation Plans submitted on January 29 and March 18, 2010, provided data and some of the elements required by the January 2010 VRP checklist. Since the initial Application submittal, additional activities have been conducted to provide supplemental data for the VRP Application and to respond to EPD comments. These activities are summarized as follows and the data provided in the attachment and appendices listed below.

- Water samples were collected from the seeps and the surface water of Manson Branch in April 2010 and analyzed for site-specific volatile organic compounds (VOCs) using USEPA Method 8260B. A water sample from Seep C was also analyzed for 1,4-dioxane using the Selective Ion Monitoring (SIM) methodology. The results are presented on Table 4.6 and on Figure 4.8.

- Groundwater samples were collected from site monitoring wells MW-1 to MW-24 in June 2010. Monitoring wells MW-3, MW-5, MW-10, MW-14, MW-19, and MW-20, which have previously had detections of VOCs, were sampled using two sampling methods. The first sampling method was using passive diffusion bags (PDBs). The second sampling method was using low flow/flow stress purging/sampling via bladder pump. These six monitoring wells were analyzed for the site-specific VOCs using USEPA 8260B and for 1,4-dioxane using VOCs-Selective Ion Method methods. The other 18 monitoring wells MW-1, MW-2, MW-4, MW-6, MW-7, MW-8, MW-9, MW-11, MW-12, MW-13, MW-15, MW-16, MW-17, MW-18, MW-21, MW-22, MW-23, and MW-24 were sampled using PDBs. The groundwater samples from the 18 monitoring were analyzed for the site-specific VOCs using USEPA 8260B. The analytical results are presented on Table 4.5.

- New Intermediate Water-Bearing Zone monitoring well (MW-25) was installed in June 2010 and subsequently sampled to investigate potential impacts to the Intermediate Zone in the area of the former south settling pond. The well construction diagram for this well is provided in Appendix F.

- Hydraulic conductivity tests were conducted in existing and new monitoring wells MW-17, MW-20, MW-22, MW-23, and MW-25. The results of the hydraulic conductivity tests are provided in Appendix G.

- A meeting was conducted with EPD representatives on September 23, 2010 to present the rationale, details and sketches for the proposed rip-rap remedy to better clarify the purpose of the remedy. This meeting was in response to EPD's letters dated May 17 and August 31, 2010. A summary of the meeting is presented in Appendix A. In the meeting, EPD requested the installation and sampling of 3 shallow monitoring wells located between the seeps and Manson Branch. EPD also requested the preparation of a groundwater fate and transport model for the Uppermost Water-Bearing Zone to evaluate the potential for VOCs detected in the Uppermost zone to impact Manson Branch.

- In response to EPD's request, monitoring wells MW-26, MW-27, and MW-28 were installed using hand-augers and pre-packed well screens. The wells were purged and sampled using low flow/low stress methodology with a peristaltic pump. Groundwater samples were collected and analyzed for site-specific VOCs using USEPA method 8260B. The well construction diagrams and the analytical results are provided in Appendices F and H and on Table 4.5, respectively.

- Water levels were measured in the site's 28 monitoring wells in October 2010 and potentiometric surface maps were prepared for the Uppermost Water-Bearing Zone and the Intermediate Water-Bearing Zone from this data (Figures 4.5 and 4.6).

- The ecological risk screening tables were also updated with the 2010 seep and surface water data.

- The Risk Reduction Standards were revised based EPD's May 17, 2010 letter and are included in Appendix A.

The data from these activities are presented on the tables and figures in Appendix A.

- In Attachment A the VRP Checklist was updated to include the 2010 data, the Title Report for the Thermo King property was included along with a list and maps of abutting property owners and a proposed Uniform Environmental Covenant for the site.

- The Remediation Plan was updated to clarify how the rip-rap remedy will be constructed (Appendix C).

- Modeling of the Uppermost Water-Bearing Zone was conducted to assess potential impacts to Manson Branch (Appendix D).

- A groundwater fate and transport model was prepared for the Intermediate Water-Bearing Zone (Appendix E).

The following documents are included in this transmittal to document the above 2010 activities and to complete the Voluntary Remediation Plan and Application:

Attachment A

- Updated VRP Checklist
- Thermo King Corporation Title Report
- List of Abutting Property Owners with Tax Maps
- Proposed Uniform Environmental Covenant

Appendix A

- Response to EPD's May 17, 2010 Comment Letter
- Summary of September 23, 2010 Meeting with EPD
- Table 3.0: Summary of Soil and Ground-Water Samples Collected
- Table 3.2: Summary of Monitoring Well Construction Data
- Table 4.0: Summary of Ground-Water Elevations
- Table 4.1: Summary of Hydraulic Conductivity Testing
- Table 4.2: Summary of Regulated Substances Detected in Surface Soil
- Table 4.3: Summary of Regulated Substances Detected in Subsurface Soil Samples
- Table 4.5: Summary of Regulated Substances Detected in Ground-Water Samples
- Table 4.6: Summary of Detected Constituents in Seeps and Surface Water

- Table 5.1: Comparison of 2010 Seep Water Concentrations to Aquatic Wildlife Screening Values
- Table 5.2: Summary of Ecological Risks in Surface Soil (0-1 ft)
- Table 5.3: Short-Tailed Shrew Toxicity Reference Values
- Table 5.4: Raccoon Toxicity Reference Values
- Table 5.5: Northern Bobwhite Toxicity Reference Values
- Table 5.6: Short-Tailed Shrew Exposure Parameters
- Table 5.7: Raccoon Exposure Parameters
- Table 5.8: Northern Bobwhite Exposure Parameters
- Table 5.9: NOAEL Risk Calculation for the Short-Tailed Shrew
- Table 5.10: NOAEL Risk Calculation for the Raccoon
- Table 5.11: NOAEL Risk Calculation for the Northern Bobwhite
- Table 5.12: TCE Seep Exposure Point Concentration for 2010
- Table 5.13: Summary of NOAEL Hazard Indices
- Table 6.0: Risk Reduction Standards for Ground Water
- Table 6.1: Risk Reduction Standards for Soil – Types 1 through 4
- Figure 3.0: Site Sampling Locations Map
- Figure 4.0: Hydrogeologic Profile Location Map
- Figure 4.1: Hydrogeologic Profile A-A'
- Figure 4.2: Hydrogeologic Profile B B'
- Figure 4.3: Hydrogeologic Profile C C'
- Figure 4.4: Hydrogeologic Profile D D'
- Figure 4.5: Potentiometric Surface Map for Uppermost Water Bearing Zone – October 2010
- Figure 4.6: Potentiometric Surface Map for Intermediate Water Bearing Zone – October 2010
- Figure 4.7: Distribution and Extent of Detected Constituents in Soil
- Figure 4.8: Distribution and Extent of Detected Constituents in Ground Water
- Figure 4.9: Iso concentration Map of Trichloroethene in Ground Water in the Uppermost Water Bearing Zone

- Figure 4.10: Iso concentration Map of cis 1,2 Dichloroethene in Ground Water in the Uppermost Water Bearing Zone
- Figure 6.0: Risk Reduction Standards Compliance Map
- Updated Calculations for Risk Reduction Standards

Appendix C

- Revised Remediation Plan with Conceptual Drawings of the Proposed Remedy
- Groundwater and Surface Water Usage Map
- Gantt Chart Schedule for Implementing Remediation Plan
- Revised Cost Estimate to Implement Remediation Plan

Appendix D: Results of the Modeling of Groundwater in the Uppermost Water-Bearing Zone and Potential Impacts to Manson Branch

Appendix E: Results of the Groundwater Fate & Transport Modeling of the Intermediate Water-Bearing Zone

Appendix F: Well Construction Diagrams for New Wells MW-25, MW-26, MW-27, and MW-28

Appendix G: 2010 Hydraulic Conductivity Testing Results

Appendix H: Laboratory Reports for 2010 Groundwater, Seep, and Surface Water Samples

The following VRP elements have already been submitted to EPD in the January 29 and March 18 Application documents and did not change based on the 2010 activities and are not being re-submitted with this transmittal.

- Applicants and PE/PG Certifications were submitted in the January 29, 210 Application and are not being re-submitted per Kristen Ritter's email of December 6, 2010.
- Warranty Deeds and Tax Maps for the Thermo King Corporation property were submitted in the January 29, 210 Application and are not being re-submitted.
- Response to EPD's Comments on the March 27, 2007 Revised Compliance Status Report
- Response to EPD's February 18, 2010 Comments on the January 29, 2010 VRP Application
- Table 3.1 Summary of Soil Boring Data
- Table 3.3 Summary of Soil Physical Testing Data
- Table 4.2A Delineation Criteria Table for Surface Soil
- Tables 4.3A Delineation Criteria Table for Subsurface Soils
- Table 4.4 Summary of Analytical Results from the Soil-Water Partition (Kd) Study

- Table 4.5A Delineation Criteria Table for Groundwater
- Table 5.0 Protected Animal and Plant Species Occurring within Jefferson and Surrounding Counties, Georgia
- Table 6.2 Summary of Trichloroethene and 1,1,1-Trichloroethane Soil-Water Partition (Kd) Values
- Figure 1.0 Site Location Map
- Figure 2.1 Manufacturing Building and Surrounding Area
- Figure 2.2 Site Layout Map
- Figure 3.1 Soil Sample Locations for Soil Partition Coefficient (Kd) Study
- Figure 4.11 Schematic Interpretation of Contaminant Migration
- Figure 5.1 Screening-Level Ecological Risk Evaluation Conceptual Site Model
- Figure 5.2 Screening-Level Ecological Risk Evaluation Food Chain Model
- Appendix B Vapor Intrusion Model was submitted in the January 29 Application and was revised based on EPD's February 18, 2010 Comments and re-submitted in the March 18, 2010 Application. The results of the 2010 activities did not affect the Vapor Intrusion Model and it is not being re-submitted with this transmittal.
- Gantt Chart Schedule for completing the VRP Application

This submittal provides the remaining elements to complete the VRP Application for the Thermo King Corporation site in Louisville, Jefferson County, Georgia. We request EPD's acceptance of this complete Application in lieu of a HSRA CAP or other HSRA submittals and request full acceptance of this site into the Georgia VRP Program.

Please contact the undersigned at 478-625-7241, if any questions arise.

Sincerely,

THERMO KING CORPORATION

Gregory L. McCray

Gregory McCray
Interim Plant Manager

Enclosures

cc: David Kolb – Thermo King Corporation – Louisville, GA
Dave Sordi – Ingersoll Rand Company
MACTEC

ATTACHMENT A:

UPDATED VRP CHECKLIST

TITLE REPORT FOR THERMO KING COPROPORATION

LIST OF ABUTTING PROPERTY OWNERS WITH TAX MAPS

PROPOSED UNIFORM ENVIRONMENTAL COVENANT

UPDATED VRP CHECKLIST

Voluntary Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION

COMPANY NAME	Thermo King Corporation				
CONTACT PERSON/TITLE	Mr. David A. Kolb				
ADDRESS	1430 Highway 24 East Louisville, Georgia 30434				
PHONE	478-625-7241	**FAX**	478-625-7756	**E-MAIL**	David_Kolb@irco.com

GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP

NAME	Gregory J. Wrenn	**GA PE/PG NUMBER**	PE025565
COMPANY	MACTEC Engineering and Consulting, Inc		
ADDRESS	3200 Town Point Drive		

PHONE	770-421-3472	**FAX**	770-421-3486	**E-MAIL**	gjwrenn@mactec.com

APPLICANT'S CERTIFICATION

In order to be considered a qualifying property for the VRP:

(1) The property must have a release of regulated substances into the environment;
(2) The property shall not be:
- (A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.
- (B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or
- (C) A facility required to have a permit under Code Section 12-8-66.

(3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.
(4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.

In order to be considered a participant under the VRP:
- (1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.
- (2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.

APPLICANT'S SIGNATURE	**[Signed Certification previously submitted in the January 29, 2010 Application]**		
APPLICANT'S NAME/TITLE (PRINT)		**DATE**	

Mail completed Voluntary Remediation Plan Application Form and Checklist, Voluntary Remediation Plan, and $5,000 Application Fee to:

Georgia Hazardous Sites Response Program
VRP Coordinator, Suite 1462
2 Martin Luther King Jr. Drive, SE
Atlanta, GA 30334

QUALIFYING PROPERTY INFORMATION –PROPERTY #1			
TAX PARCEL ID	0090 024	PROPERTY SIZE (ACRES)	110.46
PROPERTY ADDRESS	1430 Highway 24 East		
CITY	Louisville	COUNTY	Jefferson
LATITUDE	33° 0' 10" North	LONGITUDE	82° 23' 16" West
PROPERTY OWNER(S)	Thermo King Corporation	PHONE #	478-625-7241
MAILING ADDRESS	1430 Highway 24 East		
CITY	Louisville	STATE/ZIP	Georgia 30434
QUALIFYING PROPERTY INFORMATION –PROPERTY #2			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
LATITUDE		LONGITUDE	
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIP	
QUALIFYING PROPERTY INFORMATION –PROPERTY #3			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
LATITUDE		LONGITUDE	
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIP	
QUALIFYING PROPERTY INFORMATION –PROPERTY #4			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
LATITUDE		LONGITUDE	
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIP	

Please add additional sheets as necessary to include all qualifying properties.

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (leave Blank)
1	**$5,000 APPLICATION FEE** IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES.	**Submitted in the January 29, 2010 Application**	
2	**WARRANTY DEED(S)** FOR EACH QUALIFYING PROPERTY(IES).	**Submitted in the January 29, 2010 Application**	
3	**TAX PLAT** OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY(IES) BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBERS.	**Thermo King property plat was submitted in the January 29, 2010 Application. Abutting property information is included in Attachment A of this Addendum to the Application**	
4	**ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES** OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	**Attached**	
a	**TABLE OF REGULATED SUBSTANCES RELEASED** AT THE QUALIFYING PROPERTY.	**In Appendix A of this Addendum to the Application: Tables 4.2, 4.3, 4.5, and 4.6**	
b	**TABLE OF SITE DELINEATION CONCENTRATION** FOR EACH REGULATED SUBSTANCE ALONG WITH A REFERENCE TO THE SPECIFIC DELINEATION CRITERIA USED [i.e. 12-8-108(1)(A), 12-8-108(1)(B), 12-8-108(1)(C), 12-8-108(1)(D), OR 12-8-108(1)(E) FOR EACH REGULATED SUBSTANCE. CALCULATIONS FOR 12-8-108(1)(E) MUST BE INCLUDED TO DEMONSTRATE OTHER CRITERIA DO NOT EXCEED 12-8-108(1)(E)].	**In Appendix A of this Addendum to the Application: Tables 4.2, 4.3, 4.5, and 4.6. Also in the January 29, 2010 Application paragraphs 2 and 3 of Section 2.3.**	

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (leave Blank)
i	**SITE DELINEATION MAP** OF MINIMUM SCALE OF 1"= 200' AND VERTICAL CROSS-SECTIONS SHOWING DELINEATION OF REGULATED SUBSTANCES TO SITE DELINEATION CONCENTRATIONS HORIZONTALLY AND VERTICALLY, INCLUDING PROPERTY BOUNDARIES. SITE DELINEATION MAY NOT BE EXTRAPOLATED.	**In Appendix A of this Addendum to the Application: Figures 4.1, 4.2, 4.3, 4.4, 4.7, and 4.8**	
c	**TABLE OF CLEANUP STANDARDS** FOR EACH REGULATED SUBSTANCE AND EACH MEDIA LISTED BELOW ALONG WITH A REFERENCE TO THE SPECIFIC CLEANUP STANDARD USED [i.e. DEFAULT TYPE 1 RRS, SITE SPECIFIC TYPE 2 RRS, DEFAULT TYPE 3 RRS, SITE SPECIFIC TYPE 4 RRS, OR TYPE 5 RRS]. COMPLETE CALCULATIONS MUST BE PROVIDED FOR EACH REGULATED SUBSTANCE IN EACH MEDIA.	**In Appendix C (Remediation Plan) of this Addendum to the Application: Tables VRP-2 and VRP-3.**	
i	**SOURCE**	**See Section 2.3 of the January 29, 2010 Application.**	
ii	**SOIL** (SOIL HORIZONS MUST BE SPECIFIED WHERE DEPTH-SPECIFIC SOIL CRITERIA ARE APPLIED)	**See Site Hydrogeology (Section 2.2) of the January 29, 2010 Application and Figures 4.0 through 4.4 in Appendix A of this Addendum to the Application**	
iii	**GROUNDWATER** IF THE APPLICANT IS REQUESTING REMOVAL FROM THE HAZARDOUS SITE INVENTORY PURSUANT TO 12-8-107(g)(2), A NOTATION TO THAT EFFECT MUST BE INCLUDED IN THE TABLE.	**Not applicable to this site**	
iv	**VAPOR INTRUSION** (PLEASE REFER TO THE FOLLOWING LINK: http://www.epa.gov/epawaste/hazard/correctiveaction/eis/vapor/complete.pdf)	**See Appendix B of the January 29, 2010 Application**	
v	**SURFACE WATER** (INCLUDING ECOLOGICAL RISK ASSESSMENT (http://www.gaepd.org/Documents/hsraguideCSRRRS.html - Ecological))	**See Section 2.4 of the January 29, 2010 Application and Tables 4.6 and Tables 5.1 through 5.13 in Appendix A of this Addendum to the Application**	

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (leave Blank)
d	**CURRENT STATUS** OF QUALIFYING PROPERTY(IES)	**See Sections 1.0 and 2.0 of the January 29, 2010 Application and Attachment A of this Addendum to the Application**	
i	**NARRATIVE AND TABULAR SUMMARY** OF ALL PERTINENT FIELD DATA AND THE RESULTS OF ALL FINAL LAB ANALYSES THAT ARE SUPPORTED BY SUFFICIENT QA/QC CONTROL DATA TO VALIDATE THE RESULTS. (NOTE: MOST RECENT GROUNDWATER DATA MUST HAVE BEEN COLLECTED WITHIN 6 MONTHS OF RECEIPT OF APPLICATION.)	**Existing field and laboratory results are summarized on Tables 3.0 through 5.13 in Appendix A of the January 29, 2010 Application and in Appendix A of this Addendum to the Application. The most recent groundwater data is from June and October 2010. Laboratory reports for the 2010 Groundwater and Surface Water result are in Appendix H of this Addendum to the Application. Appendix F provides well construction diagrams for the new wells installed in 2010 and Appendix G provides the results of hydraulic conductivity testing conducted in 2010.**	

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (leave Blank)
ii	**MAPS AND VERTICAL CROSS-SECTIONS** OF APPROPRIATE SCALE DEPICTING CONCENTRATIONS FOR ALL REGULATED SUBSTANCES SUPERIMPOSED UPON SITE STRATIGRAPHIC FEATURES AND MONITORING WELLS. POINT OF DEMONSTRATION (POD) WELL MUST BE INCLUDED, IF APPLICABLE.	**See Figures 4.1 through 4.4 and 4.7 through 4.10 in Appendix A of this Addendum to the Application.**	
iii	**DESCRIPTION OF ANY HUMAN OR ENVIRONMENTAL RECEPTORS** WHO MAY HAVE BEEN OR COULD POTENTIALLY BE EXPOSED TO A RELEASE AT THE SITE.	**See Section 2.4 of the January 29, 2010 Application**	
e	**MAP** (MINIMUM SCALE OF 1" = 200') OR LESS DEPICTING THE POTENTIOMETRIC SURFACE OF GROUNDWATER. POD WELL MUST BE INCLUDED, IF APPLICABLE.	**See Figures 4.5 and 4.6 in Appendix A of this Addendum to the Application.**	
f	**FIGURE OF GROUNDWATER USAGE** (DRINKING, IRRIGATION, ETC.) **AND SURFACE WATER** (RECREATIONAL, FISHING, ETC.) WITHIN THE AREA OF THE RELEASE AND 1,000' DOWNGRADIENT.	**See Figure VRP-1 in Appendix C (Remediation Plan) of this Addendum to the Application**	
g	**ENUMERATE AND DESCRIBE ACTIONS** PLANNED TO BRING THE QUALIFYING PROPERTY(IES) INTO COMPLIANCE WITH THE CLEANUP STANDARDS SPECIFIED IN 4.c. ABOVE. **IF UTILIZING REPRESENTATIVE CONCENTRATIONS,** DOCUMENTATION REGARDING THE EXPOSURE UNIT, EXPOSURE DURATION, EXPOSURE POINT CONCENTRATION, ETC. MUST BE INCLUDED.	**See Appendix C (Remediation Plan) of this Addendum to the Application and the Risk Reduction Standards calculations in Appendix A of this Addendum**	
h	**MODEL** FOR POINT OF EXPOSURE: APPLICANT MUST EITHER PROVIDE A COPY OF THE MODEL OR LICENSE FOR USE, OR PURCHASING INFORMATION (PURCHASE OF A MODEL WILL BE BILLED TO THE APPLICANT BY EPD) ALONG WITH A TABLE OF ALL INPUT AND OUTPUT PARAMETERS AND SUPPORTING DOCUMENTATION. A SENSITIVITY ANALYSIS MUST ALSO BE INCLUDED.	**See Appendix D for model of the Uppermost zone aquifer and Appendix E for model of the Intermediate zone aquifer in this Addendum to the Application**	
i	**MILESTONE SCHEDULE** INLCUDING SEMI-ANNUAL REPORTING AND SUBMITTAL OF A FINAL COMPLIANCE STATUS REPORT. GANTT CHART FORMAT PREFERRED.	**See Figure VRP-5 in Appendix C**	

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (leave Blank)
		(Remediation Plan) in this Addendum to the Application	
j	**COST ESTIMATE** FOR IMPLEMENTING THE CORRECTIVE ACTION AND ANY CONTINUING ACTIONS SPECIFED IN THE VOLUNTARY REMEDIATION PLAN.	**See Table VRP-1 in Appendix C (Remediation Plan) in this Addendum to the Application**	
k	**SIGNED AND SEALED PE/PG CERTIFICATION** AND SUPPORTING DOCUMENTATION: "I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances. Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." _____ _____ Printed Name and GA PE/PG Number Date _____ Signature and Stamp	**Signed certification previously submitted in the January 29, 2010 Application**	

TITLE REPORT FOR THERMO KING COPROPORATION

ABBOT, MURPHY AND HARVEY, P.C.
ATTORNEYS AND COUNSELLORS AT LAW
190 EAST SEVENTH STREET
POST OFFICE BOX 31
LOUISVILLE, GEORGIA 30434
TELEPHONE (478) 625-7281
FACSIMILE (478) 625-8200
EMAIL JMURPHY_AMHLAW@BELLSOUTH.NET

JOHN R. MURPHY III

W. WRIGHT ABBOT (1892-1969)
JAMES C. ABBOT (1926-1997)
FRED K. HARVEY, JR. (1944-2006)

December 6, 2010
By Email and Regular Mail

Mr. David A . Kolb
ESH and Facility Manager
Thermo King Corporation
1430 Highway 24 East
Louisville , GA 30434

CERTIFICATE OF TITLE
Property Of
THERMO KING CORPORATION

All that tract or parcel of land, together with all improvements located thereon, lying and being in the 82nd GMD, Jefferson County, Georgia, containing **110.47 acres**, more or less, fronting to the North on Georgia Highway 24, slightly East of the City of Louisville, and being bounded now or formerly as follows: On the East by property of Lizzie Quarterman, property of Tommie Quarterman, property of David Quarterman, and property of Mary Clark; on the South by property of Mary Clark; on the West by property of Industrial Development Corporation of Louisville; and on the North by Georgia Highway 24. Said property is composed of that certain **54.47-acre** tract which is shown as PARCEL 2 on plat of survey by Frank J. Ford, Surveyor, dated June 14, 1961, and recorded in Deed Book 62, Page 376, Jefferson County Records; and that certain **56.00-acre** tract which appears on plat of survey by Surveying Solutions, Inc., Jeffrey L. Nipper, Georgia Registered Land Surveyor No. 2736, dated June 27, 2002, revised July 2, 2002 and July 3, 2002, and recorded in Plat Book 2, Page 255, Jefferson County Records. Reference is made to each of said recorded plats for a fuller and more particular description.

This is to certify that I have conducted an examination of the public records of Jefferson County, Georgia, as correctly indexed, regarding the property described above, and BASED UPON SUCH EXAMINATION, it is my opinion that the marketable, fee simple title to the aforesaid property is vested in THERMO KING CORPORATION.

Such fee simple title, however, is subject to the following liens, restrictions, easements, objections and other exceptions, to-wit:

1. Statutory liens of general contractors, sub-contractors, materialmen, mechanics or laborers, of which no notice appears of record. If any improvements have been placed on this property within the past 90 days, proof is required that all bills of labor and materials have been paid in full.

2. Any encroachments, easements, measurements, party walls or other facts which a current, correct survey of the premises would show.

3. Rights, if any, of parties who may be in possession under claims not appearing of record, or other matters not of record, including any rights or claims in appliances or personal property attached or unattached to the real estate or buildings, forgery, insanity, or minority of a maker.

4. All zoning laws, ordinances or regulations, and all governmental regulations of the use and occupancy of the above-described property, including the regulation of the land or any building or structure thereon, or the effect of any violation of any such zoning laws, ordinances or regulations.

5. This property does not lie within a planned unit development or a condominium.

6. This property is identified on the Jefferson County Tax Digest as Parcel 024 on Map 0090, and is returned as a 110.46-acre parcel, billed to Thermo King Corporation. (Please note the 0.01-acre discrepancy). The 2010 property taxes and the 2010 inventory and equipment taxes are now due and payable, but have not yet been paid. The due date is December 20.

7. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated November 8, 1967, and recorded in Deed Book 74, Page 436, Jefferson County Records.

8. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated April 9, 1968, and recorded in Deed Book 76, Page 538, Jefferson County Records.

9. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated April 1, 1971, and recorded in Deed Book 90, Page 269, Jefferson County Records.

10. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated August 16, 1972, and recorded in Deed Book 95, Page 399, Jefferson County Records.

11. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated November 14, 1972, and recorded in Deed Book 95, Page 409, Jefferson County Records.

12. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated October 17, 1973, and recorded in Deed Book 101, Page 211, Jefferson County Records.

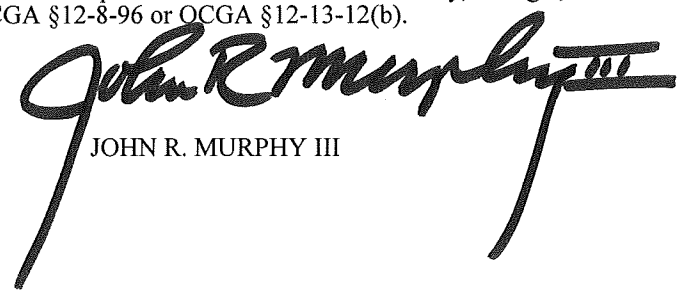
13. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated January 23, 1974, and recorded in Deed Book 103, Page 222, Jefferson County Records.

14. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated February 9, 1989, and recorded in Deed Book 171, Page 283, Jefferson County Records.

15. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated January 31, 1990, and recorded in Deed Book 177, Page 137, Jefferson County Records.

16. The subject property is not listed on the Federal National Priorities List pursuant to CERCLA (42 U.S.C. §9601). The public records do not show that the property is currently affected by any order or directive by the Federal Environmental Protection Agency or the Environmental Protection Division of the Georgia Department of Natural Resources.

17. There have been no liens filed on the public records of Jefferson County, Georgia, affecting the subject property, pursuant to OCGA §12-8-96 or OCGA §12-13-12(b).

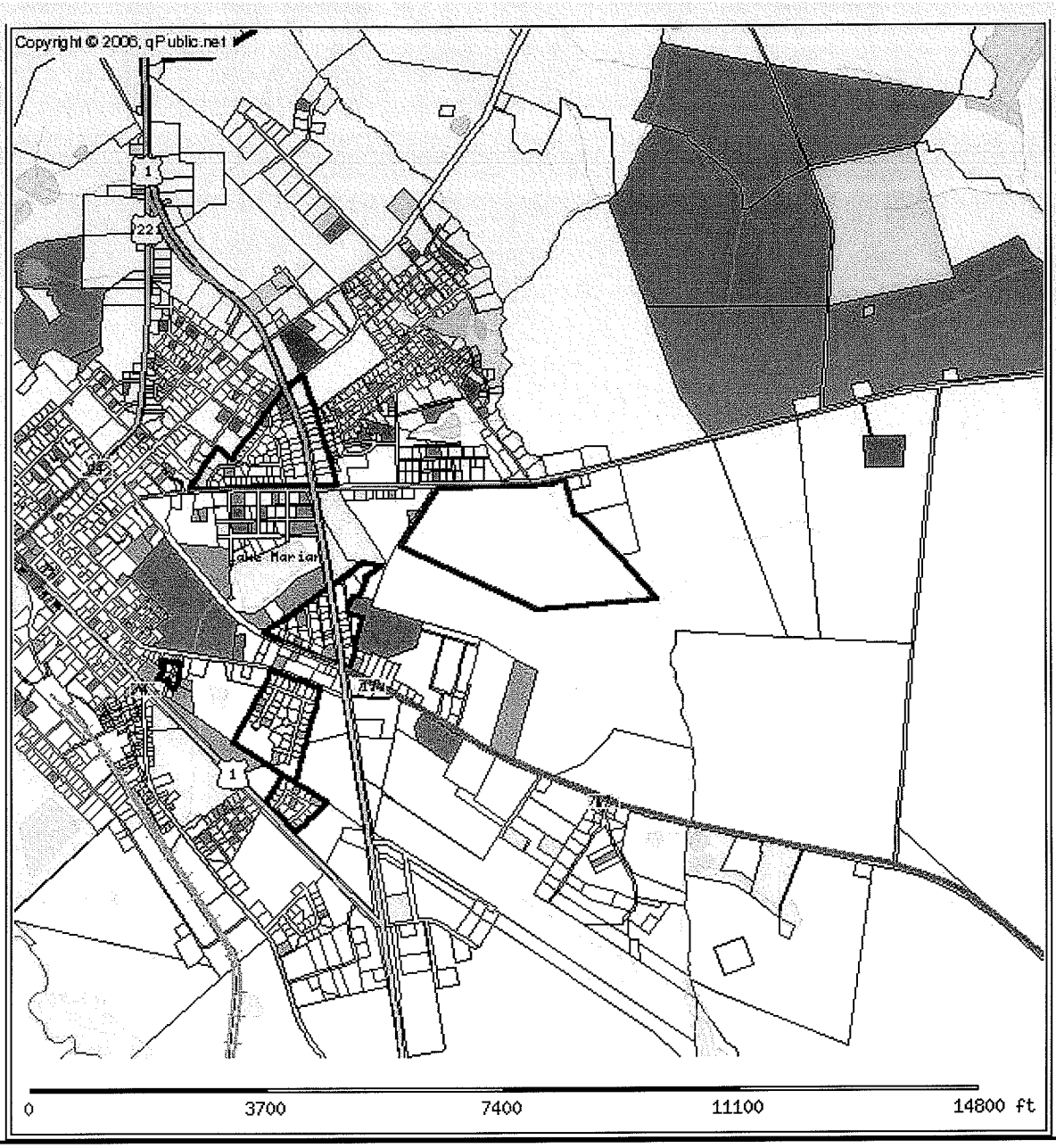


JOHN R. MURPHY III

cc: Ms. Rhonda Quinn

LIST OF ABUTTING PROPERTY OWNERS WITH TAX MAPS

Property Parcel Identification	**Parcel Owner and Contact Information**
Thermo King Corporation (VRP Applicant) Parcel 0090 024 (110.47 acres) Location: 1430 E. Highway 24	Thermo King Corp. c/o Real Property Tax Advisor 3424 Peachtree Road, Suite 430 Atlanta, GA 30326
Lizzie W. Quarterman (borders Thermo King Corp property on the northeast corner) Parcel 0090 023 (1.18 acres) 1786 Highway 24 East Louisville, GA 30434	Lizzie W. Quarterman 1786 Highway 24 East Louisville, GA 30434
Tommie W. Quarterman (borders Thermo King Corp property on the northeast corner) Parcel 0090 071 (10 acres) 0 Highway 24	Tommie W. Quarterman 8239 Bent Meadow Drive Converse, TX 78109
David Quarterman (borders Thermo King Corp property on the east side) Parcel 0090 074 (10 acres) 0 Highway 24	David Quarterman 1786 Highway 24 East Louisville, GA 30434
Mary Clark (borders Thermo King Corp property on the east, south and southwest sides) Parcel 0090 025 (272.04 acres) 2134 Highway 24	Mary Clark (formerly owned by Ethel B. Clark) P.O. Box 188 Louisville, GA 30434
Industrial Development Corporation of Louisville, Inc. (borders Thermo King Corp property on the west side) Parcel L004 004 (1.48 acres)	Industrial Development Corporation of Louisville, Inc. P.O. Box 467 Louisville, GA 30434



PARCEL INFORMATION TABLE	
Selected Parcel	0090 024
Class Code (NOTE: Not Zoning Info)	I5
Taxing District	County
Acres	110.46
OWNERSHIP INFORMATION	
Name	THERMO KING CORP
Mailing Address	C/O REAL PROPERTY TAX ADVISOR 3424 PEACHTREE RD STE 430 ATLANTA, GA 30326
Situs/Physical Address	1430 E HWY 24
VALUES	
Land Value	$552,300.00
Improvement Value	$3,305,498.00
Accessory Value	$171,617.00
Total Value	$4,029,415.00

LAST 2 SALES

Date	Price	Reason	Qual
07-2002	$128,800	3F	U
01-1965	$0	NM	U

PARCEL INFORMATION TABLE	
Selected Parcel	0090 023
Class Code (NOTE: Not Zoning Info)	R3
Taxing District	County
Acres	1.18
OWNERSHIP INFORMATION	
Name	QUARTERMAN LIZZIE W
Mailing Address	1786 HWY 24 EAST LOUISVILLE, GA 30434
Situs/Physical Address	1786 HWY 24 E
VALUES	
Land Value	$8,189.00
Improvement Value	$38,225.00
Accessory Value	$5,313.00
Total Value	$51,727.00

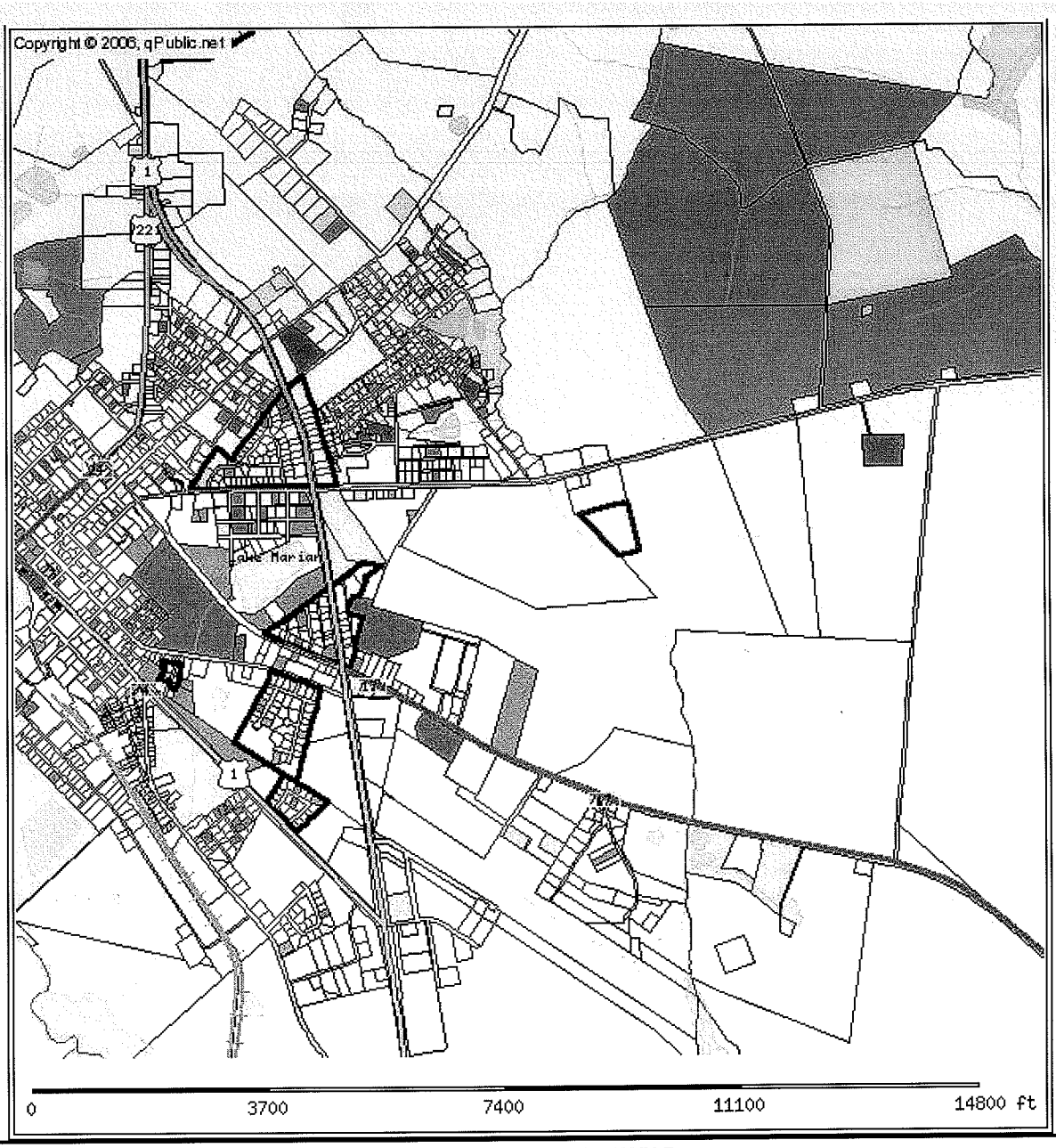
LAST 2 SALES

Date	Price	Reason	Qual
01-1994	$0	3	U

PARCEL INFORMATION TABLE	
Selected Parcel	0090 071
Class Code (NOTE: Not Zoning Info)	V3
Taxing District	County
Acres	10
OWNERSHIP INFORMATION	
Name	QUARTERMAN TOMMIE
Mailing Address	8239 BENT MEADOW DR CONVERSE, TX 78109
Situs/Physical Address	0 HWY 24
VALUES	
Land Value	$40,045.00
Improvement Value	$0.00
Accessory Value	$0.00
Total Value	$40,045.00

LAST 2 SALES

Date	Price	Reason	Qual
08-2001	$20,000	LM	Q



PARCEL INFORMATION TABLE	
Selected Parcel	0090 074
Class Code (NOTE: Not Zoning Info)	V3
Taxing District	County
Acres	10
OWNERSHIP INFORMATION	
Name	QUARTERMAN DAVID
Mailing Address	1786 HIGHWAY 24 EAST LOUISVILLE, GA 30434
Situs/Physical Address	0 HWY 24
VALUES	
Land Value	$38,260.00
Improvement Value	$0.00
Accessory Value	$0.00
Total Value	$38,260.00

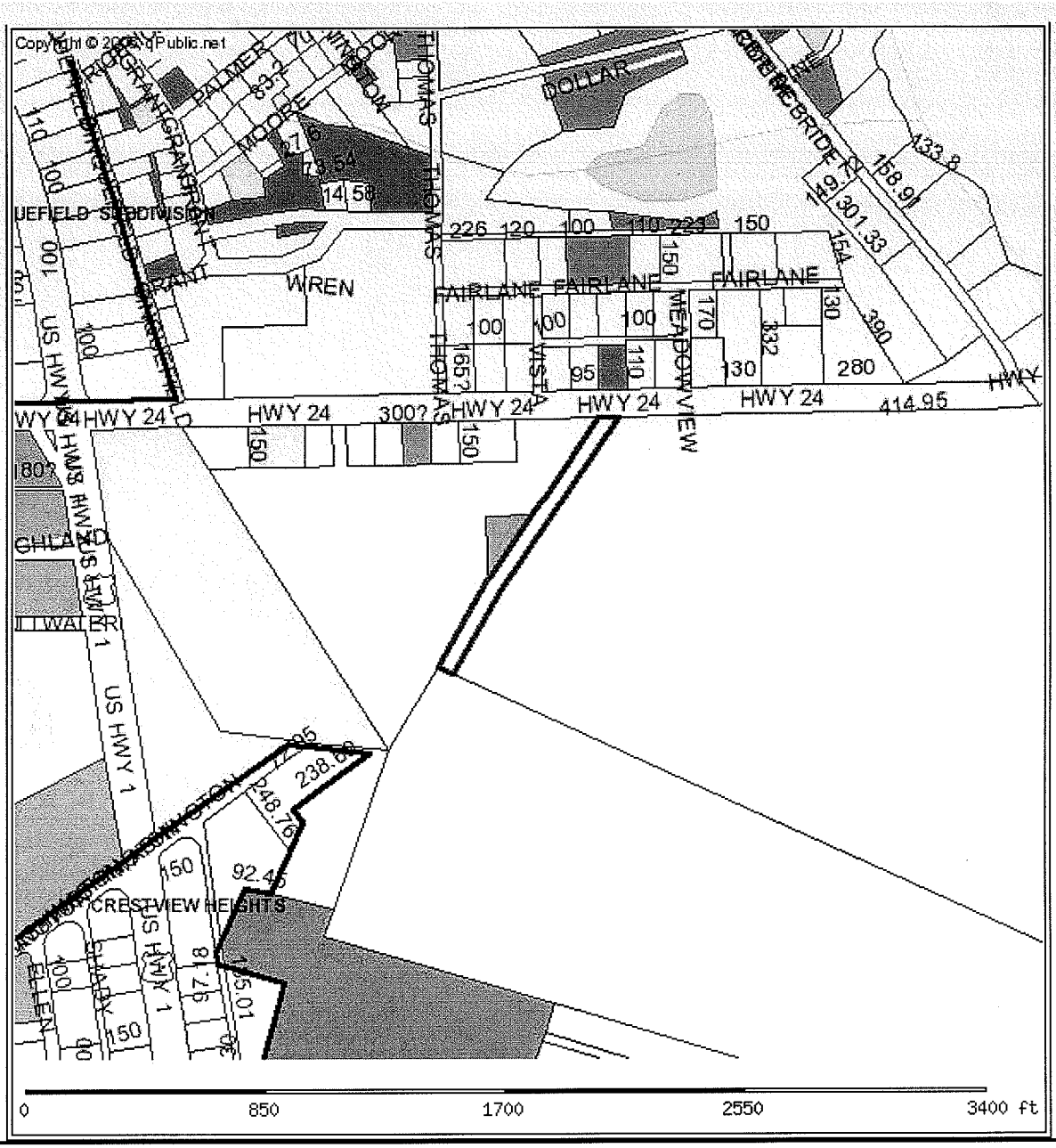
LAST 2 SALES

Date	Price	Reason	Qual
04-2005	$0	3E	U

PARCEL INFORMATION TABLE	
Selected Parcel	0090 025
Class Code (NOTE: Not Zoning Info)	J5
Taxing District	County
Acres	272.04
OWNERSHIP INFORMATION	
Name	CLARK MARY
Mailing Address	P O BOX 188 LOUISVILLE, GA 30434
Situs/Physical Address	2134 HWY 24
VALUES	
Land Value	$408,310.00
Improvement Value	$115,263.00
Accessory Value	$10,347.00
Total Value	$533,920.00

LAST 2 SALES

Date	Price	Reason	Qual
06-2004	$0	3H	U
02-1986	$0	NM	U



PARCEL INFORMATION TABLE	
Selected Parcel	L004 004
Class Code (NOTE: Not Zoning Info)	R3
Taxing District	Louisville
Acres	1.48
OWNERSHIP INFORMATION	
Name	INDUSTRIAL DEVELOPMENT
Mailing Address	CORP OF LOUISVILLE INC P O BOX 467 LOUISVILLE, GA 30434
Situs/Physical Address	0
VALUES	
Land Value	$8,708.00
Improvement Value	$0.00
Accessory Value	$0.00
Total Value	$8,708.00

LAST 2 SALES

Date	Price	Reason	Qual
07-1988	$10	LM	Q
07-1978	$0	NM	U

PROPOSED UNIFORM ENVIRONMENTAL COVENANT

After Recording Return to:

Georgia Environmental Protection Division
Response and Remediation Program
2 Martin Luther King, Jr. Drive, SE
Suite 1462 East
Atlanta, Georgia 30334

Environmental Covenant

This instrument is an Environmental Covenant executed pursuant to the Georgia Uniform Environmental Covenants Act, OCGA § 44-16-1, *et seq.* This Environmental Covenant subjects the Property identified below to the activity and/or use limitations specified in this document. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded in accordance with OCGA § 44-16-8(a).

Fee Owner of Property/Grantor:	Thermo King Corporation 1430 Highway 24 East Louisville, Georgia 30434
Grantee/Holder:	Thermo King Corporation 1430 Highway 24 East Louisville, Georgia 30434
Grantee/Entity with express power to enforce:	State of Georgia Department of Natural Resources Environmental Protection Division 2 Martin Luther King Jr. Drive, SE Suite 1152 East Tower Atlanta, GA 30334
Parties with interest in the Property:	none

Property:

The property subject to this Environmental Covenant is the <Thermo King Corporation> (hereinafter "Property"), located on <1430 Highway 24 East> in <Louisville>, <Jefferson> County, Georgia. These tracts of land was conveyed on January 18, 1965 from the Draper Corporation to Thermo King Corporation recorded in Deed Book 62, Page 376 (54.47-acre tract) and on July 24, 2002 from Mrs. Ethel B. (Mrs. R.H. Jr) Clark to Thermo King Corporation recorded in Deed Book 325, Page 81 and on Plat Book 2, Page 255 (56.00-acre tract), <Jefferson> County Records. The area is located in Land Lot (Louisville, GA is not in the Land Lot system) 0090 024 (parcel) of the 82th GMD District of <Jefferson> County, Georgia. <Property is a total of 110.47 acres zoned industrial, bounded on the North by Highway 24 East, on the East by properties owned by Lizzie Quarterman, Tommie Quarterman, David Quarterman, and Ethel B. Clark, bounded on the South by other property owned by Ethel B. Clark and bounded on the West by Industrial Development Corporation of Louisville, Inc > A complete legal description of the area is attached as Exhibit A and maps of the area is attached as Exhibit B.

Tax Parcel Number(s):

<0090 024> of <Jefferson> County, Georgia

Name and Location of Administrative Records:

The corrective action at the Property that is the subject of this Environmental Covenant is described in the following document[s]:

- Voluntary Remediation Plan and Application Fee Pursuant to the Georgia Voluntary Remediation Program Act, Thermo King Corporation – Louisville, Georgia, HSI Site # 10702, dated January 29, 2010, March 18, 2010, and December 22, 2010.

These documents are available at the following locations:

Georgia Environmental Protection Division
Response and Remediation Program
2 MLK Jr. Drive, SE, Suite 1462 East Tower
Atlanta, GA 30334
M-F 8:00 AM to 4:30 PM excluding state holidays

Thermo King Corporation
1430 Highway 24 East
Louisville, GA 30434

Description of Contamination and Corrective Action:

This Property has been listed on the state's hazardous site inventory and has been designated as needing corrective action due to the presence of hazardous wastes, hazardous constituents, or hazardous substances regulated under state law. Contact the property owner or the Georgia Environmental Protection Division for further information concerning this Property. This notice is provided in compliance with the Georgia Hazardous Site Response Act.

This Declaration of Covenant is made pursuant to the Georgia Uniform Environmental Covenants Act, O.C.G.A. § 44-16-1 *et seq*. by <Thermo King Corporation>, its successors and assigns, < Thermo King Corporation >, and the State of Georgia, Department of Natural Resources, Environmental Protection Division (hereinafter "EPD"), its successors and assigns. This Environmental Covenant is required because a release of <Volatile Organic Compounds (VOCs): Trichloroethene; cis-1,2-Dichloroethene; 1,1-Dichloroethene; 1,4-Dioxane; 1,1,1-Trichloroethane; Tetrachloroethene, and Toluene> occurred on the Property. < Trichloroethene; cis-1,2-Dichloroethene; 1,1-Dichloroethene; 1,4-Dioxane; 1,1,1-Trichloroethane; Tetrachloroethene, and Toluene > are "regulated substances" as defined under the Georgia Hazardous Site Response Act, O.C.G.A. § 12-8-90 *et seq.*, and the rules promulgated thereunder (hereinafter "HSRA" and "Rules", respectively). The Corrective Action consists of the installation and maintenance of engineering controls (<To control/preclude the surface expression of those seeps where VOC concentrations exceed In-stream Surface Water Quality Criteria (ISWQC), a rip rap cover will be placed to create an exposure barrier to the seep water. Also, the building floor slab will be designated as an exposure barrier to the area of the underlying impacted soils. Future operations that require penetration of that designated floor slab area will be conducted using a health and safety plan prepared specifically for the proposed barrier affecting activity.>) and institutional controls (<institutional controls (deed restrictions) will be used to restrict use of site

groundwater and to maintain the floor slab exposure barrier>) to protect human health and the environment.

Grantor, < Thermo King Corporation > (hereinafter "<Thermo King Corporation >"), hereby binds Grantor, its successors and assigns to the activity and use restriction(s) for the Property identified herein and grants such other rights under this Environmental Covenant in favor of the < Thermo King Corporation > and EPD. EPD shall have full right of enforcement of the rights conveyed under this Environmental Covenant pursuant to HSRA, O.C.G.A. § 12-8-90 *et seq*., and the rules promulgated thereunder. Failure to timely enforce compliance with this Environmental Covenant or the use or activity limitations contained herein by any person shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall restrict EPD from excising any authority under applicable law.

< Thermo King Corporation > makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, pursuant to O.C.G.A. § 44-16-5(a); is perpetual, unless modified or terminated pursuant to the terms of this Covenant pursuant to O.C.G.A. § 44-16-9; and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereinafter "Owner"). Should a transfer or sale of the Property occur before such time as this Environmental Covenant has been amended or revoked then said Environmental Covenant shall be binding on the transferee(s) or purchaser(s).

The Environmental Covenant shall inure to the benefit of < Thermo King Corporation >, EPD, < Thermo King Corporation > and their respective successors and assigns and shall be enforceable by the Director or his agents or assigns, <Thermo King Corporation > or its successors and assigns, < Thermo King Corporation > or its successors and assigns, and other party(ies) as provided for in O.C.G.A. § 44-16-11 in a court of competent jurisdiction.

Activity and/or Use Limitation(s)

1. Registry. Pursuant to O.C.G.A. § 44-16-12, this Environmental Covenant and any amendment or termination thereof, may be contained in EPD's registry for environmental covenants.

2. Notice. The Owner of the Property must give thirty (30) day advance written notice to EPD of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Corrective Action. The Owner of the Property must also give thirty (30) day advance written notice to EPD of the Owner's intent to change the use of the Property, apply for building permit(s), or propose any site work that would affect the Property.

3. Notice of Limitation in Future Conveyances. Each instrument hereafter conveying an interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of the Environmental Covenant.

4. Monitoring. <*Groundwater samples will be collected from designated monitoring wells and analyzed for site-specific VOCs for a monitoring period of at least 5 years. Water samples will be collected from designated seeps and from designated locations in Manson Branch and analyzed for site-specific VOCs for a monitoring period of at least 5 years.* >

5. Periodic Reporting. Annually, by no later than <12/31/2011> following the effective date of this Environmental Covenant, the Owner shall submit to EPD an Annual Report as specified in the <schedule presented in the Voluntary Remediation Plan, dated December 22, 2010. >.

6. Activity and Use Limitation(s). The Property shall be used only for non-residential uses, as defined in Section 391-3-19-.02 of the Rules and defined in and allowed under the <Jefferson> County's zoning regulations as of the date of this Environmental Covenant. Any residential use on the Property shall be prohibited. Any activity on the Property that may result in the release or exposure to the regulated substances that were contained as part of the Corrective Action, or create a new exposure pathway, is prohibited. With the exception of work necessary for the maintenance, repair, or replacement of engineering controls, activities that are prohibited <if appropriate – for example, in the capped areas include, but are not limited to the following: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork>.

7. Groundwater Limitation. The use or extraction of groundwater beneath the Property for drinking water or for any other non-remedial purposes shall be prohibited.

8. Permanent Markers. Permanent markers on each side of the Property shall be installed and maintained that delineate the restricted area as specified in Section 391-3-19-.07(10) of the Rules. Disturbance or removal of such markers is prohibited.

9. Right of Access. In addition to any rights already possessed by EPD and/or the < Thermo King Corporation >, the Owner shall allow authorized representatives of EPD and/or < Thermo King Corporation > the right to enter the Property at reasonable times for the purpose of evaluating the Corrective Action; to take samples, to inspect the Corrective Action conducted at the Property, to determine compliance with this Environmental Covenant, and to inspect records that are related to the Corrective Action.

10. Recording of Environmental Covenant and Proof of Notification. Within thirty (30) days after the date of the Director's signature, the Owner shall file this Environmental Covenant with the Recorders of Deeds for each County in which the Property is located, and send a file stamped copy of this Environmental Covenant to EPD within thirty (30) days of recording. Within that time period, the Owner shall also send a file-stamped copy to each of the following: (1) < Thermo King Corporation >, (2) each person holding a recorded interest in the Property subject to the covenant, (3) each person in possession of the real property subject to the covenant, (4) each municipality, county, consolidated government, or other unit of local government in which real property subject to the covenant is located, and (5) each owner in fee simple whose property abuts the property subject to the Environmental Covenant.

11. Termination or Modification. The Environmental Covenant shall remain in full force and effect in accordance with O.C.G.A. § 44-5-60, unless and until the Director determines that the Property is in compliance with the Type 1, 2, 3, or 4 Risk Reduction Standards, as defined in Georgia Rules of Hazardous Site Response (Rules) Section 391-3-19-.07 and removes the Property from the Hazardous Site Inventory, whereupon the Environmental Covenant may be amended or revoked in accordance with Section 391-3-19-08(7) of the Rules and O.C.G.A. § 44-16-1 *et seq*.

12. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

13. No Property Interest Created in EPD. This Environmental Covenant does not in any way create any interest by EPD in the Property that is subject to the Environmental Covenant. Furthermore, the act of approving this Environmental Covenant does not in any way create any interest by EPD in the Property in accordance with O.C.G.A. § 44-16-3(b).

Representations and Warranties.

Grantor hereby represents and warrants to the other signatories hereto:

a) That the Grantor has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;
b) That the Grantor is the sole owner of the Property and holds fee simple title which is free, clear and unencumbered;
c) That the Grantor has identified all other parties that hold any interest (e.g., encumbrance) in the Property and notified such parties of the Grantor's intention to enter into this Environmental Covenant;
d) That this Environmental Covenant will not materially violate, contravene, or constitute a material default under any other agreement, document or instrument to which Grantor is a party, by which Grantor may be bound or affected;
e) That the Grantor has served each of the people or entities referenced in Activity 10 above with an identical copy of this Environmental Covenant in accordance with O.C.G.A. § 44-16-4(d).
f) That this Environmental Covenant will not materially violate or contravene any zoning law or other law regulating use of the Property; and
g) That this Environmental Covenant does not authorize a use of the Property that is otherwise prohibited by a recorded instrument that has priority over the Environmental Covenant.

Notices.

Any document or communication required to be sent pursuant to the terms of this Environmental Covenant shall be sent to the following persons:

Georgia Environmental Protection Division
Branch Chief
Land Protection Branch
2 Martin Luther King Jr. Drive SE
Suite 1154 East Tower
Atlanta, GA 30334

<Thermo King Corporation
1430 Highway 24 East
Louisville, Georgia 30434
>

Grantor has caused this Environmental Covenant to be executed pursuant to The Georgia Uniform Environmental Covenants Act, on the _____ day of _____, 20___.

<NAME OF GRANTOR>

_____

[Name of Signatory]

[Title]

Dated: _____

<NAME OF HOLDER>

_____

[Name of Person Acknowledging Receipt]
[Title]

Dated: _____

STATE OF GEORGIA
ENVIRONMENTAL PROTECTION DIVISION

_____

[Name of Person Acknowledging Receipt]
[Title]

Dated: _____

[INDIVIDUAL ACKNOWLEDGMENT]

STATE OF Georgia
COUNTY OF Jefferson

On this _____ day of _____, 20__, I certify that _____ personally appeared before me, and acknowledged that **he/she** is the individual described herein and who executed the within and foregoing instrument and signed the same at **his/her** free and voluntary act and deed for the uses and purposes therein mentioned.

_____
Notary Public in and for the State of
Georgia, residing at _____.
My appointment expires_____.

[CORPORATE ACKNOWLEDGMENT]

STATE OF _____
COUNTY OF _____

On this _____ day of _____, 20__, I certify that _____ personally appeared before me, acknowledged that **he/she** is the _____ of the corporation that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that **he/she** was authorized to execute said instrument for said corporation.

_____
Notary Public in and for the State of
Georgia, residing at _____.
My appointment expires_____.

[REPRESENTATIVE ACKNOWLEDGEMENT]

STATE OF _____
COUNTY OF _____

On this _____ day of _____, 20__, I certify that _____ personally appeared before me, acknowledged that **he/she** signed this instrument, on oath stated that **he/she** was authorized to execute this instrument, and acknowledged it as the _____ [type of authority] of _____ [name of party being represented] to be the free and voluntary act and deed of such party for the uses and purposes mentioned in the instrument.

_____
Notary Public in and for the State of
Georgia, residing at _____.
My appointment expires _____.

Exhibit A
Legal Description

COMMONWEALTH OF MASSACHUSETTS — Warranty Deed
COUNTY OF WORCHESTER

THIS INDENTURE made this 18th day of January, 1965, by and between DRAPER CORPORATION a corporation of the State of Maine, with principal offices at Hopedale, Massachusetts, of the First Part, and THERMO KING CORPORATION, a corporation of the State of Delaware, the principal offices at Bloomington, Minnesota, of the Second Part:

WITNESSETH: That the said Party of the First Part, for and in consideration of the sum of Ten ($10.00) Dollars and other valuable considerations, in hand paid, at and before the sealing and delivering of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed and confirmed, and by these presence does grant, bargain, sell, alien, convey and confirm unto the said Party of the Second Part, its successors and assigns, all the following described property, to-wit:

All that tract or parcel of land situate, lying and being in the 82nd District G.M. of Jefferson County, Georgia, containing Fifty Four and Forty Seven One-hundredths (54.47) acres more or less, being Parcel No. 2 appearing on plat of survey made by Frank J. Ford, Surveyor, dated June 14, 1961, and recorded in the office of the Clerk of Superior Court of Jefferson County, Georgia, in Deed Book 62, page 376, and being bounded on the North by Georgia State Highway 24 leading from Louisville to Waynesboro, Georgia, on the East by property of R. H. Clark, Jr., on the South by property of R. H. Clark, Jr., and on the West by Parcel No. 1 appearing on said plat.

Said premises are conveyed subject to two electric line and pole easements executed by R. H. Clark, Jr., the first being to Georgia Power Company dated July 5, 1949 and recorded in said Office in Deed Book 3-L, Page 513 and the second being to Jefferson County Electric Membership Corporation dated September 20, 1948 and recorded in said office in Deed Book 3-N, page 389.

TO HAVE AND TO HOLD the said above granted and described property, with all and singular the rights, members and appurtenances thereunto appertaining, to the only proper use, benefit and behoof of the said Party of the Second Part, its successors and assigns, in FEE SIMPLE, and the said Party of the First Part, the said bargained property above described unto the said Party of the Second Part, its successors and assigns, against the said Party of the First Part, its successors and assigns, and against all and every other person or persons shall and will and does hereby, warrant and forever defend, by virtue of these presents.

IN WITNESS WHEREOF, the said Party of the First Part has hereunto set its hand and affixed its seal, and delivered these presents the day and year first above written.

Signed, sealed and delivered in the presence of:

Thad R. Jackson

Charles W Mongeon (N.P. SEAL)
Notary Public

DOCUMENTARY STAMP UNITED STATES INTERNAL REVENUE $1.35 1-9-65

DRAPER CORPORATION (CORP. SEAL)

by James H. Richardson
Financial Vice President

Attest: Robert D Douley
Secretary

CERTIFICATION OF VOTE

This certifies that at a regular meeting of the Directors of Draper Corporation, duly held at the office of the corporation in Hopedale, Massachusetts, on November 27, 1964, a quorum being present and acting throughout, the following vote was unanimously passed:

VOTED: That the Financial Vice Presidant, James H. Richardson, be and hereby is authorized and empowered to make, in such form as he shall determine, and to sign, seal, acknowledged and deliver on behalf of the corporation a warranty deed conveying to Thermo King, a Delaware corporation, certain land with buildings thereon located inthe 82nd District G.M. of Jefferson County, Georgia, containing 54.47 acres more or less and being the same land conveyed to this corporation by Louisville Chamber of Commerce by deed dated June 14, 1961, and recorded in the office of the Clerk of Superior Court of Jefferson County, Georgia in Deed Book 62, page 387.

I further certify that the deed to which this certificate is attached was prepared and executed in accordance with the authority granted in the above vote and that the land described in said deed is the same land described in said vote.

(CORPORATION SEAL)
Jan. 18, 1965

Robert D Dauley
Secretary of Draper Corporation

Filed and recorded in office February 4th, 1965
E. J. Smith, Clerk of Courts, bm

GEORGIA, JEFFERSON COUNTY

THIS INDENTURE made this 20th day of January, 1965, by and between Jefferson County Electric Membership Corporation, a corporation of Jefferson County, Georgia, Party of the First Part, and Thermo-King Corporation, a corporation of the State of Minnesota, Party of the Second Part,

WITNESSETH

WHEREAS, Party of the Second Part recently purchased the property hereinafter described;

WHEREAS, by instrument dated September 20, 1948, and recorded in the Office of the Clerk of the Superior Court of Jefferson County, Georgia, in Deed Book 3-N, page 389, one R. H. Clark, a predecessor in title, conveyedto Party of the First Part an electric line and pole easement as to property hereinafter described was a part; and,

WHEREAS, Party of the First Part has constructed no lines and poles on said property and does not propose to do so;

NOW, THEREFORE, in consideration of Ten ($10.00) Dollars cash in had paid, receipt whereof is hereby acknowledged, Party of the First Part hereby remises, releases, and forever quitclaims to Party of the Second Part, its successors and assigns, al the right, title and interest, claim or demand Party of the First Part has or may have had in and to the following described property, to-wit:

All that tract or parcel of land situate, lying and being in the 82nd District G.M. of Jefferson County, Georgia, containing Fifty Four and Forty Seven One-hundredths (54.47) acres, more or less, being Parcel No. 2 appearing on plat of survey made by Frank J. Ford Surveyor, dated June 14, 1961, and recorded in the Office of the Clerk of Superior Court of Jefferson County, Georgia, in Deed Book 62, page 376, and being bounded on the North by Georgia State Highway 24 leading from Louisville to Waynesboro, Georgia, on the East by property of R. H. Clark, Jr., on the South by property of R. H. Clark, Jr., and on the West by Parcel No. 1 appearing on said plat.

TO HAVE AND TO HOLD the said property to the said Party of the Second Part so that neither the said Party of the First Part nor its successors nor any other person or persons claiming under it shall at any time, by any means, or ways, have, claim or demand any right or title to the aforesaid property or its appurtenances or any rights thereof.

IN WITNESS WHEREOF, the said Party of the First Part has hereunto set its hand, affixed its seal and delivered these presents, theday and year first above written.

Signed, sealed and delivered in the presence of:

Mary R. Gibson

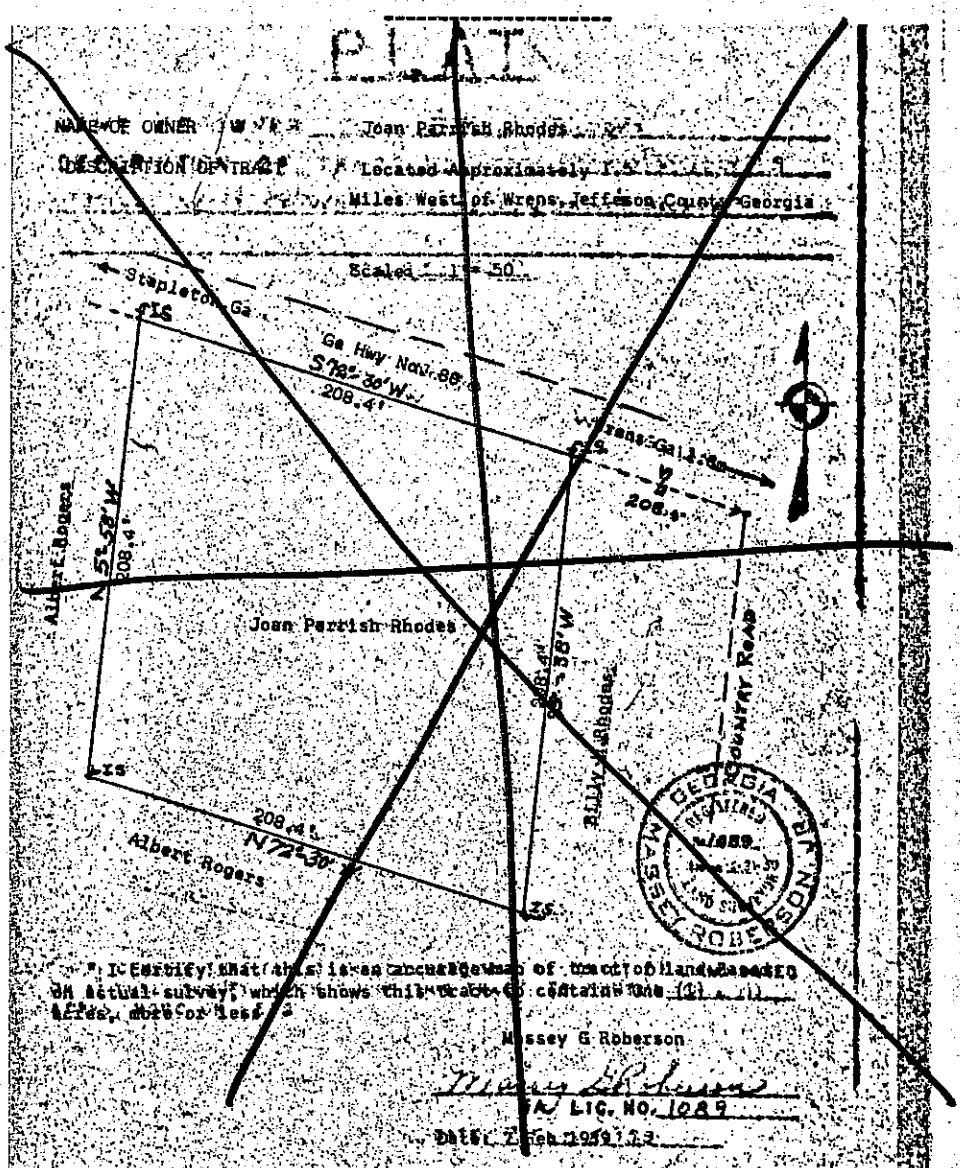
Doris W. Stanley, N.P. (N.P. SEAL)
Notary Public
Notary Public, Jefferson County, Georgia
My Commission Expires Jan. 27, 1968

JEFFERSON COUNTY ELECTRIC MEMBERSHIP CORPORATION

By: L C Rowland President

Attest: J Smith Johnson Secretary

Filed and recorded in office February 4th, 1965
E. J. Smith, Clerk of Court, bm



Recorded February 5,1965

JEFFERSON COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 28.80
Date 7-24-02
Deputy Clerk of Superior Court

GEORGIA JEFFERSON COUNTY
OFFICE OF CLERK OF SUPERIOR COURT
FILED FOR RECORD 7-24 2002
4:05 O'CLOCK P M
RECORDED 7-25 2002 IN
Deed BOOK 325 PAGE 81-82
DEPUTY CLERK

SPACE ABOVE THIS LINE FOR RECORDING DATA
NOTE TO CLERK OF SUPERIOR COURT:
AFTER RECORDING, THIS DOCUMENT
SHOULD BE RETURNED TO:
W. Darr Smith, Esquire
Hunton & Williams
600 Peachtree Street, N.E.
Suite 4100
Atlanta, GA 30308-2216

WARRANTY DEED

STATE OF GEORGIA

COUNTY OF JEFFERSON

THIS INDENTURE, made this 24th day of July, 2002, by and between MRS. ETHEL B. (Mrs. R. H., Jr.) CLARK, of Jefferson County, Georgia, of the First Part (hereinafter called "Grantor"); and THERMO KING CORPORATION, a Delaware corporation, with a place of business in Jefferson County, Georgia, of the Second Part (hereinafter called "Grantee");

W I T N E S S E T H:

That Grantor, for and in consideration of the sum of TEN ($10.00) DOLLARS AND OTHER VALUABLE CONSIDERATIONS, in hand paid, at and before the sealing and delivery of these presents, the receipt of which is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto Grantee, his heirs and assigns, the following described property:

> All that tract or parcel of land lying and being in the 82nd GMD, Jefferson County, Georgia, containing **56.000** acres, and being as appears on plat of survey by Surveying Solutions, Inc., Jeffrey L. Nipper, Georgia Registered Land Surveyor No. 2736, dated June 27, 2002, revised July 2, 2002 and July 3, 2002, and recorded in Plat Book 2, Page 255, Jefferson County Records. Said property fronts to the North on Georgia Highway 24, and is bounded now or formerly as follows: On the East by property of Lizzie Quarterman, property of Tommie Quarterman, and other property of Ethel B. Clark; on the South by other property of

Ethel B. Clark; on the West by other property of Ethel B. Clark and property of Thermo King Corporation; and on the North by Georgia Highway 24. Reference is made to said recorded plat for a fuller and more particular description.

The above-described property is a portion of that 656-acre tract which is described in Warranty Deed from Roger H. Clark, Jr. to Ethel B. Clark, dated October 30, 1964, and recorded in Deed Book 3-Z, Page 519, Jefferson County Records.

TO HAVE AND TO HOLD the said tract or parcel of land, with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of Grantee, its successors and assigns, forever, in Fee Simple.

AND GRANTOR, for her heirs, executors and administrators, will warrant and forever defend the right and title to the above-described property, unto Grantee, its successors and assigns, against the claims of all persons whomsoever.

IN WITNESS WHEREOF, Grantor has hereunto set her hand and seal, the day and year first above written.

Ethel B. Clark (L.S.)
MRS. ETHEL B. (Mrs. R. H., Jr.) CLARK

Signed, sealed and delivered
in the presence of:

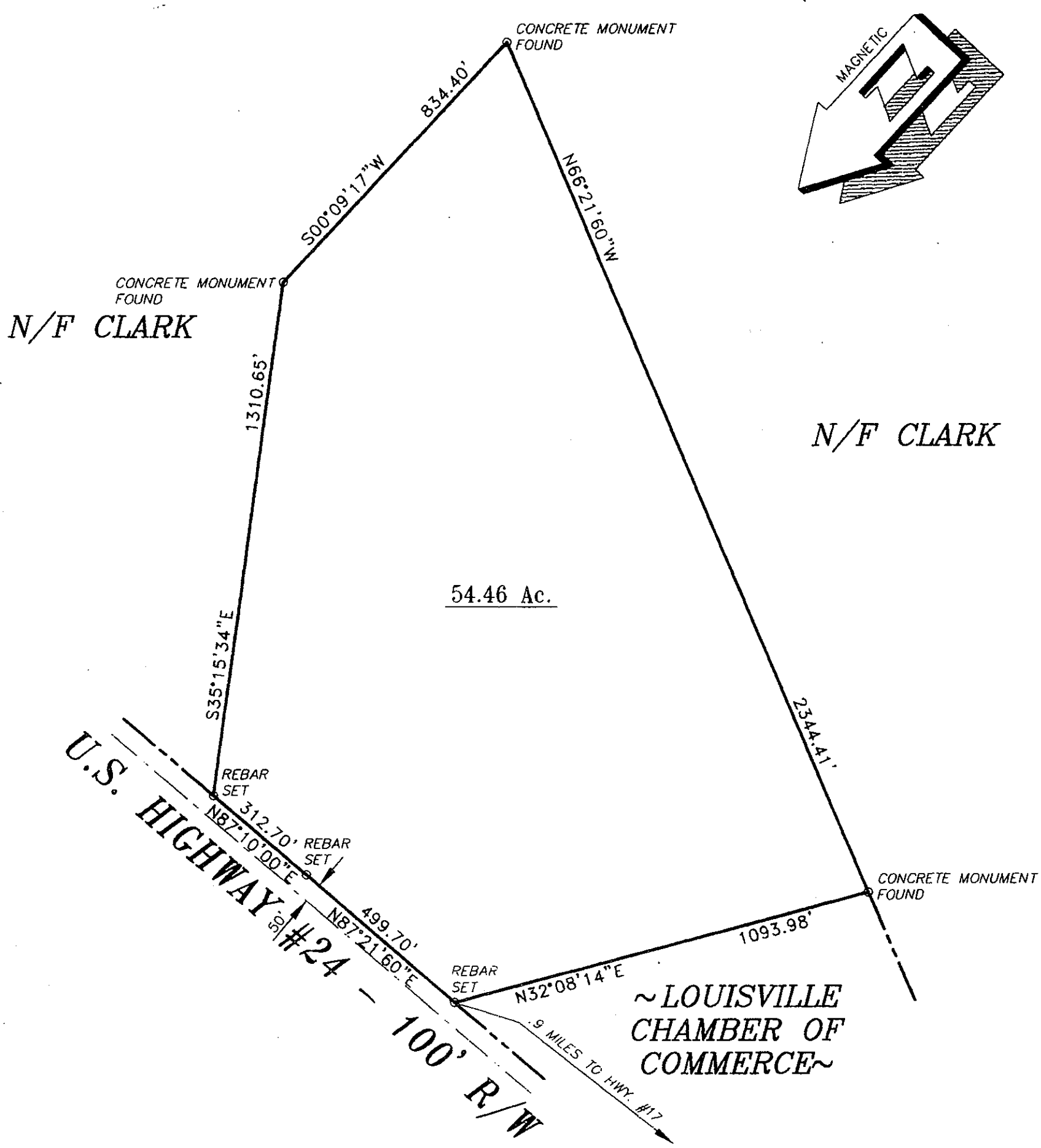
John T. Murphy
Unofficial Witness

Marilyn W. Murphy
Notary Public, State of Georgia
My Commission Expires:

MARILYN W. MURPHY NOTARY PUBLIC JEFFERSON COUNTY, GA. Comm. Exp.

(NOTARIAL SEAL)

Exhibit B
Property Plats



PLAT FOR

THERMO KING FACILITY

308th. G.M.D.

JEFFERSON COUNTY, GEORGIA

SCALE: 1"=300' JULY 26, 2000

300' 150' 0 300' 600'

SCALE IN FEET

TOPCON GTS-3
MAP CLOSURE-1/1,013,138'
OPEN TRAVERSE

THIS PLAT IS SUBJECT TO ALL EASEMENTS, RIGHTS-OF-WAY AND PROTECTIVE COVENANTS OF RECORD.

RECORDING COPY

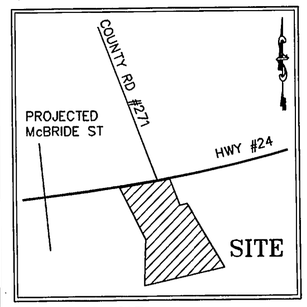
GEORGIA REGISTERED No. 1753 LAND SURVEYOR JOHN A. McGILL 7/27/07

JOHN A. McGILL, R.L.S. #1753
McGILL & ASSOCIATES LAND SURVEYORS
934 SHIELDS POND ROAD
THOMSON, GEORGIA 30824
(706) 595-5612

G.I.D. 00123

AREA

2,439,360 sq.ft.
56.000 acres



VICINITY MAP
N.T.S.

GEORGIA HIGHWAY #24

RIGHT-OF-WAY VARIES

CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD BRG.	CHORD DIST.
C1	462.94	2914.77	N84°19'43"E	462.45
C2	125.48	2914.77	N77°20'43"E	125.47

P.O.B.
N 1092778.4852
E 588719.7566
(NAD 83/94) GA EAST

COUNTY ROAD #271

APPROXIMATE 1.0 MILES TO HWY. #17

N 1092891.4992
E 589859.0736

7'x6' BOX CULVERT

R/W PER REF. #1

R/W PER REF. #2

IPS #4 RB

50.0'

15" RCP

BUILDING

APPROX. DIR.

BLDG.

ASPHALT PAVEMENT

R/W MON 0.6' NORTH OF PROPERTY CORNER

#4 RB 0.18' EAST OF PROPERTY LINE

N/F TOMMIE QUARTEMAN D.B. 206 PG. 154

N/F LIZZIE QUARTEMAN D.B. 206 PG. 151

N/F TOMMIE QUARTEMAN D.B. 298 PG. 158

NAD 83/94 GA. E

LINE TABLE		
LINE	LENGTH	BEARING
L1	414.95	N88°52'43"E
L2	20.00	S10°13'17"E
L3	61.46	N79°10'43"E
L4	20.00	N11°25'17"W
L5	84.33	N76°06'43"E
L6	589.60	S13°50'49"E
L7	100.00'	N76°06'29"E
L8	1777.58'	S42°16'15"E
L9	1870.91'	S84°56'22"W
L10	834.34	N01°24'28"E
L11	1305.05	N34°00'52"W

SWAMP

N/F THERMO KING REFERENCE #1

IPF CMF

N12°32'02"W 7676.41'

TREE LINES (TYP)

P.O.C.
NGS LA-1AZMK
(NAD 83/94) GA EAST
N 1085285.0188
E 590385.6764

N/F ETHEL CLARK D.B. 157 PG. 58

CMF 0.27' EAST OF PROPERTY CORNER (DISTURBED)

GENERAL NOTES

1. INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER, AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS, HIS CONTRACTORS, AND/OR HIS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION SHOWN HEREON AS TO SUCH UNDERGROUND INFORMATION.
2. BASIS OF BEARINGS NAD 84/94 G.A. EAST GRID.
3. THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 10,209 FEET AND AN ANGULAR ERROR OF 06" PER ANGLE POINT AND WAS ADJUSTED USING THE LEAST SQUARE METHOD.
4. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND WAS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 588,234 FEET.
5. EQUIPMENT USED: TOPCON 605 ELECTRONIC TOTAL STATION.
6. FIELD WORK FOR BOUNDARY SURVEY COMPLETED ON OR ABOUT 6/14/02. FIELD WORK FOR TOPOGRAPHIC SURVEY STILL IN PROGRESS AS OF THE DATE SHOWN HEREON.
7. EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS A PART OF THIS SURVEY IS NOTED HEREON. ONLY THE DOCUMENTS NOTED HEREON WERE SUPPLIED BY THE SURVEYOR. NO ABSTRACT OF TITLE, NOR TITLE COMMITMENT, NOR RESULTS OF TITLE SEARCHES WERE FURNISHED TO THE SURVEYOR. THERE MAY BE OTHER DOCUMENTS OF RECORD THAT WOULD AFFECT THIS PARCEL.
8. ELEVATIONS ARE BASED ON M.S.L. (NAVD 88).
9. SOME ASBUILT INFORMATION TAKEN FROM AERIAL PHOTOGRAPHY.
10. PROPERTY WAS UNIMPROVED AT THE TIME OF THIS SURVEY.

LEGEND

IPS	IRON PIN SET	LP	LAMP POLE
IPF	IRON PIN FOUND	-Z-Z-	POWERLINE
R/W	CONC. MONUMENT FOUND	MH	MAN HOLE
SS	SANITARY SEWER	CB	CATCH BASIN
FC	FENCE CORNER	JB	JUNCTION BOX
-X-X-	FENCE	DI	DROP INLET
OT	OPEN TOP PIN	HW	HEAD WALL
CT	CRIMP TOP PIN	CMP	CORRUGATED METAL PIPE
#4 REBAR	REINFORCING BAR	RCP	REINFORCED CONC. PIPE
CL	CENTERLINE	SSE	SEWER EASEMENT
R/W	RIGHT-OF-WAY	DE	DRAINAGE EASEMENT
WL	WATER LINE	FH	FIRE HYDRANT
C/O	CLEAN OUT	WV	WATER VALVE
CH	CHORD BEARING	WM	WATER METER
C	CHORD	GV	GAS VALVE
	POWER POLE	GM	GAS METER
POC	POINT OF COMMENCEMENT	POB	POINT OF BEGINNING

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

REFERENCES

1. SURVEY FOR THERMO KING DATED 1-6-02. SURVEYED BY McGILL & ASSOCIATES LAND SURVEYORS.
2. G.A. DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP. DATED 10-19-85. PROJECT #BRS 0937(6). PAGE 3 OF 3
3. SURVEY FOR LIZZIE W. QUARTERMAN. DATED 11-23-93. SURVEYED BY WILLIAM L. JOHNSON.
4. SURVEY FOR TOMMY QUARTERMAN. DATED 7-23-01. SURVEYED BY STEVE BARGERON & ASSOCIATES.

SURVEYORS CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAT OR MAP IS, TO THE BEST OF MY KNOWLEDGE, A TRUE AND CORRECT REPRESENTATION OF THE LAND PLATTED HEREON, THAT ALL AS-BUILT CONDITIONS ARE CORRECTLY SHOWN AND THAT THIS SURVEY MEETS CURRENT "MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS"

JEFFREY L. NIPPER, GA. PLS NO. 2736 — DATE 7/3/02

SURVEYING SOLUTIONS, INC.
P.O. BOX 329 REX, GEORGIA 30273-0329
TELEPHONE (770) 961-0305 FAX (678) 422-7868
e-mail address: jnipper@surveyingsolutions.com

ALL MATTERS PERTAINING TO TITLE ARE EXCEPTED

© This plat was prepared for the exclusive use of the person, persons, or entity named hereon. This plat does not extend to any unnamed person, persons, or entity without the express recertification of the surveyor naming such person, persons, or entity.

GEORGIA REGISTERED No. 2736 PROFESSIONAL LAND SURVEYOR JEFFREY L. NIPPER

JEFFREY L. NIPPER, GA. PLS #2736
3309 WEATHERED WOOD WAY
REX, GEORGIA 30273
PHONE: (770) 961-0305

REVISION(#)	BY:	DATE:
(1) PER COMMENTS	JN	7/2/02
CORRECTED CMD & ROAD NAME	JN	7/3/02

DATE: 6/27/02
JOB # 02-126
SCALE: 1" = 200'
PLAT BOOK ,PAGE
DEED BOOK ,PAGE

SURVEY PREPARED FOR:

THERMO KING CORPORATION & LAWYERS TITLE INSURANCE CORPORATION

LAND LOT / NA G.M.D. 82 JEFFERSON COUNTY, GEORGIA
LOT N/A BLOCK N/A UNIT N/A SUBDIVISION N/A
SURVEYED: R.F. & C.B. COMPUTED: R.D. APPROVED: J.N.

APPENDIX A

RESPONSE TO COMMENTS and SUPPORTING TABLES and FIGURES TO THE ADDENDUM TO THE VOLUNTARY REMEDIATION PLAN APPLICATION and UPDATED CALCULATIONS FOR RISK REDUCTION STANDARDS

Response to Georgia Environmental Protection Division May 17, 2010 Comments on the March 18, 2010 VRP Application and EPD Correspondence

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Dr. S.E., Suite 1462 East, Atlanta, Georgia 30334
Chris Clark, Commissioner
Environmental Protection Division
F. Allen Barnes, Director
Land Protection Branch
Mark Smith, Branch Chief
404-657-8600

May 17, 2010

COPY

VIA E-MAIL AND REGULAR MAIL

Thermo King Corporation
c/o Mr. David A. Kolb, ESH and Facility Manager
1430 Highway 24 East
Louisville, Georgia 30434

Re: Revision to Voluntary Remediation Plan and Application, March 18, 2010
Thermo King Corporation Site, HSI Site No. 10702
Louisville, Jefferson County, Georgia
Tax Parcel 0090-024

Dear Mr. Kolb:

The Georgia Environmental Protection Division (EPD) has reviewed the March 18, 2010, Revision to Voluntary Remediation Plan (VRP) and Application, which has been submitted in lieu of a corrective action plan (CAP) for the above referenced qualifying property. EPD has noted the following items:

Ecological Risk Assessment Comment

1. Your response to EPD's comment 16 states heavy rip rap will be placed in the gully where Seep C and Manson Branch #2 are located such that seep water flows below the rip rap surface. EPD does not agree that placement of rip rap is an acceptable engineering control that eliminates exposure to contaminated surface water coming from the seeps. Additionally, by allowing the contamination to continue to discharge from the seeps, you are in violation of §12-5-29(a) of the Georgia Water Quality Control Act.

   Other alternatives may include a groundwater/surface water extraction and treatment system, a permeable reactive barrier, etc. This office has been advised extracted groundwater may be treated under your existing pretreatment system. Please also be aware that you may need to apply for a stream buffer variance for such corrective actions.

Risk Reduction Standard (RRS) Comment

2. It appears that default soil/water partition coefficients (Kd) were calculated using a fraction organic carbon in soil (f_{oc}) value of 0.02. Consistent with the EPA, EPD uses a default f_{oc} value of 0.002 (0.2%) as specified in Equation 10 (default parameter definition) of the *United States EPA Soil Screening Guidance: User's Guide (July 1996)*. The f_{oc} value of 0.02 cited in Table 3 of Georgia's Rules for Hazardous Site Response Chapter 391-3-19 (Rules) refers to the derivation of the soil-to-air volatilization factor in the RAGs equation Part B.

   The following table presents approved EPD-calculated Soil Screening Level (SSL) values for each regulated substance released at the site. The values were calculated using a default dilution attention factor (DAF) of 20 and input parameters provided in Tables K-6a and K-6b.

EPD Approved SSL Values					
Site Contaminant	T1/T3 SSL (mg/kg)	T2 SSL (mg/kg)	T4 SSL (mg/kg)	Overall Cs (mg/kg)	Rationale
1,1,1-TCA	1.4E+00	1.9E+01	1.7E+02	1.7E+02	
1,1,2-TCA	3.2E-02	1.6E-02	5.5E-02	5.5E-02	
1,1-DCE	5.0E-02	7.2E-01	6.8E+00	6.8E+00	
1,4-Dioxane	2.1E-02	2.4E-02	8.2E-02	8.2E-02	
cis-1,2-DCE	4.1E-01	9.4E-01	5.9E+00	5.9E+00	
Chloroform	4.4E-01	1.1E-02	3.7E-02	**4.4E-01**	T1/T3>T4
Ethylbenzene	1.6E+01	3.4E-01	1.2E+00	**1.6E+01**	T1/T3>T4
Isopropylbenzene (Cumene)	1.6E-01	6.9E+00	6.2E+01	6.2E+01	
Methylene chloride	2.5E-02	2.8E-01	9.2E-01	9.2E-01	
Naphthalene	1.3E+00	9.2E-02	3.2E-01	**1.3E+00**	T1/T3>T4
PCE	4.5E-02	1.2E-02	4.0E-02	**4.5E-02**	T1/T3>T4
Toluene	1.4E+01	1.2E+01	8.8E+01	8.8E+01	
TCE	1.8E+00	1.8E+00	1.8E+00	**1.8E+00**	EPD approved 01/19/2007
Xylene	2.0E+02	1.2E+00	1.1E+01	**2.0E+02**	T1/T3>T4

Please note Tables K3 and K4 must be revised to include these values.

Schedule

3. Your proposal to submit a copy of the proposed Uniform Environmental Covenant for the qualifying property and list of names/contact information for adjoining properties with tax parcel ID numbers with the completed VRP and Application is acceptable.
4. Your proposal to submit a copy of a current title report for the qualifying property with the completed VRP and Application is acceptable.
5. EPD requests the submittal of a financial assurance instrument for the amount of $400,112 by no later than June 28, 2010. Model financial assurance instruments can be located at http://www.gaepd.org/Files_PDF/forms/hwb/HSIModel.pdf.

EPD hereby provisionally accepts Thermo King into the Voluntary Remediation Program pursuant to the January 29, 2010 VRP and Application. If you have any questions, please contact Kristen Ritter Rivera of the Response and Remediation Program at (404) 657-8600.

Sincerely,

Mark Smith

Mark Smith, Chief
Land Protection Branch

c: David Sordi, Ingersoll Rand
Rhonda N. Quinn, MACTEC

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RESPONSE TO GEORGIA ENVIRONMENTAL PROTECTION DIVISION MAY 17, 2010 COMMENTS ON THE MARCH 18, 2010 VOLUNTARY REMEDIATION PLAN AND APPLICATION FOR THERMO KING – LOUISVILLE, JEFFERSON COUNTY, GEORGIA SITE (HSI 10702)

Ecological Risk Assessment

1. *Your response to EPD's comment 16 states heavy rip rap will be placed in the gully where Seep C and Manson Branch #2 are located such that seep water flows below the rip rap surface. EPD does not agree that placement of rip rap is an acceptable engineering control that eliminates exposure to contaminated surface water coming from the seeps. Additionally, by allowing the contamination to continue to discharge from the seeps, you are in violation of §12-5-29(a) of the Georgia Water Quality Control Act. Other alternatives may include a groundwater/surface water extraction and treatment system, a permeable reactive barrier, etc. This office has been advised extracted groundwater may be treated under your existing pretreatment system. Please also be aware that you may need to apply for a stream buffer variance for such corrective actions.*

Response to Comment 1:
Representatives with Thermo King and MACTEC met with EPD on September 23, 2010 to discuss the rationale for the proposed rip-rap remedy, and to present additional details and sketches of the proposed rip-rap remedy, along with photographs of the seeps and of Manson Branch to help describe the rip-rap remedy and how it will operate. In the meeting, EPD requested the installation of three shallow monitoring wells between the seeps and Manson Branch to investigate the groundwater quality and flow conditions near the stream and modeling of the Uppermost Water-Bearing Zone to evaluate if the VOC concentrations in the Uppermost Zone would impact the surface water in Manson Branch above in-stream water quality criteria (ISWQC). In a letter dated October 15, 2010, EPD stated that they would evaluate the acceptability of the proposed placement of rip-rap based on the completed voluntary remediation program application and investigation and remediation plan submitted by Thermo King. If the conceptual site model confirms the pathways or the absence of exposure as discussed in the meeting, EPD anticipates the placement of rip-rap will be an appropriate corrective action to address the seeps. Appendix D of the December 2010 Application provides the results of a model of the Uppermost Water-Bearing Zone and indicates that water quality in Manson Branch will not be impacted above Georgia ISWQC.

Risk Reduction Standard (RRS)

2. *It appears that default soil/water partition coefficients (Kd) were calculated using a fraction organic carbon in soil (f_{oc}) value of 0.02. Consistent with the EPA, EPD uses a default f_{oc} value of 0.002 (0.2%) as specified in Equation 10 (default parameter definition) of the United States EPA Soil Screening Guidance: User's Guide (July 1996). The f_{oc} value of 0.02 cited in Table 3 of Georgia's Rules for Hazardous Site Response Chapter 391-3-19 (Rules) refers to the derivation of the soil-to-air volatilization factor in the RAGS equation Part B.*

   The following table presents approved EPD-calculated Soil Screening Level (SSL) values for each regulated substance released at the site. The values were calculated using a default dilution attention factor (DAF) of 20 and input parameters provided in Tables K-6a and K-6b.

EPD Approved SSL Values					
Site Containment	***T1/T3 SSL (mg/kg)***	***T2 SSL (mg/kg)***	***T4 SSL (mg/kg)***	***Overall Cs (mg/kg)***	***Rationale***
1,1,1-TCA	*1.4E+00*	*1.9E+01*	*1.7E+02*	*1.7E+02*	
1,1,2-TCA	*3.2E-02*	*1.6E-02*	*5.5E-02*	*5.5E-02*	
1,1-DCE	*5.0E-02*	*7.2E-01*	*6.8E+00*	*6.8E+00*	
1,4-Dioxane	*2.1E-02*	*2.4E-02*	*8.2E-02*	*8.2E-02*	
Cis-1,2-DCE	*4.1E-01*	*9.4E-01*	*5.9E+00*	*5.9E+00*	
Chloroform	*4.4E-01*	*1.1E-02*	*3.7E-02*	***4.4E-01***	*T1/T3>T4*
Ethylbenzene	*1.6E+01*	*3.4E-01*	*1.2E+00*	***1.6E+01***	*T1/T3>T4*
Isopropylbenzene (Cumene)	*1.6E-01*	*6.9E+00*	*6.2E+01*	*6.2E+01*	
Methylene chloride	*2.5E-02*	*2.8E-01*	*9.2E-01*	*9.2E-01*	
Naphthalene	*1.3E+00*	*9.2E-02*	*3.2E-01*	***1.3E+00***	*T1/T3>T4*
PCE	*4.5E-02*	*1.2E-02*	*4.0E-02*	***4.5E-02***	*T1/T3>T4*
Toluene	*1.4E+01*	*1.2E+01*	*8.8E+01*	*8.8E+01*	
TCE	*1.8E+00*	*1.8E+00*	*1.8E+00*	***1.8E+00***	*EPD approved 01/19/07*
Xylene	*2.0E+02*	*1.2E+00*	*1.1E+01*	***2.0E+02***	*T1/T3>T4*

Response to Comment 2:
The foc value has been revised to 0.002. Except for the SSLs listed by EPD for 1,4-dioxane, the revised SSLs (i.e., soil to groundwater leaching values) are in agreement with those provided by EPD in their comment. The toxicity values for 1,4-dioxane were updated in IRIS on August 11, 2010. As a result, the groundwater RRS changed causing the calculated SSLs to be lower than those provided by EPD. The supporting documentation for the SSL calculations are provided in the Addendum to the VRP Application (Appendix A). The revised RRS are presented on Tables 6.0, 6.1, VRP-2 and VRP-3 and on the RRS calculations at the end of Appendix A.

MACTEC
engineering and constructing a better tomorrow

August 4, 2010

Mr. Mark Smith
Chief, Land Protection Branch
Georgia Environmental Protection Division
2 Martin Luther King, Jr. Drive, SE
Suite 1462 East Floyd Tower
Atlanta, Georgia 30334

Subject: **Status Report for VRP Application**
Thermo King Corporation - Louisville, Jefferson County, Georgia
HSI Site No. 10702 Tax Parcel 0090-024
MACTEC Project 6122-09-0322

Dear Mr. Smith:

On behalf of Thermo King Corporation, MACTEC Engineering and Consulting, Inc. (MACTEC) is providing this status report of activities conducted for the completion of the Voluntary Remediation Program (VRP) Application for the Thermo King Corporation site in Louisville, Georgia. This status report summarizes the activities completed as of July 30, 2010, documents a June 4, 2010 telephone conversation regarding EPD's comments on the remediation plan, and presents an updated schedule for submittal of the completed VRP Application.

Summary of Activities for VRP Application

The following activities have been conducted toward the completion of the VRP Application:

- The initial VRP Application was submitted on January 29, 2010.
- A revised VRP Application was submitted on March 19, 2010 in response to EPD's comment letter of February 18, 2010.
- Water samples were collected from the hillside seeps to the west of Manson Branch and from the surface water in Manson Branch on April 20-22, 2010 and analyzed for site-specific volatile organic compounds (VOCs).
- Intermediate water-bearing zone monitoring well MW-25 was installed on June 4, 2010.

FEDEX TRACK # 7340 8865 3175

MACTEC Engineering and Consulting, Inc.
3200 Town Point Drive, Suite 100 • Kennesaw, GA 30144 • Phone: 770.421.3400 • Fax: 770.421.3486
www.mactec.com

- Groundwater samples were collected from the 24 site monitoring wells on June 1-4, 2010. Six monitoring wells (MW-3, MW-5, MW-10, MW-14, MW-19, and MW-20) with previous and consistent detections of VOCs were sampled using both passive diffusion bag samplers (PDBs) and low flow/low stress purging and sampling techniques. These six wells were analyzed for site-specific VOCs using USEPA method 8260B and for 1,4-dioxane using Selective Ion Monitoring to obtain lower quantitation limits. The 18 monitoring wells that have not had detections of VOCs were sampled using PDBs for site-specific VOCs using USEPA method 8260B.
- In-situ hydraulic conductivity tests were conducted in five intermediate water-bearing zone monitoring wells (MW-17, MW-20, MW-22, MW-23, and MW-25).
- New monitoring well MW-25 was purged and sampled on June 24, 2010 using low flow/low stress purging and sampling techniques and was analyzed for site-specific VOCs using USEPA method 8260B and for 1,4-dioxane using Selective Ion Monitoring.
- A draft Uniform Environmental Covenant has been prepared and is under legal review.
- A current title report is in the process of being prepared.
- Contact information for adjacent property owners is being collected.
- The groundwater and surface water usage map is being prepared.

June 4, 2010 Telephone Conversation with EPD Regarding the May 17, 2010 Letter

In a telephone conversation on June 4, 2010, MACTEC's Mr. Larry Neal and EPD's Ms. Kristen Ritter Rivera discussed EPD's May 17, 2010 letter. The discussion focused on EPD's concerns with the proposed seep rip-rap remedy. Mr. Neal explained that the function and design of the rip-rap cover was to physically cover the seeps to keep them in the subsurface (i.e., not "surface water") while the open voids in the rip-rap covering would still allow ventilation for natural gas transfer of VOCs from the underlying water. EPD agreed that as long as the rip rap remedy prevented discharge to surface water at concentrations exceeding in-stream water quality criteria, this remedy would be acceptable. It was also clarified that the EPD letter did not constitute a notice of a violation. EPD also agreed that the financial assurance instrument could be submitted when EPD accepts the voluntary remediation plan.

Updated Schedule for Submittal of the Completed VRP Application

As described above, Thermo King has been working to collect the necessary data to complete the VRP Application. Before the VRP application can be completed, additional investigation will be needed to evaluate the impact of the proposed rip-rap cover remedy on potential wetlands located in the remediation area that borders the west side of Manson Branch. Based on this delineation, the design of the rip-rap cover may need to be modified. Because of the additional investigation and modifications to the remediation plan, Thermo King expects that the submittal date of the completed VRP will be on or before December 2010.

Please contact the undersigned if any questions arise.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Rhonda N. Quinn, P.G.
Senior Geologist
Georgia Professional Geologist # 1031

A. David Alcott, P.E.
Senior Principal Engineer

For A. David Alcott
with permission

Gregory J. Wrenn, P.E.
Senior Remediation Engineer/Project Manager
Georgia Professional Engineer # 025565

cc: David Kolb – Thermo King Corporation – Louisville, GA
Dave Sordi – Ingersoll Rand Company

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Dr. S.E., Suite 1462 East, Atlanta, Georgia 30334
Chris Clark, Commissioner
Environmental Protection Division
F. Allen Barnes, Director
Land Protection Branch
Mark Smith, Branch Chief
404-657-8600

August 31, 2010

COPY

VIA E-MAIL AND REGULAR MAIL

Thermo King Corporation
c/o Mr. David A. Kolb, ESH and Facility Manager
1430 Highway 24 East
Louisville, Georgia 30434

Re: Status Report for VRP Application, August 4, 2010
Thermo King Corporation Site, HSI Site No. 10702
Louisville, Jefferson County, Georgia
Tax Parcel 0090-024

Dear Mr. Kolb:

The Georgia Environmental Protection Division (EPD) has reviewed the August 4, 2010 Status Report for VRP Application. EPD did not request the submittal of this status report, nor does the report meet the requirements of a status report. EPD emphasizes the use of rip-rap is not an acceptable remedy for the contaminated seep water. Please see Comment 1 of EPD's letter dated May 17, 2010. In summary, Thermo King needs to meet the requirements of the Voluntary Remediation Program Act.

EPD anticipates receipt of all the items listed in its letter dated February 18, 2010 by no later than December 31, 2010. If you have any questions, please contact Kristen Ritter Rivera of my staff at (404) 657-8600.

Sincerely,

David Reuland
Response and Remediation Program

c: David Sordi, Ingersoll Rand
Rhonda N. Quinn, MACTEC

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MEETING SUMMARY

A meeting at the Environmental Protection Division (EPD) office to discuss the Voluntary Remediation Program (VRP) Application for the Thermo King Louisville, Georgia site commenced at 2:30 pm Thursday, September 23, 2010. Attending were the following individuals:

Alexandra Cleary	EPD
David Reuland	EPD
Kristen Ritter-Rivera	EPD
Dominic Weatherill	EPD
David Kolb	Thermo King
Greg Wrenn	MACTEC
Rhonda Quinn	MACTEC

The following summarizes the meeting:

- Mr. Wrenn presented a slide presentation (attached) briefly summarizing site background information, key points regarding the rationale for the proposed rip-rap remedy, additional details and sketches of the proposed rip-rap remedy, and photographs of seeps and Manson Branch.
- Discussion during and after the presentation centered around whether the seeps were waters of the State and subject to in-stream water quality standards, the acceptability of covering the seeps to prevent surface expression of groundwater, and whether the data from the seeps was adequate to demonstrate that contaminated groundwater was not discharging to Manson Branch, which all agreed was a regulated water of the State.
- After the slide presentation, EPD indicated that the proposed installation of rip-rap over the impacted seeps appeared to be acceptable. EPD also expressed concern regarding the new detections of TCE in Seep H in 2010 and the lack of groundwater monitoring points down-gradient of the impacted seeps and Manson Branch. EPD suggested that contaminant fate-and-transport modeling of the uppermost water bearing unit to help predict the potential future magnitude and duration of impacts to Manson Branch, in conjunction with additional groundwater sampling points and/or pore-water sampling beneath the sediments in Manson Branch, would provide useful data to evaluate the potential that contaminated groundwater exceeding in-stream water quality criteria was passing beneath the seeps and discharging to Manson Branch (or would in the future).
- It was pointed out that continued sampling of Manson Branch was planned to verify continued compliance with in-stream standards, but MACTEC and Thermo King agreed that fate-and-transport modeling of the uppermost water bearing unit would be included in the updated VRP Application and agreed to install additional groundwater monitoring points between the impacted seeps and Manson Branch. These monitoring points would be incorporated into the long-term monitoring plan in the VRP Application.
- The meeting adjourned at approximately 3:45 pm.

THERMO KING

Louisville, Georgia

September 23, 2010

Voluntary Remediation Program Application Status Meeting

MACTEC Engineering and Consulting, Inc.

MACTEC

Discussion Topics

- VRP Application and Voluntary Remediation Plan submitted March 18, 2010
- EPD Comment Letters of May 17, 2010 and August 31, 2010
- Additional Details of Proposed Remedy
  - Conceptual Model
  - Photographs of Seeps and Surface Water
- Path Forward for Completion of VRP Application

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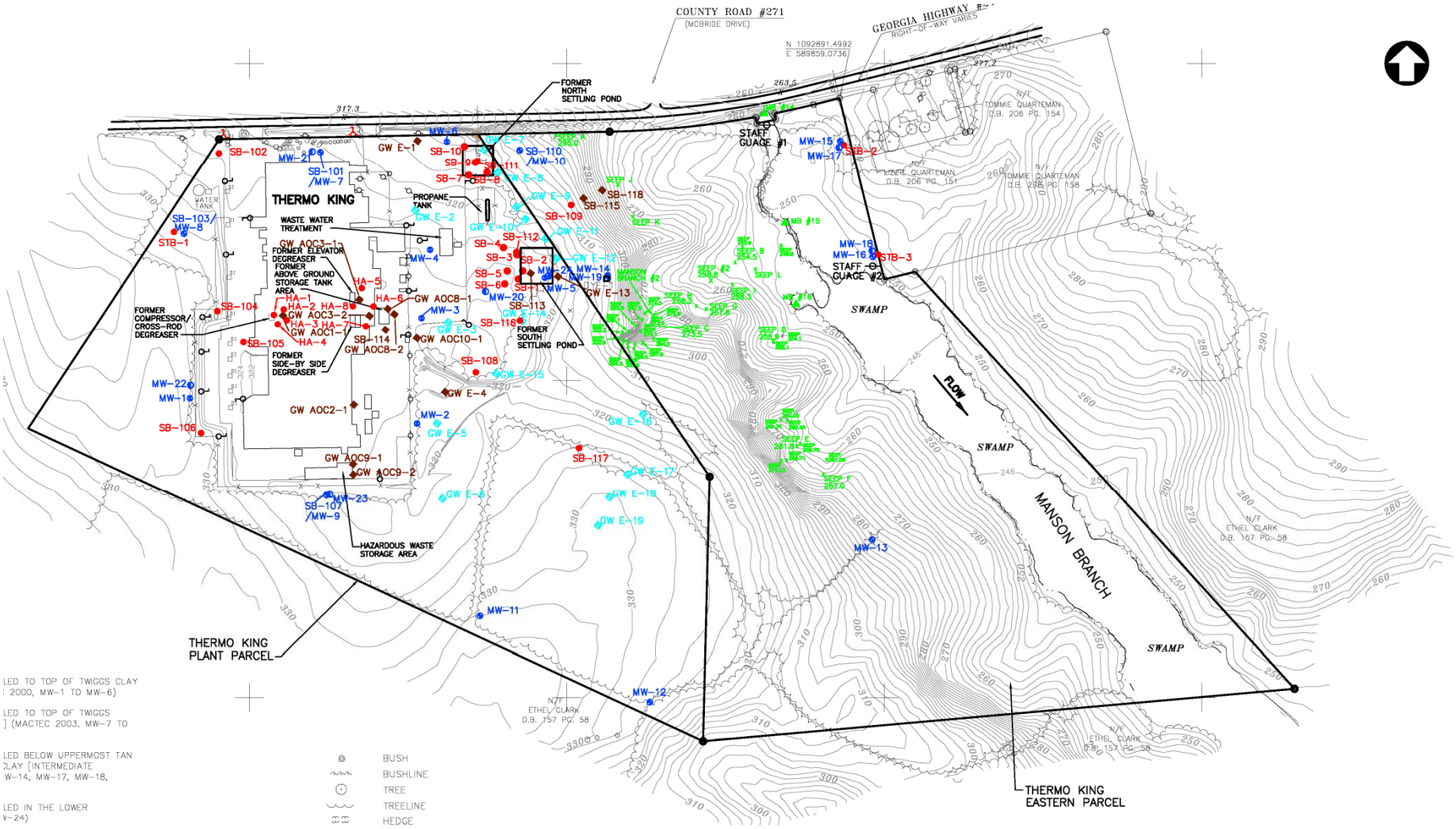
Aerial Photograph

MACTEC

Site Layout and Sampling Locations



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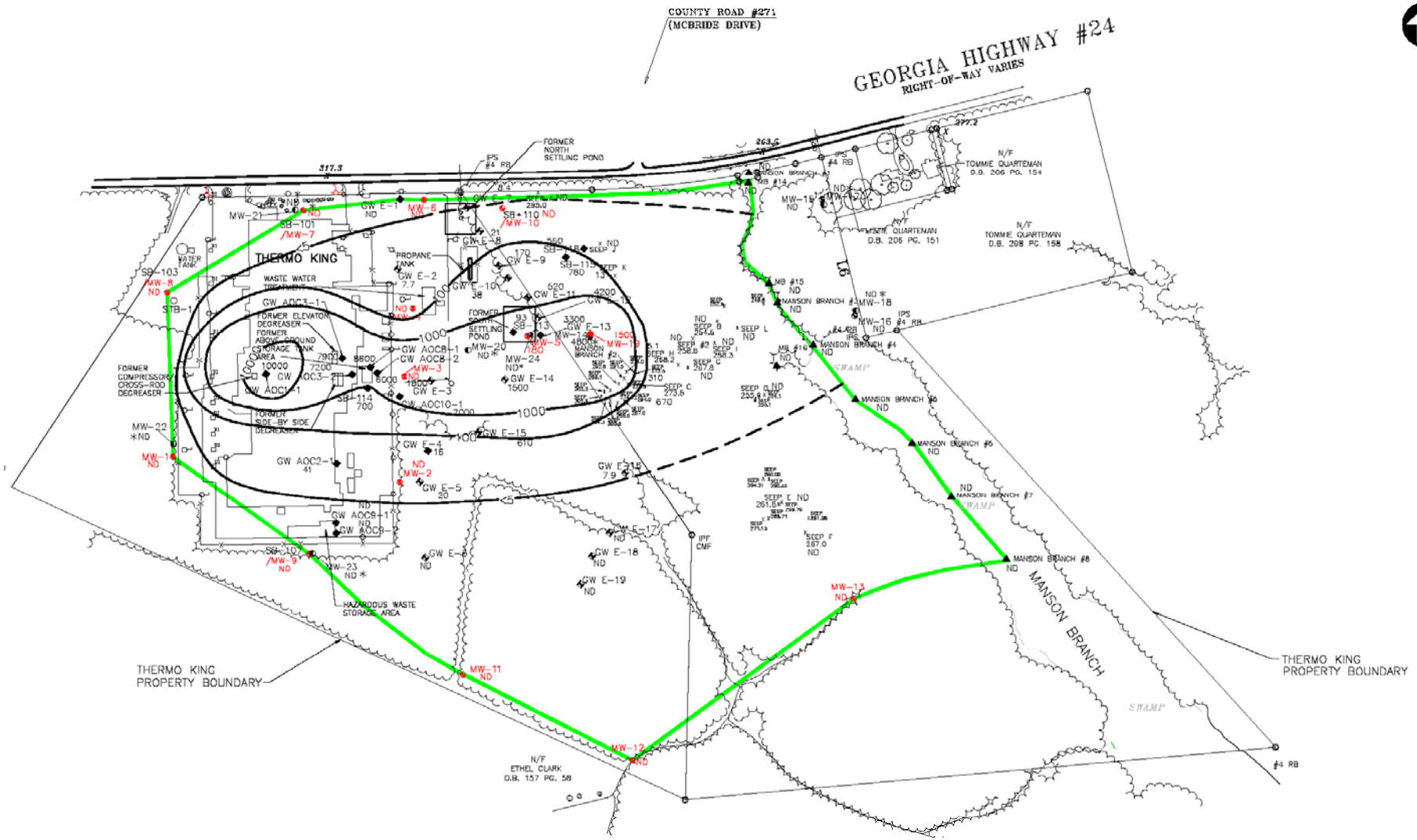
TCE in Groundwater – Uppermost WBU



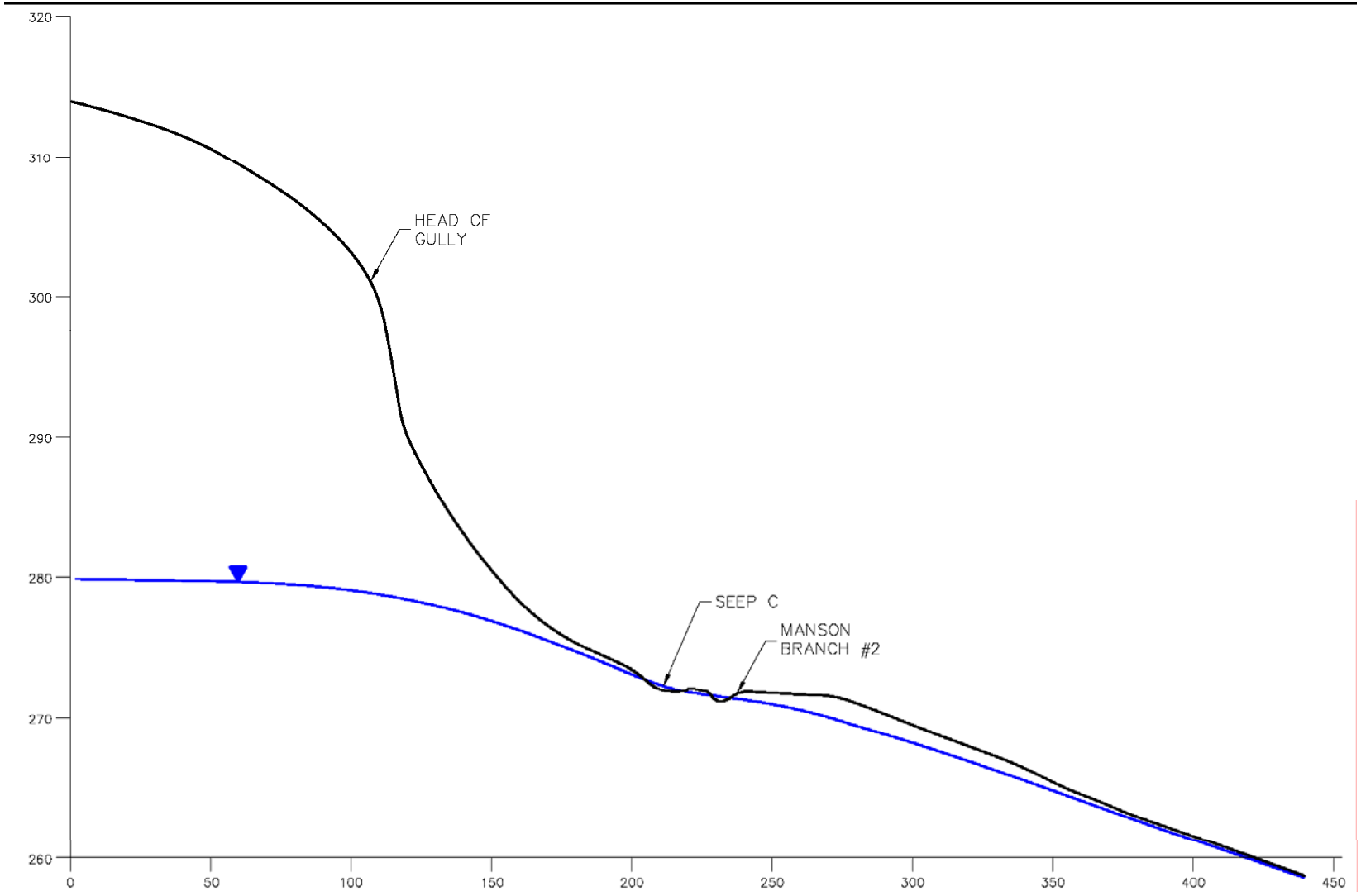
MACTEC

Key Points

- Numerous isolated seeps where groundwater is exposed then infiltrates back into the ground are present along the slope above Manson Branch
- Seeps are discontinuous with Manson Branch and flow intermittently
- Seeps MB#2, C, and H currently exhibit TCE concentrations above GA In-stream Criteria (30 ug/L)
- SLERA indicates acceptable risk to ecological receptors
- Placement of rip-rap over seeps would control erosion and surface expression of groundwater
- Seeps #2, B, C, I & G and Manson Branch are proposed as monitoring points

MACTEC

Cross-Section View



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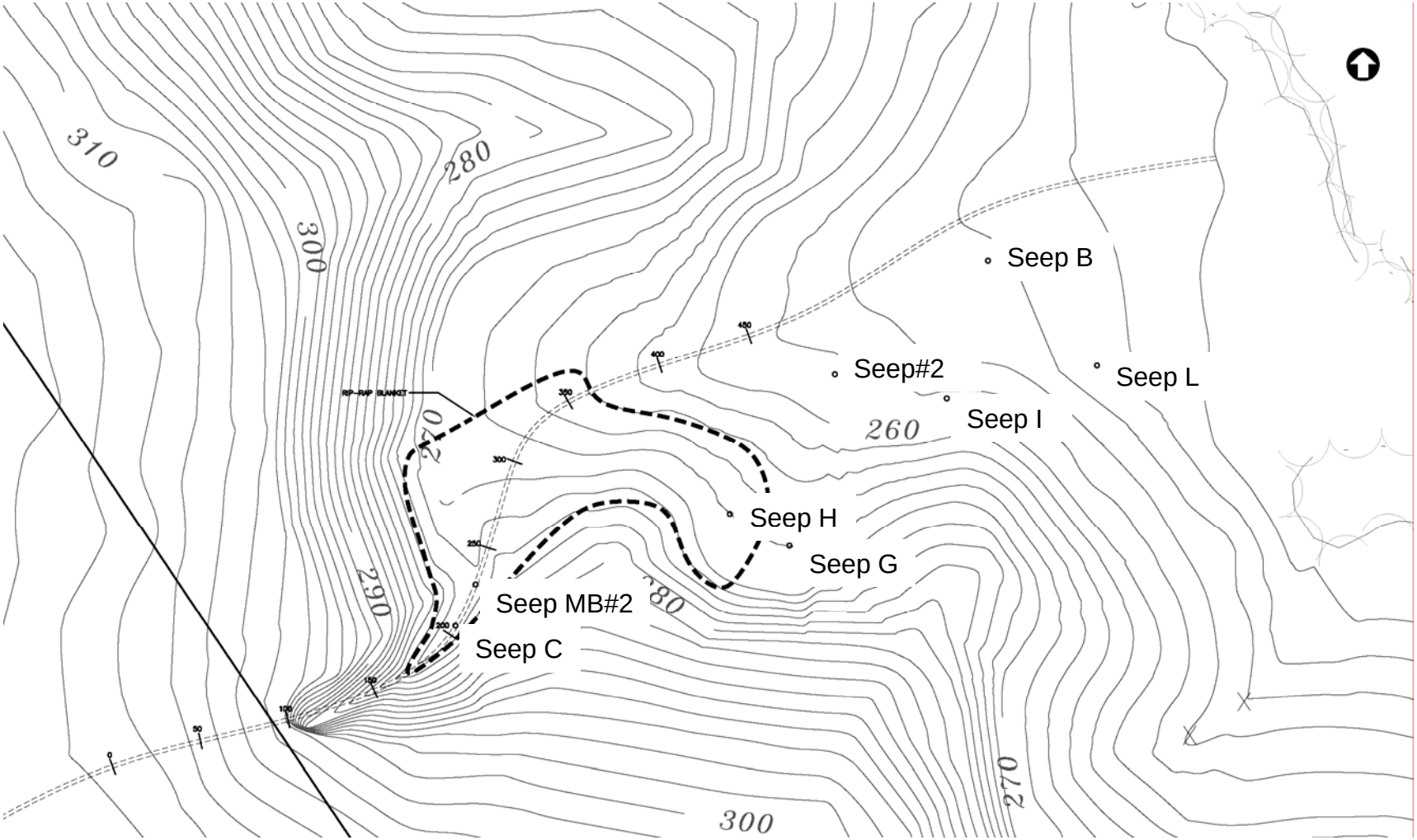
Proposed Extent of Rip-Rap Blanket



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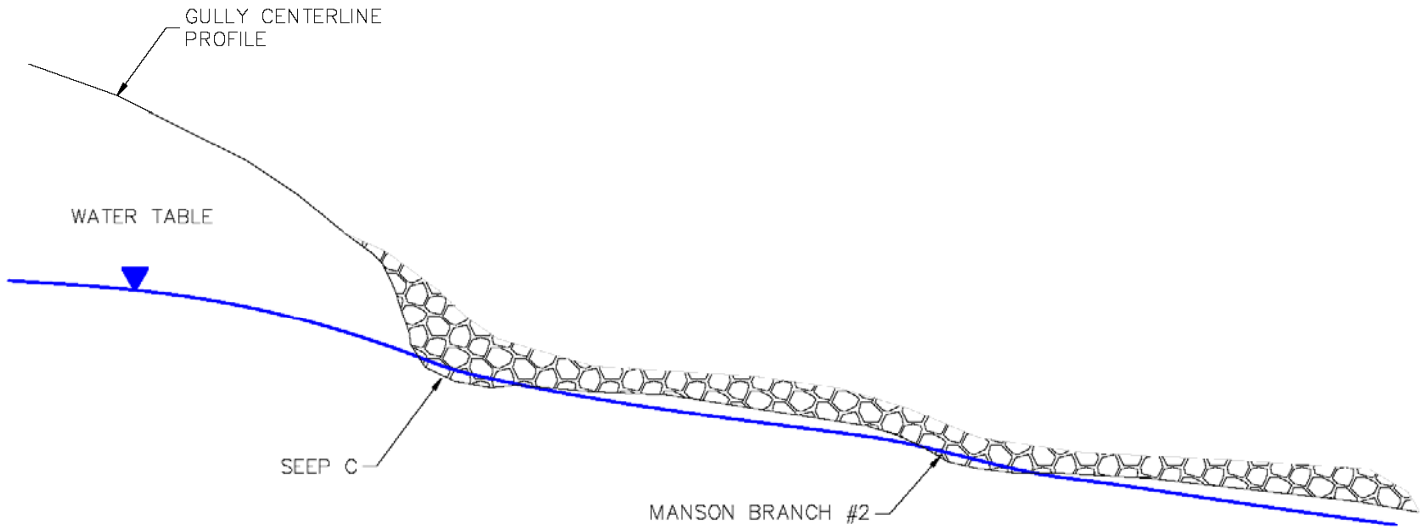
Profile Through Seep C & MB #2



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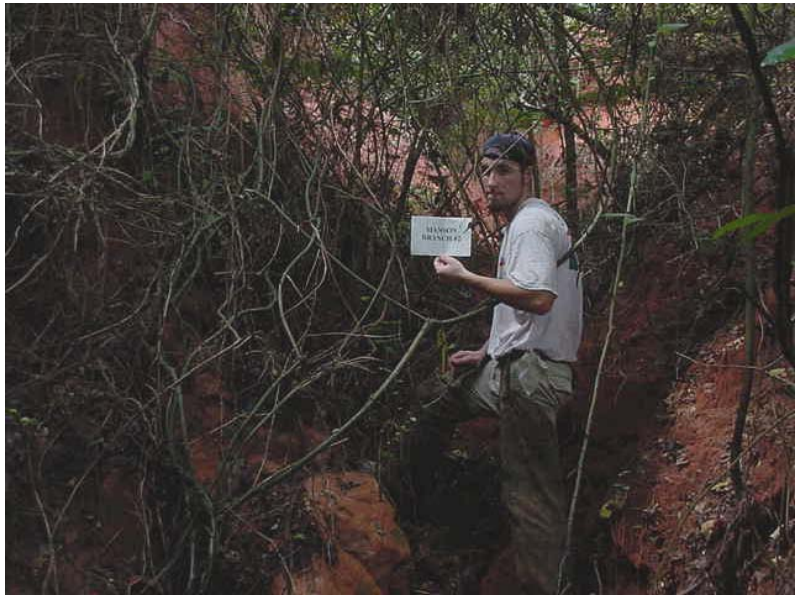
Seep MB #2 and Seep C



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Seep G and Seep H

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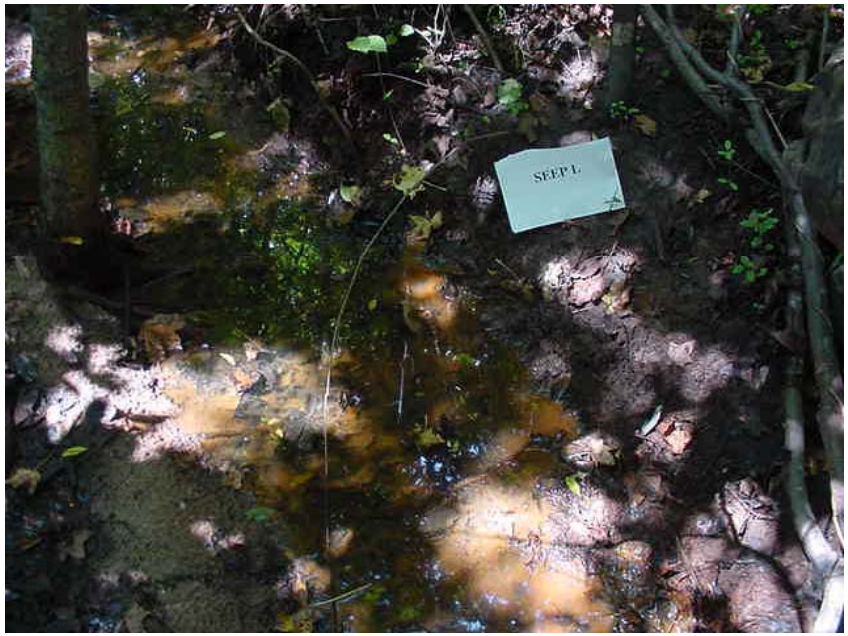
Seep B, Seep L, and Seep I



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Seep D, Seep J, and Seep K

MACTEC

Manson Branch

MACTEC

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Dr. S.E., Suite 1462 East, Atlanta, Georgia 30334
Chris Clark, Commissioner
Environmental Protection Division
F. Allen Barnes, Director
Land Protection Branch
Mark Smith, Branch Chief
404-657-8600

October 15, 2010

VIA E-MAIL AND REGULAR MAIL

COPY

Thermo King Corporation
c/o Mr. David A. Kolb, ESH and Facility Manager
1430 Highway 24 East
Louisville, Georgia 30434

Re: September 23, 2010 Meeting Summary and Proposed Well Locations
Thermo King Corporation Site, HSI Site No. 10702
Louisville, Jefferson County, Georgia
Tax Parcel 0090-024

Dear Mr. Kolb:

The Georgia Environmental Protection Division (EPD) has reviewed the September 23, 2010 Meeting Summary and Proposed Well Locations submitted by MACTEC via email on September 29, 2010. The well locations are acceptable. However, it is your responsibility based on the counsel of your environmental professional to obtain sufficient data to support and augment the site-specific conceptual site model (CSM). Based on the results, your environmental professional may recommend the installation of additional wells.

EPD will evaluate the acceptability of the proposed placement of rip-rap based on the completed voluntary remediation application and investigation and remediation plan scheduled for submittal by no later than December 31, 2010. If the revised CSM confirms the pathways as presented in the meeting, EPD anticipates the placement of rip-rap will be an appropriate corrective action to address the seeps.

If you have any questions, please contact Kristen Ritter Rivera of my staff at (404) 657-8600.

Sincerely,

Alexandra Y Cleary

Alexandra Y. Cleary
Program Manager
Response and Remediation Program

c: David Sordi, Ingersoll Rand
Rhonda N. Quinn, MACTEC
Greg Wrenn, MACTEC

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TABLES

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-1	SB-1	Soil	10-11	02/03/00	30.0	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-2	SB-2	Soil	1.5-3.5	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-3	SB-3	Soil	5-6	02/03/00	0.0	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-4	SB-4	Soil	8-9	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-5	SB-5	Soil	8-9	02/03/00	84.0	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-6	SB-6	Soil	0-10	02/03/00	NA	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-7	SB-7	Soil	7-8	02/03/00	54.0	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-8	SB-8	Soil	7-8	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-9	SB-9	Soil	8-9	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
SB-10	SB-10	Soil	5-6	02/03/00	NM	NA	NA	NA	NA	VOCs	Rotosonic soil coring
GW-E-1	SO-E-1	Soil	0-4	09/25/00	0	NA	NA	NA	NA	VOCs	SO-E-1 (0-2 ft) DPT
	SO-E-1	Soil	4-8	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	8-12	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	12-16	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	16-20	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	20-24	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	24-28	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	28-32	09/25/00	0	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	32-36	09/25/00	4	NA	NA	NA	NA	VOCs	Wet Soil at 34Ft, SO-E-1 (32-34) DPT
	SO-E-1	Soil	36-40	09/25/00	5	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	40-44	09/25/00	12	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	44-48	09/25/00	4	NA	NA	NA	NA	None	DPT
	SO-E-1	Soil	48-52	09/25/00	0	NA	NA	NA	NA	None	DPT
	GW-E-1	Groundwater	34	09/25/00	NA	6.36	0.260	20.6	5.5	VOCs	GW-E-1 (34) DPT
	GW-E-1	Groundwater	48	09/25/00	NA	NM	NM	NM	NM	VOCs	GW-E-1 (48) DPT, Boring terminated 55 ft
GW-E-2	GW-E-2	Soil	55	09/26/00	1	NA	NA	NA	NA	None	DPT, Boring terminated 56 ft
	GW-E-2	Groundwater	55	09/26/00	NA	6.36	0.172	25.1	67.5	VOCs	GW-E-2 (55) DPT
GW-E-3	GW-E-3	Soil	0-4	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	4-8	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	8-12	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	12-16	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	16-20	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	20-24	09/29/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	24-28	09/30/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	28-32	09/28/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	32-36	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	36-40	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	40-44	09/28/00	NM	NA	NA	NA	NA	None	DPT, Wet soil at 44 ft.
	GW-E-3	Soil	44-48	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	48-52	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	52-56	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Soil	56-60	09/28/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-3	Groundwater	44-48	10/02/00	NA	6.43	0.439	31.8	72	VOCs	GW-E-3 (44-48) DPT
	GW-E-3	Groundwater	52-56	10/02/00	NA	7.07	0.369	29.9	999	VOCs	GW-E-3 (52-55) DPT
	GW-E-3	Groundwater	56-60	10/02/00	NA	7.07	0.285	28.2	118	VOCs	GW-E-3 (56-60) DPT, Boring terminated 60 ft
GW-E-4	SO-E-4	Soil	0-4	09/27/00	3	NA	NA	NA	NA	VOCs	SO-E-4 (0-2) DPT
	SO-E-4	Soil	4-8	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	8-12	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	12-16	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	16-20	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	20-24	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	24-28	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	28-32	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	32-36	09/27/00	0	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	36-40	09/27/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	40-44	09/27/00	NM	NA	NA	NA	NA	VOCs	SO-E-4 (40-42) DPT
	SO-E-4	Soil	44-48	09/27/00	NM	NA	NA	NA	NA	None	Wet Soil at 44Ft. DPT
	SO-E-4	Soil	48-52	09/27/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	52-56	09/27/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-4	Soil	56-61	09/27/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-4	Groundwater	44-48	09/27/00	NA	4.51	0.076	17.5	989	VOCs	GW-E-4 (44-48) DPT
	GW-E-4	Groundwater	48-52	09/27/00	NA	4.67	0.085	17.9	999	VOCs	GW-E-4 (48-52) DPT
	GW-E-4	Groundwater	60-61	09/27/00	NA	6.54	0.219	21.6	32	VOCs	GW-E-4 (60-61) DPT, Boring terminated 61 ft
GW-E-5	GW-E-5	Soil	0-4	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	4-8	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	8-12	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	12-16	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	16-20	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	20-24	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	24-28	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	28-32	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	32-36	09/27/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	36-40	09/28/00	0	NA	NA	NA	NA	None	DPT
	GW-E-5	Soil	40-44	09/27/00	NM	NA	NA	NA	NA	None	Wet Soil at 42 Ft. DPT
	GW-E-5	Soil	44-48	09/27/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-5	Groundwater	40-44	09/28/00	NA	5.00	0.089	17.5	100	VOCs	GW-E-5 (40-44) DPT
	GW-E-5	Groundwater	44-48	09/28/00	NA	4.58	0.063	19.1	98	VOCs	GW-E-5 (44-48) DPT
	GW-E-5	Groundwater	54-58	10/10/00	NA	4.86	0.136	13.6	752	VOCs	GW-E-5 (54-58) DPT, Boring terminated 58 ft
GW-E-6	GW-E-6	Soil	0-6	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	6-10	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	10-15	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	15-20	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	20-22	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	22-24	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	24-26	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	26-40	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	40-44	10/03/00	NM	NA	NA	NA	NA	None	Wet Soil at 40 Ft. DPT
	GW-E-6	Soil	44-48	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	48-52	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	52-56	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	56-60	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Soil	60-64	10/03/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-6	Groundwater	40-44	10/03/00	NA	6.86	0.476	27.8	999	VOCs	GW-E-6 (40-44) DPT
	GW-E-6	Groundwater	52-56	10/03/00	NA	5.84	0.097	26.4	23.4	VOCs	GW-E-6 (52-56) DPT
	GW-E-6	Groundwater	56-60	10/03/00	NA	6.77	0.386	16.6	115	VOCs	GW-E-6 (56-60) DPT, Boring terminated 64 ft
GW-E-7	GW-E-7	Groundwater	31-35	10/03/00	NA	6.57	0.490	18.9	368	VOCs	GW-E-7 (31-35) DPT
	GW-E-7	Groundwater	35-39	10/03/00	NA	6.13	0.220	19.5	750	VOCs	GW-E-7 (35-39) DPT
	GW-E-7	Groundwater	48-52	10/03/00	NA	6.90	0.223	19.3	102	VOCs	GW-E-7 (48-52) DPT, Boring terminated 56 ft
GW-E-8	GW-E-8	Groundwater	40-44	10/04/00	NA	5.30	0.109	23.4	650	VOCs	GW-E-8 (40-44) DPT
	GW-E-8	Groundwater	44-48	10/04/00	NA	5.77	0.132	25.4	243	VOCs	GW-E-8 (44-48) DPT
	GW-E-8	Groundwater	50-54	10/04/00	NA	6.92	0.313	27.6	107	VOCs	GW-E-8 (50-54) DPT, Boring terminated 54 ft
GW-E-9	GW-E-9	Groundwater	38-42	10/04/00	NA	6.42	0.283	31.7	107	VOCs	GW-E-9 (38-42) DPT
	GW-E-9	Groundwater	44-48	10/04/00	NA	5.45	0.112	31.5	1140	VOCs	GW-E-9 (44-48) DPT
	GW-E-9	Groundwater	50-54	10/04/00	NA	6.90	0.283	29.0	500	VOCs	GW-E-9 (50-54) DPT, Boring terminated 54 ft
GW-E-10	GW-E-10	Groundwater	44-48	10/04/00	NA	5.27	0.143	26.0	999	VOCs	GW-E-10 (44-48) DPT
	GW-E-10	Groundwater	48-52	10/04/00	NA	5.85	0.144	25.4	80	VOCs	GW-E-10 (48-52) DPT, Boring terminated 53 ft
GW-E-11	GW-E-11	Groundwater	44-48	10/05/00	NA	5.11	0.226	24.1	83	VOCs	GW-E-11 (44-48) DPT
	GW-E-11	Groundwater	50-54	10/05/00	NA	6.34	0.179	25.8	79	VOCs	GW-E-11 (50-54) DPT
	GW-E-11	Groundwater	54-58	10/05/00	NA	6.93	0.241	24.7	112	VOCs	GW-E-11 (54-58) DPT, Boring terminated 59 ft

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
GW-E-12	GW-E-12	Soil	0-4	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	4-8	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	8-12	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	12-16	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	16-20	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	20-24	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	24-28	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	28-32	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	32-36	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	36-40	10/05/00	0.0	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	40-44	10/05/00	NM	NA	NA	NA	NA	None	Wet Soil at 40 Ft. DPT
	GW-E-12	Soil	44-48	10/05/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-12	Soil	48-54	10/05/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-12	Groundwater	40-44	10/05/00	NA	5.34	0.094	31.3	999	VOCs	GW-E-12 (40-44) DPT
	GW-E-12	Groundwater	44-48	10/05/00	NA	4.88	0.093	28.1	139	VOCs	GW-E-12 (44-48) DPT
	GW-E-12	Groundwater	50-54	10/06/00	NA	5.47	0.323	19.6	220	VOCs	GW-E-12 (50-54) DPT, Boring terminated 54 ft
GW-E-13	SO-E-13	Soil	0-4	10/09/00	<0.5	NA	NA	NA	NA	VOCs	SO-E-13 (0-4 Ft.) DPT
	SO-E-13	Soil	4-8	10/09/00	<0.5	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	8-12	10/09/00	5.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	12-14	10/09/00	7.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	14-16	10/09/00	7.0	NA	NA	NA	NA	VOCs	SO-E-13 (14-16 Ft.) DPT
	SO-E-13	Soil	16-18	10/09/00	7.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	18-20	10/09/00	2.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	20-22	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	22-24	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	24-28	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	28-32	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	32-36	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	36-40	10/09/00	0.0	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	38-40	10/09/00	<0.5	NA	NA	NA	NA	VOCs	SO-E-13 (38-40) DPT
	SO-E-13	Soil	40-44	10/09/00	NM	NA	NA	NA	NA	None	DPT, Soil wet at 44 ft
	SO-E-13	Soil	44-48	10/09/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	48-52	10/09/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	52-56	10/09/00	NM	NA	NA	NA	NA	None	DPT
	SO-E-13	Soil	56-60	10/09/00	NM	NA	NA	NA	NA	None	DPT
	GW-E-13	Groundwater	44-48	10/09/00	NA	4.51	0.102	17.2	794	VOCs	GW-E-13 (44-48) DPT
	GW-E-13	Groundwater	48-52	10/09/00	NA	4.63	0.091	18.6	313	VOCs	GW-E-13 (48-50) DPT
	GW-E-13	Groundwater	56-60	10/09/00	NA	6.71	0.258	20.8	362	VOCs	GW-E-13 (56-60) DPT, Boring terminated 64 ft
GW-E-14	GW-E-14	Groundwater	48-52	10/06/00	NA	6.15	0.186	28.4	216	VOCs	GW-E-14 (48-52) DPT
	GW-E-14	Groundwater	52-56	10/06/00	NA	5.63	0.104	27.4	210	VOCs	GW-E-14 (52-56) DPT
	GW-E-14	Groundwater	56-60	10/06/00	NA	5.66	0.121	28.3	552	VOCs	GW-E-14 (56-60) DPT, Boring terminated 60 ft
GW-E-15	GW-E-15	Groundwater	48-52	10/11/00	NA	5.76	0.130	17.6	960	VOCs	GW-E-15 (48-52) DPT
	GW-E-15	Groundwater	54-58	10/11/00	NA	5.04	0.092	17.5	425	VOCs	GW-E-15 (54-58) DPT
	GW-E-15	Groundwater	61-65	10/11/00	NA	6.88	0.240	19.5	966	VOCs	GW-E-15 (61-65) DPT, Boring terminated 65 ft
GW-E-16	GW-E-16	Groundwater	40-44	10/23/00	NA	4.47	0.106	21.2	118	VOCs	GW-E-16 (40-44) DPT
	GW-E-16	Groundwater	50-54	10/23/00	NA	6.44	0.118	23.1	345	VOCs	GW-E-16 (50-54) DPT
	GW-E-16	Groundwater	57-61	10/23/00	NA	NM	NM	NM	NM	VOCs	GW-E-16 (57-61) DPT, Boring terminated 61 ft
GW-E-17	GW-E-17	Groundwater	48-52	10/26/00	NA	6.07	0.075	16.4	30	VOCs	GW-E-17 (48-52) DPT
	GW-E-17	Groundwater	55-59	10/26/00	NA	5.00	0.060	25.3	278	VOCs	GW-E-17 (55-59) DPT
	GW-E-17	Groundwater	62-66	10/26/00	NA	6.33	0.261	24.3	999	VOCs	GW-E-17 (62-66) DPT, Boring terminated 79 ft
GW-E-18	GW-E-18	Groundwater	51-55	10/25/00	NA	6.37	0.158	27.8	123	VOCs	GW-E-18 (51-55) DPT
	GW-E-18	Groundwater	60-64	10/25/00	NA	6.09	0.146	27.1	91	VOCs	GW-E-18 (60-64) DPT
	GW-E-18	Groundwater	68-72	10/25/00	NA	6.31	0.186	22.6	154	VOCs	GW-E-18 (68-72) DPT, Boring terminated 74 ft
GW-E-19	GW-E-19	Groundwater	51-55	10/25/00	NA	5.07	0.048	19.9	999	VOCs	GW-E-19 (51-53) DPT
	GW-E-19	Groundwater	59-63	10/25/00	NA	5.07	0.049	21.9	999	VOCs	GW-E-19 (59-63) DPT
	GW-E-19	Groundwater	70-74	10/25/00	NA	6.84	0.304	24.5	843	VOCs	GW-E-19 (70-74) DPT, Boring terminated 78.5 ft
GW-AOC-1-1	SO-AOC-1-1	Soil	0-2	10/31/00	31.0	NA	NA	NA	NA	VOCs	SO-AOC-1-1 (0-2) DPT
	SO-AOC-1-1	Soil	4-6	10/31/00	42.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	8-10	10/31/00	44.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	14-16	10/31/00	310.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	18-20	10/31/00	71.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	24-26	10/31/00	180.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	29-31	10/31/00	>1000	NA	NA	NA	NA	VOCs	SO-AOC-1-1 (29-31) DPT
	SO-AOC-1-1	Soil	34-36	10/31/00	770.0	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	38-40	10/31/00	>1000	NA	NA	NA	NA	VOCs	Wet Soil at 40 Ft. SO-AOC-1-1 (38-40) DPT
	SO-AOC-1-1	Soil	44-48	10/31/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	48-52	10/31/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	52-56	10/31/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	56-60	10/31/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-1-1	Soil	60-62	10/31/00	NM	NA	NA	NA	NA	None	DPT
	GW-AOC-1-1	Groundwater	40-44	10/31/00	NA	6.15	0.176	25.0	999	VOCs	GW-AOC-1-1 (40-44) DPT
	GW-AOC-1-1	Groundwater	52-56	10/31/00	NA	5.93	0.130	26.5	47	VOCs	GW-AOC-1-1 (52-56) DPT
	GW-AOC-1-1	Groundwater	59-63	10/31/00	NA	6.81	0.276	25.6	77	VOCs	GW-AOC-1-1 (59-63) DPT, Boring terminated 62.5 ft
GW-AOC-2-1	SO-AOC-2-1	Soil	0-2	10/17/00	16.0	NA	NA	NA	NA	VOCs	SO-AOC-2-1 (0-2) DPT
	SO-AOC-2-1	Soil	4-6	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	8-10	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	14-16	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	18-20	10/17/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-2-1 (18-20) DPT
	SO-AOC-2-1	Soil	24-26	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	28-31	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	34-36	10/17/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-2-1	Soil	38-40	10/17/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-2-1 (38-40) DPT, Soil wet at 42 ft
	GW-AOC-2-1	Groundwater	42-46	10/17/00	NA	6.19	0.235	23.8	999	VOCs	GW-AOC-2-1 (42-46) DPT
	GW-AOC-2-1	Groundwater	52-56	10/17/00	NA	5.02	0.149	27.4	51	VOCs	GW-AOC-2-1 (52-56) DPT
	GW-AOC-2-1	Groundwater	62-66	10/17/00	NA	6.58	0.311	26.3	10	VOCs	GW-AOC-2-1 (62-66) DPT, Boring terminated 67 ft
GW-AOC-3-1	SO-AOC-3-1	Soil	0-2	10/30/00	8.0	NA	NA	NA	NA	VOCs	SO-AOC-3-1 (0-2) DPT
	SO-AOC-3-1	Soil	4-6	11/01/00	25.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	8-10	11/01/00	30.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	14-16	11/01/00	45.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	18-20	11/01/00	33.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	24-26	11/01/00	18.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	29-31	11/01/00	54.0	NA	NA	NA	NA	VOCs	SO-AOC-3-1 (29-31) DPT
	SO-AOC-3-1	Soil	34-36	11/01/00	14.0	NA	NA	NA	NA	None	DPT
	SO-AOC-3-1	Soil	38-40	11/01/00	11.0	NA	NA	NA	NA	VOCs	SO-AOC-3-1 (38-40) DPT, Soil wet at 40 ft
	GW-AOC-3-1	Groundwater	40-44	11/01/00	NA	5.26	0.130	27.3	55	VOCs	GW-AOC-3-1 (40-44) DPT
	GW-AOC-3-1	Groundwater	50-54	11/01/00	NA	5.91	0.137	28.6	243	VOCs	GW-AOC-3-1 (50-54) DPT
	GW-AOC-3-1	Groundwater	55-59	11/01/00	NA	6.19	0.156	28.4	35	VOCs	GW-AOC-3-1 (55-59) DPT, Boring terminated 59 ft
GW-AOC-3-2	SO-AOC-3-2	Soil	0-2	10/30/00	50	NA	NA	NA	NA	VOCs	SO-AOC-3-2 (0-2) DPT
	SO-AOC-3-2	Soil	4-6	10/30/00	40	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	8-10	10/30/00	>100	NA	NA	NA	NA	VOCs	SO-AOC-3-2 (8-10) DPT
	SO-AOC-3-2	Soil	14-16	10/30/00	54	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	18-20	10/30/00	33	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	24-26	10/30/00	25	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	29-31	10/30/00	48	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	34-36	10/30/00	45	NA	NA	NA	NA	None	DPT
	SO-AOC-3-2	Soil	38-40	10/30/00	50	NA	NA	NA	NA	VOCs	SO-AOC-3-2 (38-40) DPT
	SO-AOC-3-2	Soil	40-44	10/30/00	NM	NA	NA	NA	NA	None	Wet Soil at 42 Ft. DPT
	GW-AOC-3-2	Groundwater	40-44	10/30/00	NA	5.17	0.124	27.8	175	VOCs	GW-AOC-3-2 (40-44) DPT
	GW-AOC-3-2	Groundwater	48-52	10/30/00	NA	4.54	0.120	28.0	588	VOCs	GW-AOC-3-2 (48-52) DPT
	GW-AOC-3-2	Groundwater	60-64	10/30/00	NA	6.75	0.249	26.0	137	VOCs	GW-AOC-3-2 (60-64) DPT, Boring terminated 63.5 ft

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
GW-AOC-8-1	SO-AOC-8-1	Soil	0-2	10/11/00	11.0	NA	NA	NA	NA	VOCs	SO-AOC-8-1 (0-2) DPT
	SO-AOC-8-1	Soil	4-6	10/11/00	NM	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	8-10	10/11/00	20.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	14-16	10/11/00	40.0	NA	NA	NA	NA	VOCs	SO-AOC-8-1 (14-16) DPT
	SO-AOC-8-1	Soil	18-20	10/11/00	29.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	24-26	10/11/00	33.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	29-31	10/11/00	13.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	34-36	10/11/00	25.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-1	Soil	38-40	10/11/00	47.0	NA	NA	NA	NA	VOCs	SO-AOC-8-1 (38-40) DPT, Soil wet at 41 ft
	GW-AOC-8-1	Groundwater	40-44	10/18/00	NA	5.40	0.065	29.2	10	VOCs	GW-AOC-8-1 (40-44) DPT
	GW-AOC-8-1	Groundwater	49-53	10/18/00	NA	5.48	0.135	21.9	175	VOCs	GW-AOC-8-1 (49-53) DPT
	GW-AOC-8-1	Groundwater	58-62	10/18/00	NA	NM	0.262	22.7	87	VOCs	GW-AOC-8-1 (58-62) DPT, Boring terminated 62 ft
GW-AOC-8-2	SO-AOC-8-2	Soil	0-2	10/12/00	6.0	NA	NA	NA	NA	VOCs	SO-AOC-8-2 (0-2) DPT
	SO-AOC-8-2	Soil	4-6	10/12/00	10.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	8-10	10/12/00	12.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	14-16	10/12/00	22.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	18-20	10/12/00	62.0	NA	NA	NA	NA	VOCs	SO-AOC-8-2 (18-20) DPT
	SO-AOC-8-2	Soil	24-26	10/12/00	18.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	29-31	10/12/00	5.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	34-36	10/12/00	8.0	NA	NA	NA	NA	None	DPT
	SO-AOC-8-2	Soil	38-40	10/12/00	14.0	NA	NA	NA	NA	VOCs	SO-AOC-8-2 (38-40) DPT, Soil wet at 42 ft
	GW-AOC-8-2	Groundwater	42-46	10/19/00	NA	6.03	0.108	27.8	86	VOCs	GW-AOC-8-2 (42-46) DPT
	GW-AOC-8-2	Groundwater	50-54	10/19/00	NA	NM	NM	NM	NM	VOCs	GW-AOC-8-2 (50-54) DPT
	GW-AOC-8-2	Groundwater	56-60	10/19/00	NA	NM	NM	NM	NM	VOCs	GW-AOC-8-2 (56-60) DPT, Boring terminated 60 ft
GW-AOC-9-1	SO-AOC-9-1	Soil	0-2	10/19/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-9-1 (0-2) DPT
	SO-AOC-9-1	Soil	4-6	10/19/00	40.0	NA	NA	NA	NA	VOCs	SO-AOC-9-2 (4-6) DPT
	SO-AOC-9-1	Soil	8-10	10/19/00	39.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	14-16	10/19/00	16.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	18-20	10/19/00	4.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	24-26	10/19/00	3.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	29-31	10/19/00	3.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-1	Soil	34-36	10/19/00	6.0	NA	NA	NA	NA	VOCs	SO-AOC-9-1 (34-36) DPT
	SO-AOC-9-1	Soil	38-40	10/19/00	4.0	NA	NA	NA	NA	None	Soil Wet at 40 Ft. DPT
	GW-AOC-9-1	Groundwater	40-44	10/19/00	NA	5.76	0.054	26.5	496	VOCs	GW-AOC-9-1 (40-44) DPT
	GW-AOC-9-1	Groundwater	50-54	10/20/00	NA	NM	NM	NM	NM	VOCs	GW-AOC-9-1 (50-54) DPT
	GW-AOC-9-1	Groundwater	58-62	10/20/00	NA	NM	NM	NM	NM	VOCs	GW-AOC-9-1 (58-62) DPT, Boring terminated 62 ft
GW-AOC-9-2	SO-AOC-9-2	Soil	0-4	10/20/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-9-2 (0-2) DPT
	SO-AOC-9-2	Soil	4-8	10/20/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-9-2 (4-6) DPT
	SO-AOC-9-2	Soil	8-12	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	12-16	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	17-20	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	20-24	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	24-28	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	28-32	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	32-36	10/20/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-9-2 (32-34) DPT
	SO-AOC-9-2	Soil	36-40	10/20/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-9-2	Soil	40-44	10/20/00	0.0	NA	NA	NA	NA	None	DPT, Soil wet at 44 ft
	GW-AOC-9-2	Groundwater	44-48	10/20/00	NA	4.93	0.110	25.5	209	VOCs	GW-AOC-9-2 (44-48) DPT
	GW-AOC-9-2	Groundwater	50-54	10/20/00	NA	5.92	0.077	26.0	532	VOCs	GW-AOC-9-2 (50-54) DPT
	GW-AOC-9-2	Groundwater	58-62	10/20/00	NA	6.27	0.148	26.3	389	VOCs	GW-AOC-9-2 (58-62) DPT, Boring terminated 64 ft
GW-AOC-10-1	SO-AOC-10-1	Soil	0-2	10/12/00	0.0	NA	NA	NA	NA	VOCs	SO-AOC-10-1 (0-2) DPT
	SO-AOC-10-1	Soil	4-6	10/12/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	8-10	10/12/00	0.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	14-16	10/12/00	8.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	18-20	10/12/00	12.0	NA	NA	NA	NA	VOCs	SO-AOC-10-1 (18-20) DPT
	SO-AOC-10-1	Soil	24-26	10/12/00	11.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	29-31	10/12/00	6.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	34-36	10/12/00	8.0	NA	NA	NA	NA	None	DPT
	SO-AOC-10-1	Soil	38-40	10/12/00	24.0	NA	NA	NA	NA	VOCs	Wet soil at 40 Ft. SO-AOC-10-1 (38-40) DPT
	GW-AOC-10-1	Groundwater	44-48	10/18/00	NA	6.26	0.194	21.7	10	VOCs	GW-AOC-10-1 (44-48) DPT
	GW-AOC-10-1	Groundwater	52-56	10/18/00	NA	4.74	0.152	29.0	103	VOCs	GW-AOC-10-1 (52-56) DPT
	GW-AOC-10-1	Groundwater	60-64	10/18/00	NA	6.59	0.194	28.8	999	VOCs	GW-AOC-10-1 (60-64) DPT, Boring terminated 64 ft
STB-1	STB-1	Soil	60-60.5	11/27/00	NM	NA	NA	NA	NA	pH, TOC	Sand, Rotosonic soil coring
	STB-1	Soil	67-69.5	11/27/00	NM	NA	NA	NA	NA	Water Retention, Permeability, Grain Size, and Specific Gravity	Rotosonic soil coring
	STB-1	Soil	72	11/27/00	NM	NA	NA	NA	NA	pH, TOC	Clay, Rotosonic soil coring
	STB-1	Soil	72-73	11/27/00	NM	NA	NA	NA	NA	Water Retention, Permeability, Grain Size, and Specific Gravity	Clay, Rotosonic soil coring
STB-2	STB-2	Soil	0-12	03/27/03	NM	NA	NA	NA	NA	None	DPT
STB-3	STB-3	Soil	0-12.5	03/14/03	NM	NA	NA	NA	NA	None	DPT
SB-101/ MW-7	0-2	Soil	0-2	02/06/03	1.1	NA	NA	NA	NA	VOCs	SB-101 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	02/06/03	2.4	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	02/06/03	18.3	NA	NA	NA	NA	None	Rotosonic soil coring
	6-8	Soil	6-8	02/06/03	5.0	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	02/06/03	11.8	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	02/06/03	21.5	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	02/06/03	2617.0	NA	NA	NA	NA	VOCs	SB-101 (12-14 ft), Rotosonic soil coring
	14-16	Soil	14-16	02/06/03	41.7	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	02/06/03	68.5	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	02/06/03	828.0	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	02/06/03	77.2	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	02/06/03	24.8	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	02/06/03	21.1	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	02/06/03	17.8	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	02/06/03	10.9	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	02/06/03	9.0	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	02/06/03	18.1	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	02/06/03	17.6	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	02/06/03	16.4	NA	NA	NA	NA	VOCs	SB-101 (36-38 ft), Rotosonic soil coring
	38-40	Soil	38-40	02/06/03	NM	NA	NA	NA	NA	None	Wet Soil at 40 ft, Rotosonic soil coring
	40-42	Soil	40-42	02/06/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	42-44	Soil	42-44	02/06/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	44-46	Soil	44-46	02/06/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	46-48	Soil	46-48	02/06/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring, Boring terminated 58 ft

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-102	1.0	Soil	1.0	1/21/2003	0.0	NA	NA	NA	NA	VOCs	SB-102 (0-2 ft), DPT
	2.0	Soil	2.0	1/21/2003	0.0	NA	NA	NA	NA		
	3.0	Soil	3.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	4.0	Soil	4.0	1/21/2003	0.1	NA	NA	NA	NA	None	DPT
	5.0	Soil	5.0	1/21/2003	80.2	NA	NA	NA	NA	VOCs	SB-102 (5-6 ft), DPT
	6..0	Soil	6.0	1/21/2003	5.0	NA	NA	NA	NA		
	7.0	Soil	7.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	9.0	Soil	9.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/21/2003	75.7	NA	NA	NA	NA	None	DPT
	12.0	Soil	12.0	1/21/2003	16.1	NA	NA	NA	NA	None	DPT
	13.0	Soil	13.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	1/21/2003	1.8	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	1/21/2003	77.6	NA	NA	NA	NA	None	DPT
	16.0	Soil	16.0	1/21/2003	15.7	NA	NA	NA	NA	None	DPT
	17.0	Soil	17.0	1/21/2003	66.3	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	1/21/2003	15.2	NA	NA	NA	NA	None	DPT
	19.0	Soil	19.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	20.0	Soil	20.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	1/21/2003	22.7	NA	NA	NA	NA	None	DPT
	22.0	Soil	22.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	23.0	Soil	23.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	24.0	Soil	24.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	25.0	Soil	25.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	27.0	Soil	27.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	28.0	Soil	28.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	30.0	Soil	30.0	1/21/2003	NM	NA	NA	NA	NA	None	DPT
	31.0	Soil	31.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	32.0	Soil	32.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	33.0	Soil	33.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	34.0	Soil	34.0	1/21/2003	NM	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	1/21/2003	0.0	NA	NA	NA	NA	VOCs	SB-102 (35-36 ft), DPT
	36.0	Soil	36.0	1/21/2003	0.0	NA	NA	NA	NA		
	37.0	Soil	37.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT
	38.0	Soil	38.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT, Soil wet at 38.5 ft
	39.0	Soil	39.0	1/21/2003	0.0	NA	NA	NA	NA	None	DPT, Boring terminated 41 ft
SB-103/MW-8	0-2	Soil	0-2	2/6/2003	1.8	NA	NA	NA	NA	VOCs	SB-103 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	2/6/2003	13.0	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	2/6/2003	164.0	NA	NA	NA	NA	None	Rotosonic soil coring
	6-8	Soil	6-8	2/6/2003	502.0	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	2/6/2003	32.6	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	2/6/2003	23.7	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	2/6/2003	10.3	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	2/6/2003	5.3	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	2/6/2003	9.1	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	2/6/2003	60.3	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	2/6/2003	66.2	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	2/6/2003	441.0	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	2/6/2003	45.0	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	2/6/2003	579.0	NA	NA	NA	NA	VOCs	SB-103 (26-28 ft), Rotosonic soil coring
	28-30	Soil	28-30	2/6/2003	402.0	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	2/6/2003	394.0	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	2/6/2003	379.0	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	2/6/2003	369.0	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	2/6/2003	361.0	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	2/6/2003	412.0	NA	NA	NA	NA	None	Rotosonic soil coring
	40-42	Soil	40-42	2/6/2003	362.0	NA	NA	NA	NA	None	Rotosonic soil coring
	42-44	Soil	42-44	2/6/2003	389.0	NA	NA	NA	NA	None	Rotosonic soil coring
	44-46	Soil	44-46	2/6/2003	388.0	NA	NA	NA	NA	None	Rotosonic soil coring, Soil wet at 46 ft
	46-48	Soil	46-48	2/6/2003	NM	NA	NA	NA	NA	VOCs	SB-103 (46-48 ft), Rotosonic soil coring, Boring terminated 72 ft
SB-104	1.0	Soil	1.0	1/21/2003	0.0	NA	NA	NA	NA	VOCs	SB-104 (0-2 ft), Rotosonic soil coring
	3.0	Soil	3.0	1/21/2003	0.0	NA	NA	NA	NA	None	Rotosonic soil coring
	5.0	Soil	5.0	1/21/2003	2.0	NA	NA	NA	NA	None	Rotosonic soil coring
	7.0	Soil	7.0	1/21/2003	0.4	NA	NA	NA	NA	None	Rotosonic soil coring
	8.0	Soil	8.0	1/21/2003	7.1	NA	NA	NA	NA	None	Rotosonic soil coring
	10.0	Soil	10.0	1/21/2003	0.2	NA	NA	NA	NA	None	Rotosonic soil coring
	11.0	Soil	11.0	1/21/2003	12.3	NA	NA	NA	NA	None	Rotosonic soil coring
	13.0	Soil	13.0	1/21/2003	0.2	NA	NA	NA	NA	None	Rotosonic soil coring
	14.0	Soil	14.0	1/21/2003	18.6	NA	NA	NA	NA	None	Rotosonic soil coring
	16.0	Soil	16.0	1/21/2003	20.0	NA	NA	NA	NA	None	Rotosonic soil coring
	17.0	Soil	17.0	1/21/2003	31.2	NA	NA	NA	NA	None	Rotosonic soil coring
	19.0	Soil	19.0	1/21/2003	0.8	NA	NA	NA	NA	None	Rotosonic soil coring
	20.0	Soil	20.0	1/21/2003	49.0	NA	NA	NA	NA	None	Rotosonic soil coring
	22.0	Soil	22.0	1/21/2003	144.0	NA	NA	NA	NA	VOCs	SB-104 (21-22 ft), Rotosonic soil coring
	24.0	Soil	24.0	1/21/2003	23.0	NA	NA	NA	NA	None	Rotosonic soil coring
	26.0	Soil	26.0	1/21/2003	58.4	NA	NA	NA	NA	None	Rotosonic soil coring
	28.0	Soil	28.0	1/21/2003	53.0	NA	NA	NA	NA	None	Rotosonic soil coring
	30.0	Soil	30.0	1/21/2003	67.1	NA	NA	NA	NA	None	Rotosonic soil coring
	32.0	Soil	32.0	1/21/2003	19.5	NA	NA	NA	NA	None	Rotosonic soil coring
	34.0	Soil	34.0	1/21/2003	0.3	NA	NA	NA	NA	None	Rotosonic soil coring
	36.0	Soil	36.0	1/21/2003	22.5	NA	NA	NA	NA	None	Rotosonic soil coring
	38.0	Soil	38.0	1/21/2003	131.0	NA	NA	NA	NA	None	Rotosonic soil coring
	40.0	Soil	40.0	1/21/2003	2.6	NA	NA	NA	NA	VOCs	SB-104 (40-42 ft), Rotosonic soil coring
	42.0	Soil	42.0	1/21/2003	44.0	NA	NA	NA	NA		
	42-45	Soil	42-45	1/21/2003	0.0	NA	NA	NA	NA	None	Rotosonic soil coring
	45-46	Soil	45-46	1/21/2003	0.0	NA	NA	NA	NA	None	Rotosonic soil coring, Soil wet at 47 ft
	46-47	Soil	46-47	1/21/2003	0.0	NA	NA	NA	NA	None	Rotosonic soil coring, Boring terminated 48 ft
SB-105	1.0	Soil	1.0	1/22/2003	1.8	NA	NA	NA	NA	VOCs	SB-105 (0-2 ft), DPT
	3.0	Soil	3.0	1/22/2003	0.2	NA	NA	NA	NA	None	DPT
	5.0	Soil	5.0	1/22/2003	4.3	NA	NA	NA	NA	None	DPT
	7.0	Soil	7.0	1/22/2003	0.0	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/22/2003	4.6	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	1/22/2003	0.0	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/22/2003	27.1	NA	NA	NA	NA	VOCs	SB-105 (11-12 ft), DPT
	13.0	Soil	13.0	1/22/2003	23.8	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	1/22/2003	14.2	NA	NA	NA	NA	None	DPT
	16.0	Soil	16.0	1/22/2003	9.9	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	1/22/2003	7.9	NA	NA	NA	NA	None	DPT
	20.0	Soil	20.0	1/22/2003	10.3	NA	NA	NA	NA	None	DPT
	22.0	Soil	22.0	1/22/2003	7.8	NA	NA	NA	NA	None	DPT
	24.0	Soil	24.0	1/22/2003	2.3	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	1/22/2003	3.6	NA	NA	NA	NA	None	DPT
	28.0	Soil	28.0	1/22/2003	3.7	NA	NA	NA	NA	None	DPT
	30.0	Soil	30.0	1/22/2003	0.1	NA	NA	NA	NA	None	DPT
	32.0	Soil	32.0	1/22/2003	0.4	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	1/22/2003	64.8	NA	NA	NA	NA	None	DPT
	37.0	Soil	37.0	1/22/2003	82.0	NA	NA	NA	NA	VOCs	SB-105 (37-38 ft), DPT
	39.0	Soil	39.0	1/22/2003	21.2	NA	NA	NA	NA	None	DPT, Soil wet at 40.6 ft, Boring terminated 42 ft

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-106	2.0	Soil	2.0	1/23/2003	0.8	NA	NA	NA	NA	VOCs	SB-106 (0-2 ft), DPT
	4.0	Soil	4.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	5.0	Soil	5.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	7.0	Soil	7.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/23/2003	0.4	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	13.0	Soil	13.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	1/23/2003	0.5	NA	NA	NA	NA	None	DPT
	16.0	Soil	16.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	20.0	Soil	20.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	22.0	Soil	22.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	24.0	Soil	24.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	1/23/2003	0.3	NA	NA	NA	NA	None	DPT
	28.0	Soil	28.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	1/23/2003	0.8	NA	NA	NA	NA	VOCs	SB-106 (29-30 ft), DPT
	31.0	Soil	31.0	1/23/2003	0.1	NA	NA	NA	NA	None	DPT
	32.0	Soil	32.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	34.0	Soil	34.0	1/23/2003	0.5	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	1/23/2003	0.4	NA	NA	NA	NA	None	DPT
	37.0	Soil	37.0	1/23/2003	0.6	NA	NA	NA	NA	None	DPT
	38.0	Soil	38.0	1/23/2003	0.3	NA	NA	NA	NA	None	DPT
	40.0	Soil	40.0	1/23/2003	0.4	NA	NA	NA	NA	None	DPT
	41.0	Soil	41.0	1/23/2003	1.0	NA	NA	NA	NA	None	DPT
	43.0	Soil	43.0	1/23/2003	1.1	NA	NA	NA	NA	VOCs	SB-106 (42-43 ft), DPT
	44-45	Soil	44-45	1/23/2003	0.2	NA	NA	NA	NA	None	DPT, Soil wet at 45.8 ft
	45-46	Soil	45-46	1/23/2003	0.2	NA	NA	NA	NA	None	DPT, Boring terminated 46 ft
SB-107/MW-9	0-2	Soil	0-2	2/7/2003	197.0	NA	NA	NA	NA	VOCs	SB-107 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	2/7/2003	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	2/7/2003	180.0	NA	NA	NA	NA	None	Rotosonic soil coring
	6-8	Soil	6-8	2/7/2003	160.0	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	2/7/2003	152.0	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	2/7/2003	285.0	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	2/7/2003	134.0	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	2/7/2003	642.0	NA	NA	NA	NA	VOCs	SB-107 (14-16 ft), Rotosonic soil coring
	16-18	Soil	16-18	2/7/2003	85.8	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	2/7/2003	96.1	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	2/7/2003	76.2	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	2/7/2003	35.4	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	2/7/2003	23.2	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	2/7/2003	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	2/7/2003	91.2	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	2/7/2003	204.0	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	2/7/2003	514.0	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	2/7/2003	258.0	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	2/7/2003	154.0	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	2/10/2003	184.0	NA	NA	NA	NA	VOCs	SB-107 (38-40 ft), Rotosonic soil coring, Soil wet at 41.5 ft, Boring terminated at 69 ft
SB-108	2.0	Soil	2.0	1/24/2003	0.1	NA	NA	NA	NA	VOCs	SB-108 (0-2 ft), DPT
	4.0	Soil	4.0	1/24/2003	0.2	NA	NA	NA	NA	None	DPT
	6.0	Soil	6.0	1/24/2003	0.0	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/24/2003	0.3	NA	NA	NA	NA	None	DPT
	9.0	Soil	9.0	1/24/2003	1.1	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/24/2003	0.3	NA	NA	NA	NA	None	DPT
	12.0	Soil	12.0	1/24/2003	1.4	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	1/24/2003	0.6	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	1/24/2003	0.6	NA	NA	NA	NA	None	DPT
	17.0	Soil	17.0	1/24/2003	0.0	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	1/24/2003	1.9	NA	NA	NA	NA	None	DPT
	20.0	Soil	20.0	1/24/2003	0.2	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	1/24/2003	0.4	NA	NA	NA	NA	None	DPT
	23.0	Soil	23.0	1/24/2003	0.3	NA	NA	NA	NA	None	DPT
	24.0	Soil	24.0	1/24/2003	8.7	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	1/24/2003	0.3	NA	NA	NA	NA	None	DPT
	27.0	Soil	27.0	1/24/2003	14.5	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	1/24/2003	10.6	NA	NA	NA	NA	VOCs	SB-108 (29-30 ft), DPT
	30.0	Soil	30.0	1/24/2003	31.4	NA	NA	NA	NA		
	32.0	Soil	32.0	1/24/2003	4.8	NA	NA	NA	NA	None	DPT
	33.0	Soil	33.0	1/24/2003	7.9	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	1/24/2003	4.7	NA	NA	NA	NA	None	DPT
	36.0	Soil	36.0	1/24/2003	28.5	NA	NA	NA	NA	None	DPT
	38.0	Soil	38.0	1/24/2003	5.3	NA	NA	NA	NA	None	DPT
	39.0	Soil	39.0	1/24/2003	2.1	NA	NA	NA	NA	None	DPT
	41.0	Soil	41.0	1/24/2003	3.7	NA	NA	NA	NA	None	DPT
	42.0	Soil	42.0	1/24/2003	0.9	NA	NA	NA	NA	None	DPT
	44.0	Soil	44.0	1/24/2003	3.2	NA	NA	NA	NA	None	DPT
	45.0	Soil	45.0	1/24/2003	0.6	NA	NA	NA	NA	VOCs	SB-108 (45-46 ft), DPT
	47.0	Soil	47.0	1/24/2003	8.3	NA	NA	NA	NA	None	Wet soil 47 ft, DPT, Boring terminated 50 ft.
SB-109	2.0	Soil	2.0	1/23/2003	1.1	NA	NA	NA	NA	VOCs	SB-109 (0-2 ft), DPT
	4.0	Soil	4.0	1/23/2003	0.2	NA	NA	NA	NA	None	DPT
	5.0	Soil	5.0	1/23/2003	1.0	NA	NA	NA	NA	None	DPT
	7.0	Soil	7.0	1/23/2003	0.0	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	1/23/2003	1.6	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	1/23/2003	0.3	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	1/23/2003	21.6	NA	NA	NA	NA	VOCs	SB-109 (11-12 ft), DPT
	13.0	Soil	13.0	1/23/2003	20.4	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	1/23/2003	6.6	NA	NA	NA	NA	None	DPT
	17.0	Soil	17.0	1/23/2003	3.5	NA	NA	NA	NA	None	DPT
	19.0	Soil	19.0	1/23/2003	4.2	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	1/23/2003	5.3	NA	NA	NA	NA	None	DPT
	23.0	Soil	23.0	1/23/2003	7.0	NA	NA	NA	NA	None	DPT
	25.0	Soil	25.0	1/23/2003	5.8	NA	NA	NA	NA	None	DPT
	27.0	Soil	27.0	1/23/2003	4.1	NA	NA	NA	NA	VOCs	SB-109 (27-28 ft), DPT
	29.0	Soil	29.0	1/23/2003	1.3	NA	NA	NA	NA	None	DPT, Soil wet at 28 ft
	31.0	Soil	31.0	1/23/2003	3.2	NA	NA	NA	NA	None	DPT, Boring terminated 33 ft

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-110/MW-10	0-2	Soil	0-2	02/10/03	270.0	NA	NA	NA	NA	VOCs	SB-110 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	02/10/03	182.0	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	02/10/03	184.0	NA	NA	NA	NA	VOCs	SB-110 (4-6 ft), Rotosonic soil coring
	6-8	Soil	6-8	02/10/03	134.0	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	02/10/03	57.4	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	02/10/03	96.2	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	02/10/03	41.7	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	02/10/03	29.3	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	02/10/03	22.3	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	02/10/03	10.0	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	02/10/03	17.3	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	02/10/03	15.3	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	02/10/03	13.3	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	02/10/03	14.7	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	02/10/03	11.0	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	02/10/03	18.4	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	02/10/03	11.3	NA	NA	NA	NA	VOCs	SB-110 (32-34 ft), Rotosonic soil coring
	34-36	Soil	34-36	02/10/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	02/10/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	02/10/03	NM	NA	NA	NA	NA	None	Wet soil 40 ft, Rotosonic soil coring, Boring terminated 49.5 ft.
SB-111	2.0	Soil	2.0	01/22/03	0.5	NA	NA	NA	NA	VOCs	SB-111 (0-2 ft), DPT
	4.0	Soil	4.0	01/22/03	0.0	NA	NA	NA	NA	None	DPT
	6.0	Soil	6.0	01/22/03	2.2	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	01/22/03	2.4	NA	NA	NA	NA	None	DPT
	10.0	Soil	10.0	01/22/03	0.0	NA	NA	NA	NA	None	DPT
	12.0	Soil	12.0	01/22/03	0.0	NA	NA	NA	NA	None	DPT
	13.0	Soil	13.0	01/22/03	5.4	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	01/22/03	3.8	NA	NA	NA	NA	None	DPT
	16.0	Soil	16.0	01/22/03	1.5	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	01/22/03	0.0	NA	NA	NA	NA	None	DPT
	19.0	Soil	19.0	01/22/03	17.1	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	01/22/03	10.6	NA	NA	NA	NA	VOCs	SB-111 (21-22 ft), DPT
	22.0	Soil	22.0	01/22/03	22.0	NA	NA	NA	NA		
	24.0	Soil	24.0	01/22/03	1.3	NA	NA	NA	NA	None	DPT
	26.0	Soil	26.0	01/22/03	8.6	NA	NA	NA	NA	None	DPT
	28.0	Soil	28.0	01/22/03	4.0	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	01/22/03	7.2	NA	NA	NA	NA	None	DPT
	31.0	Soil	31.0	01/22/03	6.4	NA	NA	NA	NA	None	DPT
	33.0	Soil	33.0	01/22/03	18.8	NA	NA	NA	NA	VOCs	SB-111 (32-33 ft), DPT
	35.0	Soil	35.0	01/22/03	1.8	NA	NA	NA	NA	None	DPT, Soil wet at 34.3 ft, Boring terminated 37 ft
SB-112	2.0	Soil	2.0	01/23/03	0.5	NA	NA	NA	NA	VOCs	SB-112 (0-2 ft), DPT
	4.0	Soil	4.0	01/23/03	0.1	NA	NA	NA	NA	None	DPT
	6.0	Soil	6.0	01/23/03	0.1	NA	NA	NA	NA	None	DPT
	8.0	Soil	8.0	01/23/03	0.2	NA	NA	NA	NA	None	DPT
	9.0	Soil	9.0	01/23/03	0.6	NA	NA	NA	NA	None	DPT
	11.0	Soil	11.0	01/23/03	0.4	NA	NA	NA	NA	None	DPT
	12.0	Soil	12.0	01/23/03	2.4	NA	NA	NA	NA	None	DPT
	14.0	Soil	14.0	01/23/03	0.6	NA	NA	NA	NA	None	DPT
	15.0	Soil	15.0	01/23/03	12.7	NA	NA	NA	NA	None	DPT
	17.0	Soil	17.0	01/23/03	8.6	NA	NA	NA	NA	None	DPT
	18.0	Soil	18.0	01/23/03	57.9	NA	NA	NA	NA	VOCs	SB-112 (18-19 ft) / SB-200 (10-11), DPT
	20.0	Soil	20.0	01/23/03	40.3	NA	NA	NA	NA	None	DPT
	21.0	Soil	21.0	01/23/03	20.4	NA	NA	NA	NA	None	DPT
	23.0	Soil	23.0	01/23/03	2.1	NA	NA	NA	NA	None	DPT
	25.0	Soil	25.0	01/23/03	45.7	NA	NA	NA	NA	None	DPT
	27.0	Soil	27.0	01/23/03	32.1	NA	NA	NA	NA	None	DPT
	29.0	Soil	29.0	01/23/03	25.8	NA	NA	NA	NA	None	DPT
	31.0	Soil	31.0	01/23/03	20.6	NA	NA	NA	NA	None	DPT
	33.0	Soil	33.0	01/23/03	15.9	NA	NA	NA	NA	None	DPT
	35.0	Soil	35.0	01/23/03	20.1	NA	NA	NA	NA	None	DPT
	36.0	Soil	36.0	01/23/03	1.1	NA	NA	NA	NA	None	DPT
	38.0	Soil	38.0	01/23/03	5.1	NA	NA	NA	NA	VOCs	SB-112 (38-39 ft), DPT, Soil wet at 40.2 ft
	39.0	Soil	39.0	01/23/03	7.5	NA	NA	NA	NA		
	41.0	Soil	41.0	01/23/03	31.1	NA	NA	NA	NA	None	DPT, Boring terminated 41 ft
SB-113	0.2	Soil	0-2	2/3-5/03	141.0	NA	NA	NA	NA	VOC/SPLP VOC	SB-113 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	2/3-5/03	87.2	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	2/3-5/03	57.0	NA	NA	NA	NA	VOCs	SB-113 (4-6 ft), Rotosonic soil coring
	6-8	Soil	6-8	2/3-5/03	52.2	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	2/3-5/03	7.9	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	2/3-5/03	21.1	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	2/3-5/03	41.3	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	2/3-5/03	24.8	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	2/3-5/03	27.6	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	2/3-5/03	35.4	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	2/3-5/03	39.6	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	24-26	Soil	24-26	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	2/3-5/03	54.1	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	2/3-5/03	52.6	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	2/3-5/03	28.2	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	2/3-5/03	31.8	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	2/3-5/03	51.8	NA	NA	NA	NA	None	Rotosonic soil coring
	40-42	Soil	40-42	2/3-5/03	36.1	NA	NA	NA	NA	VOCs	SB-113 (40-42 ft), Rotosonic soil coring,
	42-44	Soil	42-44	2/3-5/03	NM	NA	NA	NA	NA	specific gravity, grain size, falling head perm, water retention	SB-113 (43-45 ft), Rotosonic soil coring, Soil wet at 42 ft
	44-46	Soil	44-46	2/3-5/03	NM	NA	NA	NA	NA		
	46-48	Soil	46-48	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	48-50	Soil	48-50	2/3-5/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring
	43.5-47.5	Groundwater	43.5-47.5	02/05/03	NA	NM	NM	NM	NM	VOCs	SB-113 (43.5-47.5) Uppermost, Rotosonic Isoflow system
	57-62	Groundwater	57-62	02/05/03	NA	NM	NM	NM	NM	VOCs	SB-113 (57-62) Twiggs, Rotosonic Isoflow system, Boring terminated 78.5 ft

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
SB-114	0-2	Soil	0-2	02/05/03	27.7	NA	NA	NA	NA	VOCs	SB-114 (0-2 ft), Rotosonic soil coring
	2-4	Soil	2-4	02/05/03	25.3	NA	NA	NA	NA	None	Rotosonic soil coring
	4-6	Soil	4-6	02/05/03	28.3	NA	NA	NA	NA	None	Rotosonic soil coring
	6-8	Soil	6-8	02/05/03	32.6	NA	NA	NA	NA	None	Rotosonic soil coring
	8-10	Soil	8-10	02/05/03	39.4	NA	NA	NA	NA	None	Rotosonic soil coring
	10-12	Soil	10-12	02/05/03	45.7	NA	NA	NA	NA	None	Rotosonic soil coring
	12-14	Soil	12-14	02/05/03	44.0	NA	NA	NA	NA	None	Rotosonic soil coring
	14-16	Soil	14-16	02/05/03	47.9	NA	NA	NA	NA	None	Rotosonic soil coring
	16-18	Soil	16-18	02/05/03	72.5	NA	NA	NA	NA	None	Rotosonic soil coring
	18-20	Soil	18-20	02/05/03	69.3	NA	NA	NA	NA	None	Rotosonic soil coring
	20-22	Soil	20-22	02/05/03	55.8	NA	NA	NA	NA	None	Rotosonic soil coring
	22-24	Soil	22-24	02/05/03	86.1	NA	NA	NA	NA	VOCs / SPLP VOCs	SB-114 (22-24 ft), Rotosonic soil coring
	24-26	Soil	24-26	02/05/03	41.1	NA	NA	NA	NA	None	Rotosonic soil coring
	26-28	Soil	26-28	02/05/03	43.1	NA	NA	NA	NA	None	Rotosonic soil coring
	28-30	Soil	28-30	02/05/03	17.8	NA	NA	NA	NA	None	Rotosonic soil coring
	30-32	Soil	30-32	02/05/03	40.9	NA	NA	NA	NA	None	Rotosonic soil coring
	32-34	Soil	32-34	02/05/03	39.6	NA	NA	NA	NA	None	Rotosonic soil coring
	34-36	Soil	34-36	02/05/03	28.3	NA	NA	NA	NA	None	Rotosonic soil coring
	36-38	Soil	36-38	02/05/03	34.1	NA	NA	NA	NA	None	Rotosonic soil coring
	38-40	Soil	38-40	02/05/03	24.5	NA	NA	NA	NA	None	Rotosonic soil coring
	40-42	Soil	40-42	02/05/03	45.0	NA	NA	NA	NA	None	Rotosonic soil coring
	42-44	Soil	42-44	02/05/03	39.0	NA	NA	NA	NA	VOCs	SB-114 (42-44 ft), Rotosonic soil coring
	45.0	Soil	45.0	02/05/03	NM	NA	NA	NA	NA	None	Rotosonic soil coring, Soil wet at 45 ft
	45-48	Groundwater	45-48	02/05/03	NA	NM	NM	NM	NM	VOCs	SB-114 (45-48 ft) Uppermost, Rotosonic Isoflow system
	60-65	Groundwater	60-65	02/05/03	NA	NM	NM	NM	NM	VOCs	SB-114 (60-65 ft) Twiggs, Rotosonic Isoflow system, Boring terminated 78.5 ft
SB-115	0-2	Soil	0-2	03/13/03	29.4	NA	NA	NA	NA	VOCs	SB-115 (0 -2), DPT
	4-8	Soil	4-8	03/13/03	9.6/1.1	NA	NA	NA	NA	None	DPT
	8-11.5	Soil	8-11.5	03/13/03	9.7/3.4	NA	NA	NA	NA	None	DPT
	11.5-15	Soil	11.5-15	03/13/03	3.4/71.2	NA	NA	NA	NA	VOCs	SB-115 (11-13), DPT
	15-18.5	Soil	15-18.5	03/13/03	359/242	NA	NA	NA	NA	None	DPT
	18.5-22	Soil	18.5-22	03/13/03	1050/550	NA	NA	NA	NA	VOCs	SB-115 (18-20), DPT
	22-25.5	Soil	22-25.5	03/13/03	100	NA	NA	NA	NA	None	DPT
	25.5-27	Soil	25.5-27	03/13/03	NM	NA	NA	NA	NA	None	DPT
	27-30	Soil	27-30	03/13/03	NM	NA	NA	NA	NA	None	DPT
	30-33.5	Soil	30-33.5	03/13/03	NM	NA	NA	NA	NA	None	DPT
	33.5-37	Soil	33.5-37	03/13/03	NM	NA	NA	NA	NA	None	DPT
	24-27	Groundwater	24-27	03/13/03	NA	NM	NM	NM	NM	VOCs	SB-115 (24-27) Uppermost, DPT
	35-37	Groundwater	25-37	03/13/03	NA	NM	NM	NM	NM	VOCs	SB-115 (35-37) Twiggs, DPT, Soil wet at 33 ft, Boring terminated 37 ft
SB-116	0-4	Soil	0-4	03/12/03	2.3/0.8	NA	NA	NA	NA	VOCs	SB-116 (0-2), DPT
	4-8	Soil	4-8	03/12/03	0.9/0.8	NA	NA	NA	NA	None	DPT
	8-12	Soil	8-12	03/12/03	0.0	NA	NA	NA	NA	None	DPT
	12-15.5	Soil	12-15.5	03/12/03	1.7/0.3	NA	NA	NA	NA	None	DPT
	15.5-19	Soil	15.5-19	03/12/03	0.0	NA	NA	NA	NA	None	DPT
	19-22.5	Soil	19-22.5	03/12/03	73.5	NA	NA	NA	NA	None	DPT
	22.5-26	Soil	22.5-26	03/12/03	44.9/12.9	NA	NA	NA	NA	None	DPT
	26-29.5	Soil	26-29.5	03/12/03	0.0/92.3	NA	NA	NA	NA	None	DPT
	29.5-33	Soil	29.5-33	03/12/03	11.9	NA	NA	NA	NA	None	DPT
	33-36.5	Soil	33-36.5	03/12/03	124.0	NA	NA	NA	NA	None	DPT
	36.5-40.0	Soil	36.5-40.0	03/12/03	NM	NA	NA	NA	NA	None	DPT
	40.0-43.5	Soil	40.0-43.5	03/12/03	NM	NA	NA	NA	NA	None	DPT, Boring terminated 43.5 ft
SB-117	0.0-4.0	Soil	0.0-4.0	03/12/03	0.0	NA	NA	NA	NA	VOCs	SB-117 (0-2), DPT
	4.0-8.0	Soil	4.0-8.0	03/12/03	2.4/1.3	NA	NA	NA	NA	None	DPT
	8.0-11.5	Soil	8.0-11.5	03/12/03	0.0	NA	NA	NA	NA	None	DPT
	11.5-15.0	Soil	11.5-15.0	03/12/03	17.3	NA	NA	NA	NA	VOCs	SB-117 (12-14), DPT
	15.0-18.5	Soil	15.0-18.5	03/12/03	2.1/0.0	NA	NA	NA	NA	None	DPT
	18.5-22.0	Soil	18.5-22.0	03/12/03	0.8/0.0	NA	NA	NA	NA	None	DPT
	22.0-25.5	Soil	22.0-25.5	03/12/03	2.1/1.3	NA	NA	NA	NA	None	DPT
	25.5-29.0	Soil	25.5-29.0	03/12/03	1.8	NA	NA	NA	NA	None	DPT
	29.0-32.5	Soil	29.0-32.5	03/12/03	0.0/0.8	NA	NA	NA	NA	None	DPT
	32.5-36.0	Soil	32.5-36.0	03/12/03	2.1/2.4	NA	NA	NA	NA	None	DPT
	36.0-39.5	Soil	36.0-39.5	03/12/03	2.1/5.0	NA	NA	NA	NA	None	DPT
	39.5-43.0	Soil	39.5-43.0	03/12/03	0.0	NA	NA	NA	NA	None	DPT
	43.0-46.5	Soil	43.0-46.5	03/12/03	0.0/4.9	NA	NA	NA	NA	VOCs	SB-117 (44-46), DPT
	46.5-50.0	Soil	46.5-50.0	03/12/03	NM	NA	NA	NA	NA	None	DPT, Soil wet at 48 ft, Boring terminated 50 ft
SB-118	0.0-4.0	Soil	0.0-4.0	03/26/03	0.8/3.7	NA	NA	NA	NA	VOCs	SB-118 (0-2), DPT
	4.0-8.0	Soil	4.0-8.0	03/26/03	1.5	NA	NA	NA	NA	VOCs	SB-118 (4-5), DPT, Soil wet at 6 ft
	8.0-10.0	Soil	8.0-10.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	10.0-14.0	Soil	10.0-14.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	14.0-17.0	Soil	14.0-17.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	17.0-19.0	Soil	17.0-19.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	19.0-21.0	Soil	19.0-21.0	03/26/03	NM	NA	NA	NA	NA	None	DPT
	6-10	Groundwater	6-10	03/26/03	NA	NM	NM	NM	NM	VOCs	SB-118 (6-10) Uppermost, DPT
	17-21	Groundwater	17-21	03/26/03	NA	NM	NM	NM	NM	VOCs	SB-118 (17-21) Twiggs, DPT, Boring terminated 21 ft
HA-1	0.4-2.1	Soil	0.4-2.1	03/27/03	5.8	NA	NA	NA	NA	VOCs	HA-1 0.4-2.1, Handauger
HA-2	0.35-2.1	Soil	0.35-2.1	03/27/03	80.1	NA	NA	NA	NA	VOCs	HA-2 0.35-2.1, Handauger
HA-3	0.35-2.1	Soil	0.35-2.1	03/27/03	1.4	NA	NA	NA	NA	VOCs	HA-3 0.35-2.05, Handauger
HA-4	0.42-1.9	Soil	0.42-1.9	03/27/03	4.9	NA	NA	NA	NA	VOCs	HA-4 0.42-1.95, Handauger
HA-5	0.4-2.2	Soil	0.4-2.2	03/27/03	12.7	NA	NA	NA	NA	VOCs	HA-5 0.4-2.2, Handauger
HA-6	1.2-2	Soil	1.2-2	03/27/03	NM	NA	NA	NA	NA	VOCs	HA-6 1.2-2, Handauger
HA-7	3-5	Soil	3-5	03/27/03	3.0/5.1	NA	NA	NA	NA	VOCs	HA-7 3-5, Handauger
HA-8	0-0.5	Soil	0-0.5	03/27/03	255.0	NA	NA	NA	NA	VOCs	HA-8 0-0.5, Handauger
SPLP AOC-1 HA-2	0.35-2.1	Soil	0.4-2.1	03/27/03	NM	NA	NA	NA	NA	SPLP VOCs	SPLP AOC-1 HA-2, Handauger
SPLP AOC-3 HA-6	1.2-2	Soil	1.2-2	03/27/03	NM	NA	NA	NA	NA	SPLP VOCs	SPLP AOC-3 HA-6, Handauger
Kd-1	0-1	Soil	0-1	04/12/05	134	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	385	NA	NA	NA	NA	VOCs	Kd-1 (2 ft), DPT
	3	Soil	3	04/12/05	72.5	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/12/05	147	NA	NA	NA	NA	VOCs	Kd-1 (4 ft), DPT
	5	Soil	5	04/12/05	NM	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	35.8	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	31.2	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	24.3	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/12/05	8.8	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	7.2	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	6.1	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/12/05	11	NA	NA	NA	NA	None	DPT

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
Kd-2	0-1	Soil	0-1	04/12/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	25.6	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/12/05	5.4	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/12/05	31.2	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/12/05	11.6	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	13.7	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	9.6	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	50.6	NA	NA	NA	NA	VOCs	Kd-2 (8 ft), DPT
	9	Soil	9	04/12/05	3.3	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	4.9	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	2.8	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/12/05	0.3	NA	NA	NA	NA	None	DPT
Kd-3	0-1	Soil	0-1	04/12/05	34.8	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	70.2	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/12/05	94.2	NA	NA	NA	NA	VOCs	Kd-3 (3 ft), DPT
	4	Soil	4	04/12/05	146	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-3 (4 ft), DPT
	5	Soil	5	04/12/05	5.7	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	22.5	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	7.9	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	3.8	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/12/05	2.5	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	6.3	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	3.5	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/12/05	0.1	NA	NA	NA	NA	None	DPT
Kd-4	0-1	Soil	0-1	04/12/05	355	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	487	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-4 (2 ft), DPT
	3	Soil	3	04/12/05	322	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/12/05	13.4	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/12/05	3.3	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	1.3	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	1.6	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	6	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/12/05	4.3	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	2	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	100	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-4 (11 ft), DPT
	12	Soil	12	04/12/05	6.1	NA	NA	NA	NA	None	DPT
Kd-5	0-1	Soil	0-1	04/12/05	8.4	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/12/05	30.6	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/12/05	60.5	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-5 (3 ft), DPT
	4	Soil	4	04/12/05	6.7	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/12/05	0.9	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/12/05	3	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/12/05	9.3	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/12/05	2.8	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/12/05	9.3	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/12/05	16	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/12/05	17.5	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/12/05	13.6	NA	NA	NA	NA	None	DPT
Kd-6	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	0	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	0.3	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	0	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	0	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	0.3	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	0	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	NR	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	NR	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/13/05	NR	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	NR	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	NR	NA	NA	NA	NA	None	DPT
Kd-7	0	Soil	0	04/13/05	68.1	NA	NA	NA	NA	None	DPT
	1	Soil	1	04/13/05	210	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	57	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	16.6	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-7 (3 ft), DPT
	4	Soil	4	04/13/05	9.8	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	20.9	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	3.8	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	1.7	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	1.6	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	1.9	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/13/05	6.3	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	0.7	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	3.4	NA	NA	NA	NA	None	DPT
Kd-8	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	260	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	10.1	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	0.3	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	2.6	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	2.5	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	1.9	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	1.7	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	363	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-8 (9 ft), DPT
	10	Soil	10	04/13/05	8.3	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	6.8	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	20.2	NA	NA	NA	NA	None	DPT
	13	Soil	13	04/13/05	NR	NA	NA	NA	NA	None	DPT
	14	Soil	14	04/13/05	41.9	NA	NA	NA	NA	None	DPT
	15	Soil	15	04/13/05	11.8	NA	NA	NA	NA	None	DPT
	16	Soil	16	04/13/05	17.9	NA	NA	NA	NA	None	DPT
Kd-9	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	NR	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	33.3	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	8.4	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	15.9	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	18.6	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	69.2	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-9 (7 ft), DPT
	8	Soil	8	04/13/05	27.2	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	420	NA	NA	NA	NA	VOCs	Kd-9 (9 ft), DPT
	10	Soil	10	04/13/05	46.9	NA	NA	NA	NA	VOCs	Kd-9 (10 ft), DPT
	11	Soil	11	04/13/05	39.6	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	13.8	NA	NA	NA	NA	None	DPT

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
Kd-10	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	NR	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	438	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-10 (3 ft), DPT
	4	Soil	4	04/13/05	245	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	193	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	96.1	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	40	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	23.7	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	711	NA	NA	NA	NA	VOCs	Kd-10 (9 ft), DPT
	10	Soil	10	04/13/05	474	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	97.6	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	16	NA	NA	NA	NA	None	DPT
	13	Soil	13	04/13/05	863	NA	NA	NA	NA	VOCs	Kd-10 (13 ft), DPT
	14	Soil	14	04/13/05	243	NA	NA	NA	NA	None	DPT
	15	Soil	15	04/13/05	3006	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-10 (15 ft), DPT
	16	Soil	16	04/13/05	119	NA	NA	NA	NA	None	DPT
	17	Soil	17	04/13/05	2012	NA	NA	NA	NA	VOCs	Kd-10 (17 ft), DPT
	18	Soil	18	04/13/05	1375	NA	NA	NA	NA	None	DPT
	19	Soil	19	04/13/05	511	NA	NA	NA	NA	None	DPT
	20	Soil	20	04/13/05	126	NA	NA	NA	NA	None	DPT
Kd-11	0-1	Soil	0-1	04/13/05	0	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	2.7	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	25.7	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	60.1	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-11 (4 ft), DPT
	5	Soil	5	04/13/05	19.3	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	54.8	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-11 (6 ft), DPT
	7	Soil	7	04/13/05	25.4	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	38.3	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	NR	NA	NA	NA	NA	None	DPT
	10	Soil	10	04/13/05	2334	NA	NA	NA	NA	None	DPT
	11	Soil	11	04/13/05	29.4	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	20.8	NA	NA	NA	NA	None	DPT
Kd-12	0-1	Soil	0-1	04/13/05	NR	NA	NA	NA	NA	None	DPT
	2	Soil	2	04/13/05	NR	NA	NA	NA	NA	None	DPT
	3	Soil	3	04/13/05	17.1	NA	NA	NA	NA	None	DPT
	4	Soil	4	04/13/05	15.9	NA	NA	NA	NA	None	DPT
	5	Soil	5	04/13/05	6.5	NA	NA	NA	NA	None	DPT
	6	Soil	6	04/13/05	30.9	NA	NA	NA	NA	None	DPT
	7	Soil	7	04/13/05	9.7	NA	NA	NA	NA	None	DPT
	8	Soil	8	04/13/05	18.5	NA	NA	NA	NA	None	DPT
	9	Soil	9	04/13/05	667	NA	NA	NA	NA	VOCs	Kd-12 (9 ft), DPT
	10	Soil	10	04/13/05	466	NA	NA	NA	NA	VOCs, SPLP VOCs	Kd-12 (10 ft), DPT
	11	Soil	11	04/13/05	NR	NA	NA	NA	NA	None	DPT
	12	Soil	12	04/13/05	NR	NA	NA	NA	NA	None	DPT
MW-1	MW-1	Groundwater	69.4-74.4	02/25/00	NA	6.99	0.482	15.8	10	VOCs	Purged and sampled with bailer
	MW-1	Groundwater	69.4-74.4	10/02/00	NA	6.72	0.231	18.4	10	VOCs	Purged and sampled with bailer
	MW-1	Groundwater	69.4-74.4	02/19/03	NA	6.28	0.127	20.1	NM	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-1(MW-1A)	Groundwater	72.2-73.7*	05/05/04	NA	6.10	0.124	21.3	4.72	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-1(MW-1A)	Groundwater	72.2-73.7*	10/12-13/04	NA	5.68	0.110	22.5	9.6	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-1(MW-1A)	Groundwater	72.2-73.7*	04/07/08	NA	3.76	0.00	18.5	NM	VOCs	VOCs sampled with PDB.
	MW-1	Groundwater	72.2-73.7	06/01/10	NA	3.89	0.01	25.0	0.4	VOCs	VOCs sampled with PDB.
MW-2	MW-2	Groundwater	53-58	02/25/00	NA	NM	NM	NM	NM	VOCs	Purged and sampled with bailer
	MW-2	Groundwater	53-58	10/03/00	NA	7.12	0.219	22.3	100	VOCs	Purged and sampled with bailer
	MW-2	Groundwater	53-58	02/19/03	NA	7.20	0.210	21.1	1	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-2(MW-2A)	Groundwater	55.4-56.9*	05/05/04	NA	NM	NM	NM	0.05	VOCs	VOCs sampled with PDB.
	MW-2(MW-2A)	Groundwater	55.4-56.9*	10/12/04	NA	5.10	0.01	24.4	0.28	VOCs	VOCs sampled with PDB.
	MW-2(MW-2A)	Groundwater	55.4-56.9*	04/07/08	NA	4.0	0.00	20.3	NM	VOCs	VOCs sampled with PDB.
	MW-2(MW-2A)	Groundwater	55.4-56.9*	06/01/10	NS	4.3	0.03	27.7	1.45	VOCs	VOCs sampled with PDB.
MW-3	MW-3	Groundwater	55-60	02/25/00	NA	NM	NM	NM	NM	VOCs	Purged and sampled with bailer
	MW-3	Groundwater	55-60	10/03/00	NA	6.15	0.155	25.9	6	VOCs	Purged and sampled with bailer
	MW-3	Groundwater	55-60	02/18/03	NA	5.42	0.103	24.6	4	VOCs	Purged with submersible pump, sampled with bailer
	MW-3(MW-3A)	Groundwater	57.5-59*	05/06/04	NA	5.70	0.122	25.1	1.79	VOCs, Site Total and Dissolved metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-3(MW-3A)	Groundwater	57.5-59*	10/12-13/04	NA	5.50	0.100	27.0	0.5	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-3(MW-3A)	Groundwater	57.5-59*	04/08/08	NA	3.76	0.00	19.5	NM	VOCs	VOCs sampled with PDB.
	MW-3(MW-3A)	Groundwater	57.5-59*	06/02/10	NA	4.39	0.01	24.9	0.48	VOCs	VOCs sampled with PDB.
	MW-3	Groundwater	57.5-59*	06/03/10	NA	5.31	0.08	23.4	0.13	VOCs	VOCs LFLS with bladder pump
MW-4	MW-4	Groundwater	53-58	02/25/00	NA	NM	NM	NM	NM	VOCs	Purged and sampled with bailer
	MW-4	Groundwater	53-58	10/03/00	NA	7.31	0.306	25.9	102	VOCs	Purged and sampled with bailer
	MW-4	Groundwater	53-58	02/18/03	NA	7.03	0.262	25.2	3	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-4(MW-4A)	Groundwater	'55.5-57*	05/06/04	NA	7.05	0.273	26.8	2.93	VOCs, Site Total and Dissolved metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-4(MW-4A)	Groundwater	'55.5-57*	10/12-13/04	NA	7.15	0.260	26.1	11.1	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-4(MW-4A)	Groundwater	'55.5-57*	04/08/08	NA	3.87	0.00	19.8	NM	VOCs	VOCs sampled with PDB.
	MW-4(MW-4A)	Groundwater	'55.5-57*	06/02/10	NA	4.33	0.00	26.4	0.86	VOCs	VOCs sampled with PDB.
MW-5	MW-5	Groundwater	49-54	02/25/00	NA	7.44	0.285	18.1	10	VOCs	Purged and sampled with bailer
	MW-5	Groundwater	49-54	10/03/00	NA	6.68	0.227	23.7	13	VOCs	Purged and sampled with bailer
	MW-5	Groundwater	49-54	02/18/03	NA	6.33	0.161	22.2	0	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-5	Groundwater	49-54	06/12/03	NA	7.10	0.161	23.1	329	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-5	Groundwater	49-54	07/08/03	NA	7.18	0.457	22.7	13	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-5(MW-5A)	Groundwater	51.4-52.9	05/07/04	NA	6.17	0.155	22	1.9	VOCs, Site Total and Dissolved metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-5(MW-5A)	Groundwater	51.4-52.9	10/12-13/04	NA	5.78	0.120	24.6	0	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-5(MW-5A)	Groundwater	51.4-52.9	04/07/08	NA	4.10	0.00	20.1	NM	VOCs	VOCs sampled with PDB.
	MW-5(MW-5A)	Groundwater	51.4-52.9	06/01/10	NA	3.88	0.00	26.5	2.23	VOCs	VOCs sampled with PDB.
	MW-5	Groundwater	51.4-52.9	06/02/10	NA	5.64	0.10	21.8	1.11	VOCs	VOCs LFLS with bladder pump

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
MW-6	MW-6	Groundwater	43-48	02/25/00	NA	NM	NM	NM	NM	VOCs	Purged and sampled with bailer
	MW-6	Groundwater	43-48	10/03/00	NA	6.70	0.214	21.4	13	VOCs	Purged and sampled with bailer
	MW-6	Groundwater	43-48	02/18/03	NA	6.79	0.253	24.9	2	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-6	Groundwater	43-48	04/08/08	NA	3.70	0.00	19.6	NM	VOCs	VOCs sampled with PDB.
	MW-6	Groundwater	43-48	06/01/10	NA	4.67	0.01	28.7	1.28	VOCs	VOCs sampled with PDB.
MW-7	MW-7	Groundwater	46-56	02/25/03	NA	6.65	0.353	23.1	2	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-7	Groundwater	46-56	04/08/08	NA	3.32	0.03	17.3	NM	VOCs	VOCs sampled with PDB.
	MW-7	Groundwater	46-56	06/01/10	NA	4.11	0.01	27.6	0.82	VOCs	VOCs sampled with PDB.
MW-8	MW-8	Groundwater	60-70	02/24/03	NA	7.25	0.249	23.4	4	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-8 (MW-8A)	Groundwater	'60.6-62.1	05/07/04	NA	4.73	0.045	22.2	0.18	VOCs	VOCs sampled with PDB.
	MW-8 (MW-8B)	Groundwater	65.6-67.1	05/07/04	NA	5.04	0.018	21.3	0.01	VOCs	VOCs sampled with PDB.
	MW-8 (MW-8A)	Groundwater	'60.6-62.1	10/12/04	NA	4.86	0.0	23.9	0.29	VOCs	VOCs sampled with PDB.
	MW-8 (MW-8A)	Groundwater	60.6-62.1	04/07/08	NA	4.15	0.0	19.2	NM	VOCs	VOCs sampled with PDB.
	MW-8 (MW-8A)	Groundwater	60.6-62.2	06/01/10	NA	4.46	0.0	25.6	1.38	VOCs	VOCs sampled with PDB.
MW-9	MW-9	Groundwater	55-65	02/24/03	NA	7.23	0.264	23.8	1	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-9	Groundwater	55-65	04/07/08	NA	3.81	0.00	18.8	NM	VOCs	VOCs sampled with PDB.
	MW-9	Groundwater	55-65	06/01/10	NA	4.06	0.03	26.0	0.92	VOCs	VOCs sampled with PDB.
MW-10	MW-10	Groundwater	35-45	02/25/03	NA	6.98	0.254	24.5	3	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-10 (MW-10A)	Groundwater	38.6-40.1	05/06/04	NA	6.50	0.089	25.0	0.25	VOCs, Total and Dissolved Metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-10 (MW-10B)	Groundwater	43.6-45.1	05/06/04	NA	5.59	0.018	23.1	0.56	VOCs	VOCs sampled with PDB.
	MW-10 (MW-10A)	Groundwater	38.6-40.1	10/12-13/04	NA	6.26	0.130	24.3	0	VOCs, Total and Dissolved Metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-10 (MW-10A)	Groundwater	38.6-40.1	04/08/08	NA	3.80	0.00	1.0	NM	VOCs	VOCs sampled with PDB.
	MW-10 (MW-10A)	Groundwater	38.6-40.1	06/02/10	NA	4.49	0.00	24.2	0.82	VOCs	VOCs sampled with PDB.
	MW-10	Groundwater	38.6-40.1	06/03/10	NA	5.62	0.06	20.5	0.54	VOCs	VOCs LFLS with bladder pump
MW-11	MW-11	Groundwater	66-76	02/25/03	NA	7.34	0.212	23.4	4	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-11	Groundwater	66-76	04/07/08	NA	4.29	0.00	18.5	NM	VOCs	VOCs sampled with PDB.
	MW-11	Groundwater	66-76	06/02/10	NA	4.77	0.00	26.2	1.04	VOCs	VOCs sampled with PDB.
MW-12	MW-12	Groundwater	60.5-70.5	02/25/03	NA	7.62	0.184	21.8	1	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-12	Groundwater	60.5-70.5	04/07/08	NA	3.67	0.01	19.5	NM	VOCs	VOCs sampled with PDB.
	MW-12	Groundwater	60.5-70.5	06/02/10	NA	4.64	0.00	25.6	0.92	VOCs	VOCs sampled with PDB.
MW-13	MW-13	Groundwater	12-22	02/26/03	NA	5.93	0.123	16.7	1	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-13	Groundwater	40534.0	04/07/08	NA	3.87	0.00	18.4	NM	VOCs	VOCs sampled with PDB.
	MW-13	Groundwater	40534.0	06/02/10	NA	4.13	0.00	25.9	1.18	VOCs	VOCs sampled with PDB.
MW-14	MW-14	Groundwater	71.2-81.2	04/03/03	NA	6.91	0.343	22.3	721	VOCs	Purged with submersible pump LFLS, sampled with bailer
	DUP-400/MW-14	Groundwater	71.2-81.2	04/03/03	NA	6.91	0.343	22.3	721	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 PRE	Groundwater	71.2-81.2	04/21/03	NA	6.29	0.334	20.4	7	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 POST	Groundwater	71.2-81.2	04/21/03	NA	7.57	0.339	22.2	156	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 LONG	Groundwater	71.2-81.2	04/21/03	NA	7.59	0.359	21.5	5	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 7:10	Groundwater	71.2-81.2	06/13/03	NA	7.42	0.298	21.3	71	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 9:30	Groundwater	71.2-81.2	06/13/03	NA	7.56	0.291	21.0	12	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14 12:15	Groundwater	71.2-81.2	06/13/03	NA	7.39	0.290	21.8	17	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-14	Groundwater	71.2-81.2	07/08/03	NA	7.23	0.408	20.6	168	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-14 (MW-14A)	Groundwater	74.5-76	5/5/2004	NA	NM	NM	NM	7.35	VOCs	VOCs sampled with PDB.
	MW-14 (MW-14B)	Groundwater	79.5-81	5/5/2004	NA	NM	NM	NM	0.43	VOCs	VOCs sampled with PDB.
	MW-14 (MW-14C)	Groundwater	84.5-86	5/5/2004	NA	7.40	0.034	21.1	0.54	VOCs	VOCs sampled with PDB.
	MW-14 (MW-14A)	Groundwater	74.5-76	10/12/2004	NA	4.55	0.00	26.2	0	VOCs	VOCs sampled with PDB.
	MW-14 (MW-14A)	Groundwater	74.5-76	4/7/2008	NA	3.97	0.00	18.7	NM	VOCs	VOCs sampled with PDB.
	MW-14 (MW-14A)	Groundwater	74.5-76	6/2/2010	NA	4.79	0.00	23.5	0.92	VOCs	VOCs sampled with PDB.
	MW-14	Groundwater	74.5-76	6/3/2010	NA	7.17	0.46	20.2	0	VOCs	VOCs LFLS with bladder pump
MW-15	MW-15	Groundwater	6.7-11.7	04/03/03	NA	6.46	0.390	17.3	2	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-15	Groundwater	6.7-11.7	04/07/08	NA	3.85	0.00	19.4	NM	VOCs	VOCs sampled with PDB.
	MW-15	Groundwater	6.7-11.7	06/02/10	NA	4.40	0.00	26.8	1.66	VOCs	VOCs sampled with PDB.
MW-16	MW-16	Groundwater	6.7-11.7	04/04/03	NA	5.50	0.062	16.8	0	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-16	Groundwater	6.7-11.7	04/07/08	NA	3.87	0.0	20.3	NM	VOCs	VOCs sampled with PDB.
	MW-16	Groundwater	6.7-11.7	06/02/10	NA	4.22	0.0	21.8	1.11	VOCs	VOCs sampled with PDB.
MW-17	MW-17	Groundwater	33-47.5	05/14/03	NA	6.99	4.550	69.1	2.06	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-17	Groundwater	33-47.5	07/08/03	NA	7.00	0.537	18.8	36	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-17 (MW-17A)	Groundwater	36.4-37.9	05/04/04	NA	4.67	0.046	19.7	1.1	VOCs	VOCs sampled with PDB.
	MW-17 (MW-17B)	Groundwater	41.4-42.9	05/04/04	NA	4.66	0.250	20.3	1.4	VOCs	VOCs sampled with PDB.
	MW-17 (MW-17C)	Groundwater	46.4-47.9	05/04/04	NA	4.57	0.08	19.2	0.65	VOCs	VOCs sampled with PDB.
	MW-17 (MW-17A)	Groundwater	36.4-37.9	10/12/04	NA	4.46	0.00	23.4	0	VOCs	VOCs sampled with PDB.
	MW-17 (MW-17A)	Groundwater	36.4-37.9	04/07/08	NA	3.89	0.00	20.3	NM	VOCs	VOCs sampled with PDB.
	MW-17 (MW-17A)	Groundwater	36.4-37.9	06/02/10	NA	4.43	0.00	25.5	1.58	VOCs	VOCs sampled with PDB.
MW-18	MW-18	Groundwater	27-42	05/14/03	NA	6.99	396.0	64.3	8.83	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-18	Groundwater	27-42	07/08/03	NA	6.62	0.497	17.3	45	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-18 (MW-18A)	Groundwater	31.1-32.6	05/04/04	NA	4.65	0.004	18.1	1.1	VOCs	VOCs sampled with PDB.
	MW-18 (MW-18B)	Groundwater	36.1-37.6	05/04/04	NA	4.68	0.002	19.0	0.06	VOCs	VOCs sampled with PDB.
	MW-18 (MW-18C)	Groundwater	41.1-42.6	05/04/04	NA	NM	NM	NM	0.5	VOCs	VOCs sampled with PDB.
	MW-18 (MW-18A)	Groundwater	31.1-32.6	10/12/04	NA	4.53	0.00	24.1	0	VOCs	VOCs sampled with PDB.
	MW-18 (MW-18A)	Groundwater	31.1-32.6	04/07/08	NA	3.81	0.00	21.6	NM	VOCs	VOCs sampled with PDB.
	MW-18 (MW-18A)	Groundwater	31.1-32.7	06/02/10	NA	4.33	0.01	22.8	1.11	VOCs	VOCs sampled with PDB.

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
MW-19	MW-19	Groundwater	36.2-46.2	05/28/03	NA	7.81	4.910	28.2	0.43	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-19	Groundwater	36.2-46.2	06/13/03	NA	8.44	0.159	20.7	999	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-19	Groundwater	36.2-46.2	07/08/03	NA	7.29	0.243	20.8	207	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-19 (MW-19A)	Groundwater	39.9-41.4	05/05/04	NA	7.10	0.240	21.4	3.55	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer. No dissolved metals; preserved in field prior to filtering.
	MW-19 (MW-19B)	Groundwater	44.9-46.4	05/05/04	NA	7.10	0.240	21.4	3.55	VOCs	VOCs sampled with PDB.
	MW-19 (MW-19A)	Groundwater	39.9-41.4	10/13/04	NA	6.90	0.240	26.1	1.3	VOCs, Site Total metals	VOCs sampled with PDB. Metals: Purged with submersible pump LFLS, sampled with bailer
	MW-19 (MW-19A)	Groundwater	39.9-41.4	04/08/08	NA	3.33	0.19	18.9	NM	VOCs	VOCs sampled with PDB.
	MW-19 (MW-19A)	Groundwater	39.9-41.4	06/02/10	NA	4.57	0.03	24.3	0.8	VOCs	VOCs sampled with PDB.
	MW-19	Groundwater	39.9-41.4	06/03/10	NA	6.25	0.16	20.4	0.1	VOCs	VOCs LFLS with bladder pump
MW-20	MW-20	Groundwater	91.7-106.7	05/28/03	NA	7.41	7.560	25.2	29.1	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-20 12:10	Groundwater	91.7-106.7	06/12/03	NA	6.77	0.331	24.3	13	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-20 15:00	Groundwater	91.7-106.7	06/12/03	NA	7.16	0.316	23.8	31	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-20 17:30	Groundwater	91.7-106.7	06/12/03	NA	7.09	0.320	23.2	14	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-20	Groundwater	91.7-106.7	07/08/03	NA	7.18	0.457	22.7	13	Ca Mg Na K Chloride Sulfate and Alkalinity	Purged with submersible pump LFLS, sampled with bailer
	MW-20 (MW-20A)	Groundwater	92.6-94.1	05/06/04	NA	4.74	0.063	20.5	0.04	VOCs	VOCs sampled with PDB
	MW-20 (MW-20B)	Groundwater	97.6-99.1	05/06/04	NA	4.60	0.041	20.1	0.04	VOCs	VOCs sampled with PDB
	MW-20 (MW-20C)	Groundwater	102.6-104.1	05/06/04	NA	4.82	0.023	20.0	0.23	VOCs	VOCs sampled with PDB
	MW-20 (MW-20A)	Groundwater	92.6-94.1	10/28/04	NA	7.12	0.330	23.7	1.8	VOCs	Purged with submersible pump LFLS, sampled with bailer (PDB punctured on removal and could not be sampled)
	MW-20 (MW-20A)	Groundwater	92.6-94.1	04/08/08	NA	3.79	0.00	18.0	NM	VOCs	VOCs sampled with PDB.
	MW-20 (MW-20A)	Groundwater	92.6-94.2	06/01/10	NA	4.59	0.03	27.6	1.69	VOCs	VOCs sampled with PDB.
	MW-20	Groundwater	92.6-94.3	06/02/10	NA	6.98	0.47	21.9	1.41	VOCs	VOCs LFLS with bladder pump
MW-21	MW-21	Groundwater	89.7-104.7	09/10/03	NA	7.15	0.356	23.4	3.4	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-21 (MW-21A)	Groundwater	90.7-92.2	05/07/04	NA	5.15	0.039	20.9	0	VOCs	VOCs sampled with PDB
	MW-21 (MW-21B)	Groundwater	95.7-97.2	05/07/04	NA	4.49	0.034	20.7	0	VOCs	VOCs sampled with PDB
	MW-21 (MW-21C)	Groundwater	100.7-102.2	05/07/04	NA	4.65	0.022	20.5	0	VOCs	VOCs sampled with PDB
	MW-21 (MW-21A)	Groundwater	90.7-92.2	10/12/04	NA	4.30	0.00	24.9	0.87	VOCs	VOCs sampled with PDB
	MW-21 (MW-21A)	Groundwater	90.7-92.2	04/08/08	NA	4.47	0.00	17.5	NM	VOCs	VOCs sampled with PDB
	MW-21 (MW-21A)	Groundwater	90.7-92.3	06/01/10	NA	4.28	0.03	25.5	2.0	VOCs	VOCs sampled with PDB
MW-22	MW-22	Groundwater	98.9-113.9	09/10/03	NA	7.23	0.346	21.2	8.5	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-22 (MW-22A)	Groundwater	100-101.5	05/05/04	NA	NM	NM	NM	0.32	VOCs	VOCs sampled with PDB
	MW-22 (MW-22B)	Groundwater	105-106.5	05/05/04	NA	7.90	0.012	20.9	0.21	VOCs	VOCs sampled with PDB
	MW-22 (MW-22C)	Groundwater	110-111.5	05/05/04	NA	6.32	0.012	21.6	0.14	VOCs	VOCs sampled with PDB
	MW-22 (MW-22A)	Groundwater	100-101.5	10/12/04	NA	5.43	0.010	23.5	0.1	VOCs	VOCs sampled with PDB
	MW-22 (MW-22A)	Groundwater	100-101.5	04/08/08	NA	3.85	0.00	19.1	NM	VOCs	VOCs sampled with PDB.
	MW-22 (MW-22A)	Groundwater	100-101.6	06/01/10	NA	5.34	0.01	25.8	0.4	VOCs	VOCs sampled with PDB.
MW-23	MW-23	Groundwater	90-106	09/11/03	NA	6.95	0.379	20.8	6.8	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-23(MW-23A)	Groundwater	92.1-93.6	05/05/04	NA	NM	NM	NM	0.36	VOCs	VOCs sampled with PDB
	MW-23(MW-23B)	Groundwater	97.1-98.6	05/05/04	NA	6.70	0.042	25.0	0.36	VOCs	VOCs sampled with PDB
	MW-23(MW-23C)	Groundwater	102-103.5	05/05/04	NA	NM	NM	NM	0	VOCs	VOCs sampled with PDB
	MW-23(MW-23A)	Groundwater	92.1-93.6	10/12/04	NA	6.18	0.010	23.7	0.22	VOCs	VOCs sampled with PDB
	MW-23(MW-23A)	Groundwater	92.1-93.6	04/07/08	NA	4.74	0.0	19.6	NM	VOCs	VOCs sampled with PDB
	MW-23(MW-23A)	Groundwater	92.1-93.7	06/01/10	NA	4.52	0.03	26.6	1.22	VOCs	VOCs sampled with PDB
MW-24	MW-24	Groundwater	136.9-146.7	10/12/04	NA	NM	NM	NM	NM	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-24	Groundwater	136.9-146.7	10/28/04	NA	7.12	0.300	22.8	0.25	VOCs	Purged with submersible pump LFLS, sampled with bailer
	MW-24	Groundwater	136.9-146.7	04/07/08	NA	4.08	0.00	19.3	NM	VOCs	VOCs sampled with PDB
	MW-24	Groundwater	136.9-146.8	06/01/10	NA	4.32	0.00	26.5	1.33	VOCs	VOCs sampled with PDB
MW-25	MW-25	Groundwater	91.8-106.8'	06/24/10	NA	7.17	0.44	22.7	8.7	VOCs	VOCs LFLS with bladder pump
MW-26	MW-26	Groundwater	1.0-6.0	10/20/10	NA	6.34	0.26	19.1	3.74	VOCs	VOCs LFLS with perstaltic pump
MW-27	MW-27	Groundwater	2.2-7.2	10/20/10	NA	5.44	0.07	19.0	4.8	VOCs	VOCs LFLS with perstaltic pump
MW-28	MW-28	Groundwater	2.1-7.1	10/20/10	NA	5.68	0.10	18.7	3.42	VOCs	VOCs LFLS with perstaltic pump
Manson Branch	Manson Branch #1	Surface Water	surface	05/03/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Seep	Manson Branch #2	Surface Water	surface	05/03/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	11/03/03	NA	4.36	0.089	17.4	3	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	01/15/03	NA	5.40	0.082	10.2	0	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	03/24/04	NA	5.51	0.030	15.2	4.6	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	06/23/04	NA	4.96	0.043	20.2	161	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	08/31/04	NA	3.52	0.060	21.4	12.6	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	11/17/04	NA	4.29	0.040	16.9	3.14	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	02/27/08	NA	5.46	0.00	51.5	5	VOCs	Direct filling of container
	Manson Branch #2	Surface Water	surface	06/02/10	NA	4.57	0.03	21.0	12.8	VOCs	Direct filling of container
Manson Branch	Manson Branch #3	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #4	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #5	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #6	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #7	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #8	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #9	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #10	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #11	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Manson Branch	Manson Branch #12	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Seep #1	Seep West #1	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Seep #2	Seep #2	Surface Water	surface	06/07/00	NA	5.70	0.070	17.0	NM	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	11/03/00	NA	5.46	0.055	15.2	0	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	01/15/03	NA	3.89	0.247	7.4	720	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	03/24/04	NA	7.72	0.000	17.7	39	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	06/23/04	NA	5.76	0.061	24.0	102	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	08/30/04	NA	4.82	0.060	27.3	160	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	11/17/04	NA	5.33	0.010	7.6	199	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	02/27/08	NA	5.57	0.00	46.2	0.23	VOCs	Direct filling of container
	Seep #2	Surface Water	surface	04/21/10	NA	6.15	0.02	17.0	13.5	VOCs	Direct filling of container

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
Seep #3	Seep West #3	Surface Water	surface	06/07/00	NA	NM	NM	NM	NM	VOCs	Direct filling of container
Seep A	Seep A	Surface Water	surface	01/15/03	NA	4.71	0.076	7.9	52	VOCs	Direct filling of container
Seep A	Seep A	Surface Water	surface	03/24/04	NA	NA	NA	NA	NA	NA	Not sampled-seep was dry
	Seep A	Surface Water	surface	06/23/04	NA	6.15	0.030	24.0	170	VOCs	Direct filling of container
	Seep A	Surface Water	surface	08/31/04	NA	4.02	0.010	25.6	31.4	VOCs	Direct filling of container
	Seep A	Surface Water	surface	11/17/04	NA	NA	NA	NA	NA	NA	Not sampled-seep was dry
	Seep A	Surface Water	surface	2/26/208	NA	5.9	0.00	56.9	18.4	VOCs	Direct filling of container
Seep B	Seep B	Surface Water	surface	01/15/03	NA	5.43	0.083	7.1	67	VOCs	Direct filling of container
	Seep B	Surface Water	surface	03/24/04	NA	7.73	0.070	14.9	NM	VOCs	Direct filling of container
	Seep B	Surface Water	surface	06/23/04	NA	5.08	0.085	24.3	107	VOCs	Direct filling of container
	Seep B	Surface Water	surface	08/30/04	NA	4.30	0.070	26.6	12	VOCs	Direct filling of container
	Seep B	Surface Water	surface	11/17/04	NA	5.84	0.040	11.8	5.61	VOCs	Direct filling of container
	Seep B	Surface Water	surface	02/27/08	NA	4.37	0.00	43.2	0.24	VOCs	Direct filling of container
Seep C	Seep C	Surface Water	surface	01/15/03	NA	5.01	0.076	15.8	286	VOCs	Direct filling of container
	Seep C	Surface Water	surface	03/24/04	NA	7.74	0.020	15.6	0.87	VOCs	Direct filling of container
	Seep C	Surface Water	surface	06/23/04	NA	5.31	0.020	23.9	169	VOCs	Direct filling of container
	Seep C	Surface Water	surface	08/31/04	NA	3.35	0.050	20.9	1.13	VOCs	Direct filling of container
	Seep C	Surface Water	surface	11/17/04	NA	4.62	0.040	16.7	0	VOCs	Direct filling of container
	Seep C	Surface Water	surface	02/27/08	NA	4.76	0.040	61.1	0.66	VOCs	Direct filling of container
	Seep C	Surface Water	surface	04/21/10	NA	4.88	0.010	17.1	1.66	VOCs	Direct filling of container
	Seep C	Surface Water	surface	06/02/10	NA	4.20	0.010	18.4	3.94	VOCs	Direct filling of container
Seep D	Seep D	Surface Water	surface	01/15/03	NA	5.35	0.047	8.2	41	VOCs	Direct filling of container
	Seep D	Surface Water	surface	03/24/04	NA	6.42	0.020	15.2	66.4	VOCs	Direct filling of container
	Seep D	Surface Water	surface	06/23/04	NA	5.76	0.038	23.6	5	VOCs	Direct filling of container
	Seep D	Surface Water	surface	08/31/04	NA	4.91	0.040	25.3	21.4	VOCs	Direct filling of container
	Seep D	Surface Water	surface	11/17/04	NA	4.64	0.020	10.6	38.3	VOCs	Direct filling of container
	Seep D	Surface Water	surface	02/28/08	NA	5.71	0.00	51.2	3.14	VOCs	Direct filling of container
	Seep D	Surface Water	surface	04/21/10	NA	5.86	0.04	16.8	4.85	VOCs	Direct filling of container
Seep E	Seep E	Surface Water	surface	01/15/03	NA	5.54	0.043	9.8	6	VOCs	Direct filling of container
Seep F	Seep F	Surface Water	surface	01/15/03	NA	3.89	0.165	8.0	600	VOCs	Direct filling of container
Seep G	Seep G	Surface Water	surface	01/15/03	NA	5.25	0.063	8.1	999	VOCs	Direct filling of container
	Seep G	Surface Water	surface	03/24/04	NA	7.74	0.00	11.6	63.1	VOCs	Direct filling of container
	Seep G	Surface Water	surface	06/23/04	NA	5.08	0.072	24.6	835	VOCs	Direct filling of container
	Seep G	Surface Water	surface	08/31/04	NA	4.19	0.090	25.8	>999	VOCs	Direct filling of container
	Seep G	Surface Water	surface	11/17/04	NA	3.97	0.110	10.1	>999	VOCs	Direct filling of container
	Seep G	Surface Water	surface	02/26/08	NA	5.34	0.0	55.3	3.38	VOCs	Direct filling of container
	Seep G	Surface Water	surface	04/21/10	NA	5.34	0.04	17.3	55.7	VOCs	Direct filling of container
Seep H	Seep H	Surface Water	surface	01/15/03	NA	4.18	0.149	8.8	168	VOCs	Direct filling of container
	Seep H	Surface Water	surface	03/24/04	NA	7.75	0.020	11.6	>999	VOCs	Direct filling of container
	Seep H	Surface Water	surface	06/23/04	NA	5.67	0.041	25.0	15	VOCs	Direct filling of container
	Seep H	Surface Water	surface	08/31/04	NA	4.78	0.040	28.9	90.7	VOCs	Direct filling of container
	Seep H	Surface Water	surface	11/17/04	NA	4.50	0.040	10.8	0.4	VOCs	Direct filling of container
	Seep H	Surface Water	surface	02/26/08	NA	5.31	0.00	55.0	26.3	VOCs	Direct filling of container
	Seep H	Surface Water	surface	04/21/10	NA	5.58	0.06	16.0	24	VOCs	Direct filling of container
	Seep H	Surface Water	surface	06/02/10	NA	4.42	0.01	21.7	17	VOCs	Direct filling of container
Seep I	Seep I	Surface Water	surface	01/15/03	NA	4.87	0.085	7.8	26	VOCs	Direct filling of container
	Seep I	Surface Water	surface	03/24/04	NA	5.10	0.020	12.9	NM	VOCs	Direct filling of container
	Seep I	Surface Water	surface	06/23/04	NA	3.60	0.178	25.3	4	VOCs	Direct filling of container
	Seep I	Surface Water	surface	08/31/04	NA	NA	NA	NA	NA	NA	Not sampled-seep was dry
	Seep I	Surface Water	surface	11/17/04	NA	3.34	0.080	7.3	92.5	VOCs	Direct filling of container
	Seep I	Surface Water	surface	02/27/08	NA	5.01	0.00	45.5	6.44	VOCs	Direct filling of container
	Seep I	Surface Water	surface	04/22/10	NA	5.28	0.04	16.3	6.44	VOCs	Direct filling of container
Seep J	Seep J	Surface Water	surface	05/14/03	NA	NM	NM	NM	NM	VOCs	Direct filling of container
	Seep J	Surface Water	surface	03/24/04	NA	4.83	0.110	18.1	NM	VOCs	Direct filling of container
	Seep J	Surface Water	surface	06/23/04	NA	5.85	0.048	24.6	128	VOCs	Direct filling of container
	Seep J	Surface Water	surface	08/31/04	NA	3.98	0.110	25.9	519	VOCs	Direct filling of container
	Seep J	Surface Water	surface	11/17/04	NA	5.88	0.067	13.5	0	VOCs	Direct filling of container
	Seep J	Surface Water	surface	02/26/08	NA	5.80	0.00	56.9	1.7	VOCs	Direct filling of container
	Seep J	Surface Water	surface	04/22/10	NA	5.58	0.04	15.0	20	VOCs	Direct filling of container
Seep K	Seep K	Surface Water	surface	03/24/04	NA	5.90	0.040	15.9	NM	VOCs	Direct filling of container
	Seep K	Surface Water	surface	06/24/04	NA	4.66	0.080	21.6	10	VOCs	Direct filling of container
	Seep K	Surface Water	surface	08/31/04	NA	4.63	0.090	25.8	694	VOCs	Direct filling of container
	Seep K	Surface Water	surface	11/17/04	NA	3.92	0.130	11.8	179	VOCs	Direct filling of container
	Seep K	Surface Water	surface	02/26/08	NA	5.73	0.020	55.4	2.81	VOCs	Direct filling of container
	Seep K	Surface Water	surface	04/22/10	NA	5.72	0.050	16.5	54.7	VOCs	Direct filling of container
Seep L	Seep L	Surface Water	surface	03/24/04	NA	7.73	0.050	17.9	31.5	VOCs	Direct filling of container
	Seep L	Surface Water	surface	06/24/04	NA	4.65	0.009	21.4	10	VOCs	Direct filling of container
	Seep L	Surface Water	surface	08/31/04	NA	4.52	0.110	25.5	2.44	VOCs	Direct filling of container
	Seep L	Surface Water	surface	11/17/04	NA	5.20	0.090	11.9	0	VOCs	Direct filling of container
	Seep L	Surface Water	surface	02/27/08	NA	5.66	0.020	49.5	3.76	VOCs	Direct filling of container
	Seep L	Surface Water	surface	06/03/10	NA	5.82	0.060	22.5	24.6	VOCs	Direct filling of container
Manson Branch	MB#14	Surface Water	surface	01/15/03	NA	5.33	0.199	6.9	111	VOCs	Direct filling of container
	MB#14	Surface Water	surface	02/26/08	NA	5.88	0.040	56.7	27.7	VOCs	Direct filling of container
	MB#14	Surface Water	surface	04/22/10	NA	6.26	0.040	14.7	11.5	VOCs	Direct filling of container
Manson Branch	MB#15	Surface Water	surface	01/15/03	NA	5.55	0.099	7.3	11	VOCs	Direct filling of container
	MB#15	Surface Water	surface	02/27/08	NA	6.00	0.00	50.0	8.91	VOCs	Direct filling of container
	MB#15	Surface Water	surface	04/21/10	NA	6.51	0.04	23.9	12.5	VOCs	Direct filling of container
Manson Branch	MB#16	Surface Water	surface	01/15/03	NA	5.44	0.116	8.9	96	VOCs	Direct filling of container
	MB#16	Surface Water	surface	02/27/08	NA	5.66	0.090	58.9	7.52	VOCs	Direct filling of container
	MB#16	Surface Water	surface	04/21/10	NA	6.45	0.050	23.1	13.2	VOCs	Direct filling of container
Manson Branch	Manson Br Geochem	Surface Water	surface	07/08/03	NA	6.46	0.076	26.6	26	Ca Mg Na K Chloride Sulfate and Alkalinity	Direct filling of container

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
QA/QC Samples											
Trip Blank		water	NA	10/17/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank		water	NA	10/09/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank		water	NA	10/11/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank		water	NA	10/12/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0I270200-004	water	NA	09/25/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J040215-007	water	NA	10/03/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0I280163-016	water	NA	09/27/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0I290294-005	water	NA	09/28/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J050260 015	water	NA	10/04/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J050260 016	water	NA	10/04/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J060184 009	water	NA	10/05/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J070191 007	water	NA	10/06/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J0110227 007	water	NA	10/09/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	AJ0130152 007	water	NA	10/11/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J140112 007	water	NA	10/12/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J250216 004	water	NA	10/24/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J270167 007	water	NA	10/26/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0K030150 003	water	NA	11/02/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J260183 005	water	NA	10/25/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0K010157	water	NA	10/31/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J180228 005	water	NA	10/17/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J200244 010	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J310185 006	water	NA	10/30/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0K020282 008	water	NA	11/01/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J210135 014	water	NA	10/20/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0J210135 018	water	NA	10/20/00	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A0K030150 003	water	NA	11/02/00	NA	NA	NA	NA	NA	VOCs	
Rinsate Blank Screen	A0I280163-007	water	NA	09/27/00	NA	NA	NA	NA	NA	VOCs	
Rinsate Blank Soil Sample	A0I280163-008	water	NA	09/27/00	NA	NA	NA	NA	NA	VOCs	
EQB		water	NA	10/18/00	NA	NA	NA	NA	NA	VOCs	
EQB	A0K020282-003	water	NA	11/01/00	NA	NA	NA	NA	NA	VOCs	
EQB	A0J050260-007	water	NA	10/03/00	NA	NA	NA	NA	NA	VOCs	
EQB	A0J260183-004	water	NA	10/25/00	NA	NA	NA	NA	NA	VOCs	
EQB	A0J200233-003	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD		water	NA	10/11/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J050260-001	water	NA	10/02/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J050260-012	water	NA	10/02/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J070191 006	water	NA	10/06/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J130152 001	water	NA	10/11/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J200233 001	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0J200233 009	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A0K020282 007	water	NA	11/01/00	NA	NA	NA	NA	NA	VOCs	
TB 22403	A3B260186-005	water	NA	02/25/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3A170214-016	water	NA	01/15/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3A230159-006	water	NA	01/22/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3A250143-007	water	NA	01/24/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank No. 4	A3B080116-004	water	NA	02/07/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank No. 5	A3B110124-002	water	NA	02/10/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank No. 6	A3B120151-004	water	NA	02/11/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3A240219-006	water	NA	01/23/03	NA	NA	NA	NA	NA	VOCs	
TB-21903	A3B200235-005	water	NA	02/19/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank-1	A3B200235-008	water	NA	02/18/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank-2	A3B200235-012	water	NA	02/18/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank No. 3	A3B070115-006	water	NA	02/06/03	NA	NA	NA	NA	NA	VOCs	
TB-22503	A3B270170-004	water	NA	02/25/03	NA	NA	NA	NA	NA	VOCs	
TB No. 2	A3B060250-006	water	NA	02/05/03	NA	NA	NA	NA	NA	VOCs	
TB No. 1	A3B050153-002	water	NA	02/04/03	NA	NA	NA	NA	NA	VOCs	
TB-22503	A3B270170-004	water	NA	02/25/03	NA	NA	NA	NA	NA	VOCs	
TB-21903	A3B200235-005	water	NA	02/19/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3D220129-004	water	NA	04/21/03	NA	NA	NA	NA	NA	VOCs	
TB-1	A3D050147-006	water	NA	04/03/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	174523-4	water	NA	04/21/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3C290136-011	water	NA	03/28/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3E300288-003	water	NA	05/28/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3F170168-009	water	NA	06/12/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3I110165-003	water	NA	09/10/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A3I120160-002	water	NA	09/11/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank 22608	A8B280189-017	water	NA	02/26/08	NA	NA	NA	NA	NA	VOCs	
Trip Blank 040708	A8D090165-001	water	NA	04/07/08	NA	NA	NA	NA	NA	VOCs	
Trip Blank	AOF260423-002	water	NA	06/24/10	NA	NA	NA	NA	NA	VOCs	
Trip Blank	AOF0435-025	water	NA	06/03/10	NA	NA	NA	NA	NA	VOCs	
Trip Blank	AOD230511-012	water	NA	04/22/10	NA	NA	NA	NA	NA	VOCs	
EQB-1	A3B200235-003	water	NA	02/19/03	NA	NA	NA	NA	NA	VOCs	
EQB-2	A3B200235-004	water	NA	02/19/03	NA	NA	NA	NA	NA	VOCs	
Rinsate No. 1	A3A240219-004	water	NA	01/22/03	NA	NA	NA	NA	NA	VOCs	
Rinsate Blank	A3B050153-003	water	NA	02/04/03	NA	NA	NA	NA	NA	VOCs	
Rinsate	A3C140142-007	water	NA	03/13/03	NA	NA	NA	NA	NA	VOCs	
EQB-1	A3D050147-005	water	NA	04/04/03	NA	NA	NA	NA	NA		
EQ Blank	A3290136	water	NA	03/28/03	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4E070331 009	water	NA	05/06/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4F250401 009	water	NA	06/23/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4I01 0168 013	water	NA	08/31/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4J130147-3	water	NA	10/12/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4J140208 016	water	NA	10/12/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A4J290161 002	water	NA	10/28/04	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A5D140167-003	water	NA	04/12/05	NA	NA	NA	NA	NA	VOCs	
Trip Blank	A5D150281-015	water	NA	04/13/05	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A170214-012	water	NA	01/15/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A220184-001	soil	NA	01/18/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A230159-002	soil	NA	01/21/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A250149-001	water	NA	01/24/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B080119-004	water	NA	02/07/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B100180-005	water	NA	02/08/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B110157-002	water	NA	02/10/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A24019-004	water	NA	01/23/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B200235-007	water	NA	02/18/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B070135-004	water	NA	02/06/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B250228-012	water	NA	02/24/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B060250-004	water	NA	02/05/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B050157-001	water	NA	02/04/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3C150104-005	soil	NA	03/14/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B260106-001	water	NA	02/25/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3C120208-003	water	NA	03/11/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A220106-007	water	NA	01/13/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A290102-011	soil	NA	01/27/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3B070115-001	soil	NA	02/05/03	NA	NA	NA	NA	NA	VOCs	
MS/MSD	A3A240132-004	water	NA	01/23/03	NA	NA	NA	NA	NA	VOCs	
Seep I MS/MSD	A8B280189-010	water	NA	02/27/08	NA	NA	NA	NA	NA	VOCs	
MW-11 MS/MSD	A8D090165-023	water	NA	02/27/08	NA	NA	NA	NA	NA	VOCs	

TABLE 3.0: SUMMARY OF SOIL AND GROUND-WATER SAMPLES COLLECTED

Boring Number	Sample Identification	Media	Sample Depth (ft., bgs)	Date Sampled	Field Screening Results (OVA, ppm)	Water Quality Parameters				Laboratory Analysis	Comments/Sample Method
						pH (S.U.)	SC (mS/ cm)	Temp (°C)	Turbd (NTU)		
MW-3DUP/MW-100	A0J050260-006	water	NA	10/03/00	NA	NA	NA	NA	NA	VOCs	
DUPE	A0K030150 003	water	NA	11/02/00	NA	NA	NA	NA	NA	VOCs	
DUPLICATE	A0J210135 013	water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
DUPE	A0K030150 003	water	NA	11/02/00	NA	NA	NA	NA	NA	VOCs	
SO-DUPE	A0K020282-006	Soil	NA	11/01/00	NA	NA	NA	NA	NA	VOCs	
DUP		water	NA	10/19/00	NA	NA	NA	NA	NA	VOCs	
Potable Water	A3A240219-005	water	NA	01/22/03	NA	NA	NA	NA	NA	VOCs	Sample of pot water used for decon
Seep ZZ	Duplicate of Seep A	water	NA	01/15/03	NA	NA	NA	NA	NA	VOCs	
Seep Z04	Duplicate of Seep C	water	NA	03/24/04	NA	NA	NA	NA	NA	VOCs	
Seep Z604	Duplicate of Seep C	water	NA	06/24/04	NA	NA	NA	NA	NA	VOCs	
Seep Z804	Duplicate of Seep C	water	NA	08/31/04	NA	NA	NA	NA	NA	VOCs	
SB-200	Duplicate of SB-112 (18-20)	soil	NA	01/23/03	NA	NA	NA	NA	NA	VOCs	SB-200 (10-11)
MW-300	Duplicate of MW-3	Groundwater	55'-60'	02/18/03	NA	NA	NA	NA	NA	VOCs	
MW-400	Duplicate of MW-14	Groundwater	71.2'-86.2'	04/03/03	NA	NA	NA	NA	NA		
DUP-300	Duplicate of MW-3	Groundwater	55-60	02/18/03	NA	5.42	0.103	24.6	4	VOCs	Purged with submersible pump LFLS, sampled with bailer
DUP-1	Duplicate of MW-22	Groundwater	98.9-113.9	09/10/03	NA	7.23	0.346	21.2	8.5	VOCs	Purged with submersible pump LFLS, sampled with bailer
MT-504	Duplicate of MW-5	Groundwater	49-54	05/07/04	NA					Site Total and Dissolved Metals	Purged with submersible pump LFLS, sampled with bailer
DUP-V504-A	Duplicate of MW-5	Groundwater	51.4-52.9	05/05/04	NA					VOCs	PDBs
DUP-V504-B	Duplicate of MW-5	Groundwater	51.4-52.9	05/05/04	NA					VOCs	PDBs
Dup 1012	Duplicate of MW-24	Groundwater	136.9-146.7	10/12/04	NA					VOCs	Purged with submersible pump LFLS, sampled with bailer
DUPGW1004	Duplicate of MW-5	Groundwater	51.4-52.9	10/13/04	NA					VOCs and Site Total Metals	Purged with submersible pump LFLW, sampled with bailer
Dup-01	Duplicate of Seep L	water	NA	02/27/08	NA	5.66	0.020	49.5	3.76	VOCs	
Dup-1	Duplicate of MW-20	Groundwater	92.6-94.1	04/07/08	NA	3.79	0.0	18.0	NM	VOCs	
Dup-01	Duplicate of Seep I	water	NA	04/22/10	NA	5.28	0.04	16.3	6.44	VOCs	

Notes:

°C= Degrees Celcius
Ca= Calcium analyzed by USEPA Method 6010B
Chloride and Sulfate analyzed by MCAWW 300.0A
K = Potassium analyzed by USEPA Method 6010B
NA = Not Applicable
Mg = Magnesium analyzed by USEPA Method 6010B
Na = Sodium analyzed by USEPA Method 6010B
NM = Not Measured
NTU - Nephelometric Turbidity Units
SC = Specific Conductance in MiliSiemens per Centimeter
LFLS = purge method low flow/low stress
PDB = passive diffusion bag sampler
NR = No soil recovery
Site Metals = Cadmium, Chromium, Copper, Nickel, Lead, Silver, and Zinc analyzed by USEPA method 6010B
* sample interval for passive diffusion bags are given in feet below top of well casing

SU = Standard Units
OVA = Organic Vapor Analyzer
ppm = parts per million
TOC = Total Organic Carbon Analyzed by Walker-Blaken Method
Total Alkalinity Analyzed by MCAWW 310.1
VOCs = Volatile Organic Compounds Analyzed by USEPA Method 8260B
Grain Size Analysis by ASTM D422
Water Retention Analysis by ASTM D2325
Permeability Analysis by COE EM 1110-2-1906
Specific Gravity Analysis by ASTM D 854

PREPARED BY/DATE: DJH 8/11/10
CHECKED BY/DATE: RNQ 12/2/10

TABLE 3.2: SUMMARY OF MONITORING WELL CONSTRUCTION DATA

Well Number	Date Installed	Installed By	Well Type	Total Boring Depth (ft, bgs)	Total Well Depth (ft, bgs)	Ground Elevation (ft, NAVD)	Top of Casing Elevation (ft, NAVD)	Screened Interval				Unit Screened	Depth to Top of Sand (ft, bgs)	Depth to Top of Bentonite (ft, bgs)
								Elevation (ft, NAVD)		Depth (ft, bgs)				
MW-1	1/31/2000	ESC/Alliance Environmental	single cased	78.0	75.0	333.9	333.69	264.5	259.5	69.4	74.4	uppermost	67.0	62.2
MW-2	2/1/2000	ESC/Alliance Environmental	single cased	68.0	58.0	322.6	322.38	269.6	264.6	53.0	58.0	uppermost	51.0	48.6
MW-3	2/2/2000	ESC/Alliance Environmental	single cased	63.4	60.0	325.6	325.45	270.6	265.6	55.0	60.0	uppermost	52.5	47.5
MW-4	2/3/2000	ESC/Alliance Environmental	single cased	68.0	58.0	323.9	323.78	270.9	265.9	53.0	58.0	uppermost	50.5	46.2
MW-5	2/1/2000	ESC/Alliance Environmental	single cased	58.0	54.0	321.3	321.10	272.3	267.3	49.0	54.0	uppermost	45.5	40.5
MW-6	2/2/2000	ESC/Alliance Environmental	single cased	58.0	48.0	314.5	314.37	271.5	266.5	43.0	48.0	uppermost	40.5	36.5
MW-7	2/6/2003	Prosonic/ MACTEC	single cased	58.0	56.2	320.6	320.23	274.6	264.6	46.0	56.0	uppermost	43.0	40.0
MW-8	2/6/2003	Prosonic/ MACTEC	single cased	72.0	70.2	330.1	329.70	270.1	260.1	60.0	70.0	uppermost	57.1	54.5
MW-9	2/10/2003	Prosonic/ MACTEC	single cased	69.0	65.2	323.5	323.09	268.5	258.5	55.0	65.0	uppermost	52.2	48.3
MW-10	2/10/2003	Prosonic/ MACTEC	single cased	49.5	45.2	307.7	310.05	272.7	262.7	35.0	45.0	uppermost	31.9	28.8
MW-11	2/11/2003	Prosonic/ MACTEC	single cased	79.0	76.2	331.3	333.77	265.3	255.3	66.0	76.0	uppermost	62.9	60.0
MW-12	2/11/2003	Prosonic/ MACTEC	single cased	73.0	70.7	326.0	328.34	265.5	255.5	60.5	70.5	uppermost	57.5	54.2
MW-13	2/12/2003	Prosonic/ MACTEC	single cased	25.0	22.3	281.2	283.71	269.2	259.2	12.0	22.0	uppermost	10.0	6.0
MW-14	3/26-27/2003	Prosonic/ MACTEC	double cased	88.0	86.5	309.4	311.62	238.2	223.2	71.2	86.2	intermediate	69.0	66.7
MW-15	3/27/2003	Prosonic/ MACTEC	single cased	12.0	12.0	257.6	260.17	250.9	245.9	6.7	11.7	alluvium	5.0	3.0
MW-16	3/27/2003	Prosonic/ MACTEC	single cased	12.0	12.5	251.3	253.81	244.6	239.6	6.7	11.7	alluvium	5.0	3.0
MW-17	5/8/2003	MACTEC	single cased	50.3	48.0	258.0	260.48	225.0	210.5	33.0	47.5	intermediate	31.3	29.3
MW-18	5/9/2003	MACTEC	single cased	48.0	42.5	251.5	254.18	224.5	209.5	27.0	42.0	intermediate	22.5	19.1
MW-19	5/20/2003	Prosonic/ MACTEC	single cased	47.0	46.5	309.4	311.89	273.2	263.2	36.2	46.2	uppermost	33.5	31.3
MW-20	5/21/2003	Prosonic/ MACTEC	double cased	107.0	107.0	326.0	325.75	234.3	219.3	91.7	106.7	intermediate	88.7	85.8
MW-21	9/3/2003	Prosonic/ MACTEC	double cased	105.2	105.2	320.8	320.49	231.1	216.1	89.7	104.7	intermediate	83.5	80.0
MW-22	9/6/2003	Prosonic/ MACTEC	double cased	116.0	114.4	334.3	334.05	235.4	220.4	98.9	113.9	intermediate	95.0	92.0
MW-23	9/3/2003	Prosonic/ MACTEC	double cased	106.5	106.5	324.0	323.77	233.0	218.0	91.0	106.0	intermediate	87.0	83.0
MW-24	10/11/2004	Prosonic/ MACTEC	triple cased	147.0	147.0	321.4	321.23	184.5	174.7	136.9	146.7	lower	133.7	129.0
MW-25	6/1-2/2010	Boart Longyear/ MACTEC	double cased	107.0	107.0	321.5	321.18	229.7	214.7	91.8	106.8	intermediate	89.0	86.0
MW-26	10/19/2010	MACTEC	single cased	6.1	6.1	251.44	255.29	250.4	245.4	1.0	6.0	alluvium	1.0	0.0
MW-27	10/19/2010	MACTEC	single cased	7.3	7.3	254.70	257.50	252.5	247.5	2.2	7.2	alluvium	2.2	0.0
MW-28	10/19/2010	MACTEC	single cased	7.2	7.2	251.08	251.73	249.0	244.0	2.1	7.1	alluvium	2.1	0.0

Notes:

ft	feet
bgs	below ground surface
NAVD	North American Vertical Datum 1988
ESC	Environmental Strategies Corporation

PREPARED BY/DATE: DJH 8/11/10
CHECKED BY/DATE: RNQ 12/2/10

TABLE 4.0: SUMMARY OF GROUND-WATER ELEVATIONS

Monitoring Well	Water-Bearing Zone Screened	Top of Casing Elevation (ft, NAVD)	Depth to Water from Top of Casing (ft) September 11, 2003	Ground-Water Elevation (ft, NAVD) September 11, 2003	Depth to Water from Top of Casing (ft) June 24, 2004	Ground-Water Elevation (ft, NAVD) June 24, 2004	Depth to Water from Top of Casing (ft) October 12, 2004	Ground-Water Elevation (ft, NAVD) October 12, 2004	Depth to Water from Top of Casing (ft) February 25, 2008	Ground-Water Elevation (ft, NAVD) February 25, 2008	Depth to Water from Top of Casing (ft) June 1-3, 2010	Ground-Water Elevation (ft, NAVD) June 1-3, 2010	Depth to Water from Top of Casing (ft) June 24, 2010	Ground-Water Elevation (ft, NAVD) June 24, 2010	Depth to Water from Top of Casing (ft) October 21, 2010	Ground-Water Elevation (ft, NAVD) October 21, 2010
MW-1	Uppermost	333.69	46.79	286.90	47.33	286.36	47.88	285.81	49.47	284.22	46.22	287.47			46.73	286.96
MW-2	Uppermost	322.38	37.80	284.58	38.41	283.97	38.77	283.61	40.16	282.22	37.60	284.78			38.03	284.35
MW-3	Uppermost	325.45	40.86	284.59	41.42	284.03	41.82	283.63	43.00	282.45	40.70	284.75			41.06	284.39
MW-4	Uppermost	323.78	39.52	284.26	40.12	283.66	40.17	283.61	41.42	282.36	39.29	284.49			39.52	284.26
MW-5	Uppermost	321.10	39.45	281.65	39.96	281.14	40.06	281.04	40.73	280.37	39.18	281.92	39.27	281.83	39.52	281.58
MW-6	Uppermost	314.37	31.36	283.01	31.02	283.35	31.53	282.84	32.10	282.27	30.74	283.63			31.03	283.34
MW-7	Uppermost	320.23	34.33	285.90	35.04	285.19	35.32	284.91	36.41	283.82	34.31	285.92			34.69	285.54
MW-8	Uppermost	329.70	42.00	287.70	42.60	287.10	42.97	286.73	44.39	285.31	41.63	288.07			42.14	287.56
MW-9	Uppermost	323.09	36.71	286.38	37.78	285.31	38.47	284.62	40.16	282.93	37.21	285.88			36.36	286.73
MW-10	Uppermost	310.05	28.30	281.75	27.99	282.06	29.04	281.01	29.22	280.83	27.96	282.09			28.64	281.41
MW-11	Uppermost	333.77	51.08	282.69	50.55	283.22	50.98	282.79	52.71	281.06	49.66	284.11			50.27	283.50
MW-12	Uppermost	328.34	47.31	281.03	48.18	280.16	48.67	279.67	50.18	278.16	47.29	281.05			48.23	280.11
MW-13	Uppermost	283.71	5.40	278.31	5.66	278.05	9.42	274.29	9.21	274.50	8.25	275.46			9.50	274.21
MW-14	Intermediate	311.62	64.64	246.98	64.42	247.20	64.17	247.45	64.41	247.21	64.66	246.96	65.20	246.42	65.74	245.88
MW-15	Alluvium	260.18	5.36	254.82	4.69	255.49	5.05	255.13	3.68	256.50	4.71	255.47			7.43	252.75
MW-16	Alluvium	253.81	4.55	249.26	3.99	249.82	4.40	249.41	3.47	250.34	4.30	249.51			6.45	247.36
MW-17	Intermediate	260.48	11.70	248.78	11.51	248.97	11.81	248.67	11.79	248.69	11.90	248.58			13.41	247.07
MW-18	Intermediate	254.18	5.61	248.57	5.45	248.73	5.70	248.48	5.62	248.56	5.80	248.38			7.18	247.00
MW-19	Uppermost	311.89	31.90	279.99	32.11	279.78	32.34	279.55	32.61	279.28	31.37	280.52	31.57	280.32	31.77	280.12
MW-20	Intermediate	325.75	79.79	245.96	79.89	245.86	79.67	246.08	79.86	245.89	79.97	245.78			80.88	244.87
MW-21	Intermediate	320.49	75.05	245.44	75.12	245.37	75.19	245.30	75.64	244.85	75.52	244.97			76.41	244.08
MW-22	Intermediate	334.05	89.16	244.89	89.23	244.82	89.33	244.72	89.65	244.40	89.64	244.41			90.48	243.57
MW-23	Intermediate	323.77	78.69	245.08	78.77	245.00	78.80	244.97	79.00	244.77	79.11	244.66			80	243.77
MW-24	Lower	321.23	not installed				86.67	234.56	87.04	234.19	85.33	235.90	86.38	234.85	88.88	232.35
MW-25	Intermediate	321.18	not installed										75.27	245.91	75.91	245.27
MW-26	Alluvium	255.29	not installed												7.00	248.29
MW-27	Alluvium	257.50	not installed												6.84	250.66
MW-28	Alluvium	251.73*	not installed												5.59	246.14
Staff Gauge near MW-16	Surface Water	249.80	0.60	249.20	0.88	248.92	0.60	249.20	0.60	249.20	nm				1.42	248.38
Hwy 24 Bridge over Manson Branch	Surface Water	257.08	8.80	248.28	5.79	251.29	5.80	251.28	6.64	250.44	nm				6.79	250.29

Notes:
ft, NAVD Feet above North American Vertical Datum of 1988
Monitoring wells MW-1 to MW-13, MW-15, MW-16 and MW-19 screened above the uppermost tan and blue-gray clays of the Twiggs Clay (Uppermost Water-bearing Zone)
Monitoring wells MW-14, MW-17, MW-18, and MW-20 to MW-23 screened below the uppermost tan and blue-gray clays of the Twiggs Clay (Intermediate Water-bearing Zone)
nm = not measured
* The elevations for well MW-28 are being re-surveyed and the groundwater elevation is in question.
249.80 new elevation of Staff Gauge near MW-16 as of 11/2/2010

PREPARED BY/DATE RNQ 11/8/2010

CHECKED BY/DATE: DLH 11/11/10

Table 4.1: SUMMARY OF HYDRAULIC CONDUCTIVITY TESTING

Well Number	Date of Test	Screened Interval (ft, NAVD)	Lithology Screened	Hydraulic Conductivity		Average Hydraulic Conductivity	
				Slug In (ft/min)	Slug Out (ft/min)	(ft/min)	(cm/sec)
MW-1	10/4/2000	264.5 - 259.5	Brown coarse grained Sand, some clay [Uppermost zone]	0.0011	0.0012	0.0012	0.0006
MW-4	10/4/2000	270.9 - 265.9	Brown medium to coarse grained Sand, some clay [Uppermost zone]	0.00067	0.00073	0.0007	0.0004
MW-10	4/3/2003	272.7 - 262.7	Orange and gray slightly clayey silty fine to medium Sand [Uppermost zone]	0.00057	0.00046	0.0005	0.0003
MW-14	4/3/2003	238.2 - 223.2	Blue-gray clayey silty fine to medium Sand [Intermediate zone]	0.021	0.021	0.021	0.01067
MW-15	4/3/2003	250.9 - 245.9	Blue-gray sandy, silty Clay [Alluvium Deposits]	0.0066	0.0071	0.0069	0.003
MW-17	6/2/2010	225.0 - 210.5	Greenish-gray silty medium to very coarse Sand with gravel and clay zones [Intermediate zone]	0.00085	0.00073	0.0008	0.0004

Table 4.1: SUMMARY OF HYDRAULIC CONDUCTIVITY TESTING

Well Number	Date of Test	Screened Interval (ft, NAVD)	Lithology Screened	Hydraulic Conductivity		Average Hydraulic Conductivity	
				Slug In (ft/min)	Slug Out (ft/min)	(ft/min)	(cm/sec)
MW-20	6/2/2010	234.3 - 219.3	Blue-gray silty clayey fine to coarse Sand with gravel and clay layers grading to a sandy Clay [Intermediate zone]	0.00214	0.00203	0.0021	0.00106
MW-22	6/2/2010	235.4 - 220.4	Blue-gray silty clayey fine Sand with some medium Sand grading to a silty Clay [Intermediate zone]	0.00421	0.00420	0.0042	0.00214
MW-23	6/2/2010	233.0 - 218.0	Blue-gray clayey silty fine Sand with some medium Sand grading to a sandy silty Clay [Intermediate zone]	0.00466	0.00568	0.0052	0.003
MW-25	6/4/2010	229.7 - 214.7	Gray to Blue-gray silty fine to coarse Sand with clay lenses and limestone fragments grading to stiff Clay [Intermediate zone]	0.00105	0.00056	0.0008	0.0004

Notes:

NAVD North American Vertical Datum 1988
cm/sec centimeters per second
ft/day feet per day

PREPARED BY/DATE: JCB 1/17/07 Updated RNQ 8/4/10
CHECKED BY/DATE: RNQ 2/13/07 Update checked JMQ 11/19/10

Table 4.2: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SURFACE SOIL

Constituent	Boring Number / Sample ID / Sample Depth (ft. bgs) / Date Sampled	VRP Delineation Criteria 12-8-108(1)(A) Site Background Concentrations	Highest RRSs (µg/kg)	GW-E-1 SO-E-1 0'-2' 9/25/2000	GW-E-4 SO-E-4 0'-2' 9/27/2000	GW-E-13 SO-E-13 0'-4' 10/9/2000	GW-AOC 1-1 SO-AOC 1-1 0'-2' 10/31/2000	GW-AOC 2-1 SO-AOC 2-1 0'-2' 10/17/2000	GW-AOC 3-1 SO-AOC 3-1 0'-2' 10/30/2000	GW-AOC 3-2 SO-AOC 3-2 0'-2' 10/30/2000	GW-AOC 8-1 SO-AOC-8-1 0'-2' 10/11/2000	GW-AOC 8-2 SO-AOC 8-2 0'-2' 10/12/2000	GW-AOC 9-1 SO-AOC 9-1 0'-2' 10/19/2000	GW-AOC 9-2 SO-AOC 9-2 0'-2' 10/20/2000	GW-AOC 10-1 SO-AOC 10-1 0'-2' 10/12/2000	HA-1 HA-1 0.4'-2.1' 3/27/2003	HA-2 HA-2 0.35'-2.1' 3/27/2003
Volatile Organic Compounds SW8260B - (µg/kg)																	
1,1,2-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	500	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
1,1,1-Trichloroethane			170,000	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	24	<1800
1,1-Dichloroethene			6,800	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
1,4-Dioxane			500	<240	<210	<340	250,000	<230	12,000	<11000	<230	<200	<290	<230	<230	<290	1,500,000
cis-1,2-Dichloroethene			7,000	<2.4	<2.1	<3.4	<100	<2.3	<120	600	<2.3	<2.0	<2.9	<2.3	<2.3	<5.9	<1800
Ethylbenzene			70,000	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
Isopropylbenzene			62,000	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
m+p-Xylene			1,000,000	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	NA	NA
Tetrachloroethene			500	<4.9	<4.2	<6.8	<210	<4.6	<230	<220	<4.6	<4.1	<5.8	<4.6	<4.6	<5.9	<1800
Trichloroethene			1,800	<4.9	<4.2	<6.8	<210	<4.6	<230	4100	49	12	<5.8	<4.6	<4.6	22	<1800
Total Xylenes			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.9	<1800
Volatile Organic Compounds SW8260B - (µg/L)																	
1,4-Dioxane - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	120000
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0
Tetrachloroethene - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0

Table 4.2: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SURFACE SOIL

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	HA-3 HA-3 0.35'-2.05' 3/27/2003	HA-4 HA-4 0.42'-1.95' 3/27/2003	HA-5 HA-5 0.4'-2.2' 3/27/2003	HA-6 HA-6 1.2'-2.0' 3/27/2003	HA-7 HA-7 3.0'-5.0' 3/27/2003	HA-8 HA-8 0.0'-0.5' 3/27/2003	SB-2 SB-2 1.5'-3.5' 2/3/2000	SB-101 SB-101 0'-2' 2/6/2003	SB-102 SB-102 0'-2' 1/21/2003	SB-103 SB-103 0'-2' 2/6/2003
Volatile Organic Compounds SW8260B - (µg/kg)													
1,1,2-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	500	26	<5.2	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8
1,1,1-Trichloroethane			170,000	180	46	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8
1,1-Dichloroethene			6,800	23	<5.2	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8
1,4-Dioxane			500	14,000 E	1,900	<200	<11000	<14000	<290	NA	<240	<240	<240
cis-1,2-Dichloroethene			7,000	<6.8	<5.2	6	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8
Ethylbenzene			70,000	<6.8	<5.2	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8
Isopropylbenzene			62,000	<6.8	<5.2	<4.0	<230	<290	<5.9	<5.7	<4.8	<4.7	<4.8
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	<5.7	NA	NA	NA
Tetrachloroethene			500	<6.8	<5.2	<4.0	<230	<290	<5.9	13	<4.8	<4.7	<4.8
Trichloroethene			1,800	120	47	110	660	800	<5.9	15	<4.8	<4.7	<4.8
Total Xylenes			1,000,000	<6.8	<5.2	<4.0	<230	<290	<5.9	NA	<4.8	<4.7	<4.8
Volatile Organic Compounds SW8260B - (µg/L)													
1,4-Dioxane - SPLP				NA	NA	NA	<200	NA	NA	NA	NA	NA	NA
Methylene Chloride - SPLP				NA	NA	NA	7.1 B	NA	NA	NA	NA	NA	NA
Tetrachloroethene - SPLP				NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA

Table 4.2: SUMMARY OF REGULATED SUBSTANCES DETECTED IN SURFACE SOIL

Constituent	Boring Number / Sample ID / Sample Depth (ft. bgs) / Date Sampled	VRP Delineation Criteria 12-8-108(1)(A) Site Background Concentrations	Highest RRSs (µg/kg)	SB-104 SB-104 0'-2' 1/21/2003	SB-105 SB-105 0'-2' 1/22/2003	SB-106 SB-106 0'-2' 1/23/2003	SB-107 SB-107 0'-2' 2/7/2003	SB-108 SB-108 0'-2' 1/24/2003	SB-109 SB-109 0'-2' 1/23/2003	SB-110 SB-110 0'-2' 2/10/2003	SB-111 SB-111 0'-2' 1/22/2003	SB-112 SB-112 0'-2' 1/23/2003	SB-113 SB-113 0'-2' 2/3/2003	SB-113 SPLP SB-11 0'-2' 2/5/2003 µg/L	SB-114 SB-114 0'-2' 2/5/2003	SB-115 SB-115 0'-2' 3/13/2003	SB-116 SB-116 0'-2' 3/12/2003	SB-117 SB-117 0'-2' 3/12/2003	SB-118 SB-118 0'-2' 3/26/2003
Volatile Organic Compounds SW8260B - (µg/kg)																			
1,1,2-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	500	<4.5	<5.2	<4.8	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
1,1,1-Trichloroethane			170,000	<4.5	<5.2	<4.8	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
1,1-Dichloroethene			6,800	<4.5	9.4	<4.8	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
1,4-Dioxane			500	<220	<260	<240	<220	<240	<260	<230	<450	<260	<240	NA	<240	<260	<220	<220	<260
cis-1,2-Dichloroethene			7,000	<4.5	<5.2	<4.8	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
Ethylbenzene			70,000	<4.5	<5.2	<4.8	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
Isopropylbenzene			62,000	<4.5	<5.2	<4.8	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	16	<4.4	<4.4	<5.1
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene			500	<4.5	<5.2	<4.8	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
Trichloroethene			1,800	<4.5	10	<4.8	<4.3	<4.8	<5.1	<4.6	<4.5	23	<4.8	NA	130	<5.2	<4.4	<4.4	<5.1
Total Xylenes			1,000,000	<4.5	<5.2	<4.8	<4.3	<4.8	<5.1	<4.6	<4.5	<5.1	<4.8	NA	<4.8	<5.2	<4.4	<4.4	<5.1
Volatile Organic Compounds SW8260B - (µg/L)																			
1,4-Dioxane - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<400	NA	NA	NA	NA	NA
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.6 B	NA	NA	NA	NA	NA
Tetrachloroethene - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	NA	NA	NA

Notes:

AOC	Area of Concern
B	Constituent was detected in QA/QC blank
E	Estimated Concentration; result exceeds the calibration range
GW	Ground Water
NA	Not analyzed for this constituent.
µg/kg	micrograms per kilogram
µg/L	microgram per liter
ft. bgs	feet below ground surface
SPLP	Synthetic Precipitation Leaching Procedure US EPA Method 1312
a)	Borings GW-E-1 to GW-AOC 10-1 (9/25/00 to 11/01/00) sampled by LAW and analyzed by STL North Canton using USEPA method 5035/8260B
b)	Borings SB-1 to SB-10 (02/03/00) sampled by ESC
c)	Borings SB-101 to SB-118, HA-1 to HA-8 sampled by MACTEC and analyzed by STL North Canton using USEPA method 5035/8260B
RRS	Risk Reduction Standards
	Concentration exceeds Types 1-4 RRSs

PREPARED BY/DATE: RNQ 2/22/07
CHECKED BY/DATE: JAH 2/23/07

DELINEATION CRITERIA

The delineation of regulated substances released at the site was provided in the Revised CSR. Volatile organic compounds in surface (0 to 2 feet) have been delineated under HSRA Rules (391-3-19-.06(3)(b)2) on the basis of non-detection of these regulated substances above laboratory quantitation limits. Background for anthropogenic organic constituents is non-detect. This delineation is equivalent to VRP delineation criteria 12-8-108(1)(A), background concentrations.

TABLE 4.3:SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	SB-1 SB-1 10'-11' 2/3/2000	SB-3 SB-3 5'-6' 2/3/2000	SB-4 SB-4 8'-9' 2/3/2000	SB-5 SB-5 8'-9' 2/3/2000	SB-6 SB-6 0'-10' 2/3/2000	SB-7 SB-7 7'-8' 2/3/2000	SB-8 SB-8 7'-8' 2/3/2000	SB-9 SB-9 8'-9' 2/3/2000	SB-10 SB-10 5'-6' 2/3/2000	GW-E-1 SO-E-1 32'-34' 9/25/2000	GW-E-4 SO-E-4 40'-42' 9/27/2000
Volatile Organic Compounds - SW8260B - (µg/kg)														
1,1,1-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	170,000	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6
1,1-Dichloroethene			6,800	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6
cis-1,2-Dichloroethene			7,000	<5.9	<300	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<2.0	<4.8
Ethylbenzene			70,000	<5.9	360	<6.2	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6
m+p-Xylene			1,000,000	<5.9	1400	9.6	<5.9	<5.7	<5.6	<5.8	<5.7	<5.6	<4.0	<9.6
Tetrachloroethene			500	11	<300	<6.2	10	8.4	10	8.2	9.3	9.4	<4.0	<9.6
Trichloroethene			1,800	160 E	<300	<6.2	12	9.7	14	9.3	11	11	<4.0	<9.6
Volatile Organic Compounds - SW8260B - (µg/L)														
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4.3:SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	GW-E-13		GW-AOC 1-1		GW-AOC 2-1		GW-AOC 3-1		GW-AOC 3-2	
				SO-E-13 14'-16' 10/9/2000	SO-E-13 38'-40' 10/9/2000	SO-AOC 1-1 29'-31' 10/31/2000	SO-AOC 1-1 38'-40' 10/31/2000	SO-AOC 2-1 18'-20' 10/17/2000	SO-AOC 2-1 38'-40' 10/17/2000	SO-AOC 3-1 29'-31' 11/1/2000	SO-AOC 3-1 38'-40' 11/1/2000	SO-AOC 3-2 8'-10' 10/30/2000	SO-AOC 3-2 38'-40' 10/30/2000
Volatile Organic Compounds - SW8260B - (µg/kg)													
1,1,1-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	170,000	<5.1	<9.2	86	85	<4.4	<5.5	<5.3	<5.2	<200	<5.2
1,1-Dichloroethene			6,800	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2
cis-1,2-Dichloroethene			7,000	<2.6	<4.6	<3.6	<2.6	<2.2	<2.8	<2.6	<2.6	190	<2.6
Ethylbenzene			70,000	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2
m+p-Xylene			1,000,000	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2
Tetrachloroethene			500	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	<200	<5.2
Trichloroethene			1,800	<5.1	<9.2	<7.2	<5.2	<4.4	<5.5	<5.3	<5.2	980	<5.2
Volatile Organic Compounds - SW8260B - (µg/L)													
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4.3:SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	GW-AOC 8-1		GW-AOC 8-2		GW-AOC 9-1		GW-AOC 9-2	
				SO-AOC-8-1 14'-16' 10/11/2000	SO-AOC-8-1 38'-40' 10/11/2000	SO-AOC 8-2 18'-20' 10/12/2000	SO-AOC 8-2 38'-40' 10/12/2000	SO-AOC 9-1 4'-6' 10/19/2000	SO-AOC 9-1 34'-36' 10/19/2000	SO-AOC 9-2 4'-6' 10/20/2000	SO-AOC 9-2 32'-34' 10/20/2000
Volatile Organic Compounds - SW8260B - (µg/kg)											
1,1,1-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	170,000	5.4	<6.6	<4.4	<5.7	<6.6	<4.8	<6.7	<5.1
1,1-Dichloroethene			6,800	<4.8	<6.6	<4.4	<5.7	<6.6	<4.8	<6.7	<5.1
cis-1,2-Dichloroethene			7,000	5.6	<3.3	4	<2.8	<3.3	<2.4	<3.4	<2.6
Ethylbenzene			70,000	<4.8	<6.6	<4.4	<5.7	<6.6	<4.8	<6.7	<5.1
m+p-Xylene			1,000,000	<4.8	<6.6	<4.4	<5.7	<6.6	<4.8	<6.7	<5.1
Tetrachloroethene			500	<4.8	<6.6	<4.4	<5.7	<6.6	<4.8	<6.7	<5.1
Trichloroethene			1,800	78	<6.6	31	<5.7	<6.6	<4.8	<6.7	<5.1
Volatile Organic Compounds - SW8260B - (µg/L)											
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4.3:SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	GW-AOC 10-1		SB-101		SB-102		SB-103		SB-104	
				SO-AOC 10-1 18'-20' 10/12/2000	SO-AOC 10-1 38'-40' 10/12/2000	SB-101 12'-14' 2/6/2003	SB-101 36'-38' 2/6/2003	SB-102 5'-6' 1/21/2003	SB-102 35'-36 1/21/2003	SB-103 26'-28' 2/6/2003	SB-103 46'-48' 2/6/2003	SB-104 21'-22' 1/21/2003	SB-104 40'-42' 1/21/2003
Volatile Organic Compounds - SW8260B - (µg/kg)													
1,1,1-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	170,000	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
1,1-Dichloroethene			6,800	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
cis-1,2-Dichloroethene			7,000	<2.2	<3.9	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
Ethylbenzene			70,000	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
m+p-Xylene			1,000,000	<4.4	<7.8	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene			500	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
Trichloroethene			1,800	<4.4	<7.8	<4.9	<6.0	<4.9	<6.2	<5.1	<5.7	<5.7	<5.4
Volatile Organic Compounds - SW8260B - (µg/L)													
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4.3:SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	SB-105		SB-106		SB-107		SB-108	
				SB-105 11'-12' 1/22/2003	SB-105 37'-38' 1/22/2003	SB-106 29'-30' 1/23/2003	SB-106 42'-43' 1/23/2003	SB-107 14'-16' 2/7/2003	SB-107 38'-40' 2/10/2003	SB-108 29'-30' 1/24/2003	SB-108 45'-46' 1/24/2003
Volatile Organic Compounds - SW8260B - (µg/kg)											
1,1,1-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	170,000	43	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
1,1-Dichloroethene			6,800	31	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
cis-1,2-Dichloroethene			7,000	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
Ethylbenzene			70,000	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene			500	<5.0	<5.8	<4.6	<5.4	<4.7	<4.7	<4.8	<5.8
Trichloroethene			1,800	53	<5.8	<4.6	<5.4	<4.7	<4.7	9.0	7.0
Volatile Organic Compounds - SW8260B - (µg/L)											
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4.3:SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	SB-109		SB-110		SB-111		SB-112	
				SB-109 11'-12' 1/23/2003	SB-109 27'-28' 1/23/2003	SB-110 4'-6' 2/10/2003	SB-110 32'-34' 2/10/2003	SB-111 21'-22' 1/22/2003	SB-111 32'-33' 1/22/2003	SB-112 18'-19' 1/23/2003	SB-112 38'-39' 1/23/2003
Volatile Organic Compounds - SW8260B - (µg/kg)											
1,1,1-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	170,000	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
1,1-Dichloroethene			6,800	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
cis-1,2-Dichloroethene			7,000	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
Ethylbenzene			70,000	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene			500	<4.5	<4.8	<4.8	<5.2	<5.0	<5.3	<260	<5.4
Trichloroethene			1,800	19	<4.8	<4.8	<5.2	<5.0	<5.3	560	17
Volatile Organic Compounds - SW8260B - (µg/L)											
Methylene Chloride - SPLP				NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4.3:SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	SB-113		SB-114		SB-115	
				SB-113 4'-6' 2/5/2003	SB-113 40'-42' 2/5/2003	SB-114 22'-24' 2/5/2003	SB-114 42'-44' 2/5/2003	SB-115 11'-13' 3/13/2003	SB-115 18'-20' 3/13/2003
Volatile Organic Compounds - SW8260B - (µg/kg)									
1,1,1-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	170,000	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
1,1-Dichloroethene			6,800	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
cis-1,2-Dichloroethene			7,000	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
Ethylbenzene			70,000	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
m+p-Xylene			1,000,000	NA	NA	NA	NA	NA	NA
Tetrachloroethene			500	<5.1	<5.7	<4.9	<5.2	<4.9	<5.5
Trichloroethene			1,800	9.4	<5.7	<4.9	<5.2	<4.9	<5.5
Volatile Organic Compounds - SW8260B - (µg/L)									
Methylene Chloride - SPLP				NA	NA	3.4 B	NA	NA	NA

TABLE 4.3:SUMMARY OF REGULATED SUBSTANCES DETECTED IN SUBSURFACE SOIL SAMPLES

Constituent	Boring Number Sample ID Sample Depth (ft. bgs) Date Sampled	**VRP Delineation Criteria 12-8-108(1)(A)** **Site Background Concentrations**	Highest RRSs (µg/kg)	SB-117		SB-118
				SB-117 12'-14' 3/12/2003	SB-117 44'-46' 3/12/2003	SB-118 4'-5' 3/26/2003
Volatile Organic Compounds - SW8260B - (µg/kg)						
1,1,1-Trichloroethane		Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	170,000	<4.7	<5.9	<5.1
1,1-Dichloroethene			6,800	<4.7	<5.9	<5.1
cis-1,2-Dichloroethene			7,000	<4.7	<5.9	<5.1
Ethylbenzene			70,000	<4.7	<5.9	<5.1
m+p-Xylene			1,000,000	NA	NA	NA
Tetrachloroethene			500	<4.7	<5.9	<5.1
Trichloroethene			1,800	<4.7	<5.9	<5.1
Volatile Organic Compounds - SW8260B - (µg/L)						
Methylene Chloride - SPLP				NA	NA	NA

Notes:

AOC	Area of Concern
B	Constituent was detected in QA/QC blank
E	Estimated concentration; result exceeds the calibration range
GW	Ground Water
NA	Not analyzed for this constituent
µg/kg	micrograms per kilogram
ft. bgs	feet below ground surface
SPLP	Synthetic Precipitation Leaching Procedure USEPA Method 1312
RRS	Risk Reduction Standard (2003 CSR values)
a)	Borings SO-E-1 to GW-AOC 10-1 (9/25/00 to 11/01/00) sampled by LAW and analyzed by STL North Canton using USEPA method 5035/8360B
b)	Borings SB-1 to SB-10 (02/03/00) sampled by ESC
c)	Boring SB-101 to SB-118 sampled by MACTEC (1/2/03 to 3/26/03) and analyzed by STL North Canton using USEPA method 5035/8260B
	Concentration exceeds Types 1-4 RRSs

DELINEATION CRITERIA

The delineation of regulated substances released at the site was provided in the Revised CSR. Volatile organic compounds in subsurface (Greater than 2 feet) have been delineated under HSRA Rules (391-3-19-.06(3)(b)2) on the basis of non-detection of these regulated substances

PREPARED BY/DATE: RNQ 2/22/07
CHECKED BY/DATE: JAH 2/23/07

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-1						
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Sample Depth (well screen interval) (ft. bgs)			69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*				72.2-73.7	72.2-73.7	72.2-73.7	72.2-73.7
Date Sampled			2/25/2000	10/2/2000	2/19/2003	5/5/2004	10/12-13/2004	4/7/2008	6/1/2010
Laboratory		(µg/L)	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge Method/Sample Method			Bailer/Bailer	Bailer/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer/ PDB	PumpLFLS/Bailer/ PDB	no purge/ PDB	no purge/ PDB
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Chloroform		80	**1.7**	<5.0	<5.0	<5.0	<5.0	<5.0	**4.9**
cis-1,2-Dichloroethene		1,000	<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0
Methylene chloride		180	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Toluene		6,400	**1.3**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Trichloroethene		70	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<1.0	<2.0	<5.0	<2.0	<2.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver			Metals were not sampled and analyzed			<0.1	<0.1	Metals were not sampled and analyzed	
Dissolved Silver						na	na		
Total Cadmium						<0.005	<0.005		
Dissolved Cadmium						na	na		
Total Chromium						<0.1	<0.1		
Dissolved Chromium						na	na		
Total Lead						<0.015	<0.015		
Dissolved Lead						na	na		
Total Copper						<1.0	<1.0		
Dissolved Copper						na	na		
Total Nickel						<0.1	<0.1		
Dissolved Nickel						na	na		
Total Zinc						<2.0	<2.0		
Dissolved Zinc						na	na		

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-2						
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
Sample Depth (well screen interval) (ft. bgs)			53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*				55.4-56.9	55.4-56.9	55.4-56.9	55.4-56.9
Date Sampled			2/25/2000	10/3/2000	2/19/2003	5/5/2004	10/12/2004	4/7/2008	6/1/2010
Laboratory		(µg/L)	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			Bailer/Bailer	Bailer/Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1-Trichloroethane		25,100	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	**2.1**
cis-1,2-Dichloroethene		1,000	<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0
Methylene chloride		180	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Toluene		6,400	**5**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Trichloroethene		70	**240**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<1.0	<2.0	<5.0	<2.0	<2.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver									
Dissolved Silver									
Total Cadmium									
Dissolved Cadmium									
Total Chromium									
Dissolved Chromium									
Total Lead									
Dissolved Lead									
Total Copper									
Dissolved Copper									
Total Nickel									
Dissolved Nickel									
Total Zinc									
Dissolved Zinc									

Metals were not sampled and analyzed

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-3							
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
Sample Depth (well screen interval) (ft. bgs)			55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*				57.5-59	57.5-59	57.5-59	57.5-59	
Date Sampled			2/25/2000	10/3/2000	2/18/2003	5/6/2004	10/12-13/2004	4/8/2008	6/2/2010	6/3/2010
Laboratory		(µg/L)	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			Bailer/Bailer	Bailer/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer/ PDB	PumpLFLS/Bailer/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS
Constituent										
Volatile Organic Compounds - SW8260B - (µg/L)										
1,1,1-Trichloroethane		25,100	<150	<5.0	**57**	**6.7**	**13**	<5.0	<1.0	<1.0
1,1-Dichloroethene		950	<150	<5.0	**13**	**5.1**	**12**	<5.0	<1.0	**1.7**
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<150	<5.0	<10	**7.3**	**7.7**	<5.0	**2.3**	**2.3**
cis-1,2-Dichloroethene		1,000	<150	<2.5	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0
Methylene chloride		180	<300	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0
Toluene		6,400	<150	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0
Trichloroethene		70	**2900**	<5.0	**69**	**8.1**	**15**	<5.0	**1.6**	**2.4**
Vinyl Chloride		4.0	<150	<2.0	<10	<2.0	<2.0	<2.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	<2.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)										
Total Silver						<0.1	<0.1			
Dissolved Silver						<0.1	na			
Total Cadmium						<0.005	<0.005			
Dissolved Cadmium						<0.005	na			
Total Chromium						<0.1	<0.1			
Dissolved Chromium						<0.1	na			
Total Lead			Metals were not sampled and analyzed			<0.015	<0.015	Metals were not sampled and analyzed		
Dissolved Lead						<0.015	na			
Total Copper						<1.0	<1.0			
Dissolved Copper						<1.0	na			
Total Nickel						<0.1	<0.1			
Dissolved Nickel						<0.1	na			
Total Zinc						<2.0	<2.0			
Dissolved Zinc						<2.0	na			

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-4						
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample Depth (well screen interval) (ft. bgs)			53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*				'55.5-57	'55.5-57	'55.5-57	'55.5-57
Date Sampled			2/25/2000	10/3/2000	2/18/2003	5/6/2004	10/12-13/2004	4/8/2008	6/2/2010
Laboratory		(µg/L)	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			Bailer/Bailer	Bailer/Bailer	PumpLFLS/Bailer	PumpLFLS/Bailer/ PDB	PumpLFLS/Bailer/ PDB	no purge/ PDB	no purge/ PDB
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1-Trichloroethane		25,100	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene		1,000	<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0
Methylene chloride		180	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Toluene		6,400	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Trichloroethene		70	**16**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<1.0	<2.0	<5.0	<2.0	<2.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver						<0.1	<0.1		
Dissolved Silver						<0.1	na		
Total Cadmium						<0.005	<0.005		
Dissolved Cadmium						<0.005	na		
Total Chromium						<0.1	<0.1		
Dissolved Chromium						<0.1	na		
Total Lead			Metals were not sampled and analyzed			<0.015	<0.015	Metals were not sampled and analyzed	
Dissolved Lead						<0.015	na		
Total Copper						<1.0	<1.0		
Dissolved Copper						<1.0	na		
Total Nickel						<0.1	<0.1		
Dissolved Nickel						<0.1	na		
Total Zinc						<2.0	<2.0		
Dissolved Zinc						<2.0	na		

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-5								
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
Sample Depth (well screen interval) (ft. bgs)			49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8
Passive Diffusion Bag Sample Depth (ft. btoc)							51.4-52.9	51.4-52.9	51.4-52.9	51.4-52.9	
Date Sampled		*Highest RRS*	2/25/2000	10/3/2000	2/18/2003	6/12/2003	5/7/2004	10/12-13/2004	4/7/2008	6/1/2010	6/2/2010
Laboratory		(µg/L)	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			Bailer/Bailer	Bailer/Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer/PDB	PumpLFSL/Bailer/PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)											
1,1,1-Trichloroethane		25,100	<400	<500	**45**	**53**	<45	<42	<12	<8	<8
1,1-Dichloroethene		950	<400	<500	**44**	**65**	<45	<42	<12	**8.9**	**22**
Chloroform		80	<400	<500	<25	<33	<45	<42	<12	<8	<8
cis-1,2-Dichloroethene		1,000	<400	<250	**15**	**19**	<45	<42	<6.2	<8	<8
Methylene chloride		180	<800	<500	<25	<33	<45	<42	<12	<8	<8
Toluene		6,400	<400	<500	<25	<33	<45	<42	<12	<8	<8
Trichloroethene		70	**7400**	**15000**	**730**	**1200**	**310**	**320**	**180**	**210**	**250**
Vinyl Chloride		4.0	<400	<200	<25	<33	<18	<17	<5	<8	<8
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na	<2.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)											
Total Silver							<0.1	<0.1			
Dissolved Silver							<0.1	na			
Total Cadmium							<0.005	<0.005			
Dissolved Cadmium							<0.005	na			
Total Chromium							<0.1	<0.1			
Dissolved Chromium							<0.1	na			
Total Lead							<0.015	<0.015			
Dissolved Lead			Metals were not sampled and analyzed				<0.015	na	Metals were not sampled and analyzed		
Total Copper							<1.0	<1.0			
Dissolved Copper							<1.0	na			
Total Nickel							<0.1	<0.1			
Dissolved Nickel							<0.1	na			
Total Zinc							<2.0	<2.0			
Dissolved Zinc							<2.0	na			

Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-6					MW-7		
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-6	MW-6	MW-6	MW-6	MW-6	MW-7	MW-7	MW-7
Sample Depth (well screen interval) (ft. bgs)			43'-48'	43'-48'	43'-48'	43'-48'	43'-48'	46'-56'	46'-56'	
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**	*Highest RRS*	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	45.6'-55.6'	45.6'-55.6'	45.6'-55.6'
Passive Diffusion Bag Sample Depth (ft. btoc)						45.9'-47.4'	45.9'-47.4'		53.7'-55.2'	53.7'-55.2'
Date Sampled			2/25/2000	10/3/2000	2/18/2003	4/8/2008	6/1/2010	2/25/2003	4/8/2008	6/1/2010
Laboratory		(µg/L)	STL Tampa	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			Bailer/Bailer	Bailer/Bailer	PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB
Constituent										
Volatile Organic Compounds - SW8260B - (µg/L)										
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Chloroform		80	<1.0	<5.0	<5.0	<5.0	**1.2**	<5.0	**6.0**	**4.1**
cis-1,2-Dichloroethene		1,000	<1.0	<2.5	<2.5	<2.5	<1.0	<2.5	<2.5	<1.0
Methylene chloride		180	<2.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Toluene		6,400	<1.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Trichloroethene		70	**9.6**	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<1.0	<2.0	<5.0	<2.0	<1.0	<5.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)										
Total Silver			Metals were not sampled and analyzed					Metals were not sampled and analyzed		
Dissolved Silver										
Total Cadmium										
Dissolved Cadmium										
Total Chromium										
Dissolved Chromium										
Total Lead										
Dissolved Lead										
Total Copper										
Dissolved Copper										
Total Nickel										
Dissolved Nickel										
Total Zinc										
Dissolved Zinc										

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-8						MW-9		
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-8	MW-8A	MW-8B	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9
Sample Depth (well screen interval) (ft. bgs)			60'-70'	60'-70'	60'-70'	60'-70'	60'-70'	60'-70'	55'-65'	55'-65'	55'-65'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**			59.6-69.6	59.6-69.6	59.6-69.6	59.6-69.6	59.6-69.6	54.6'-64.6'	54.6'-64.6'	54.6'-64.6'
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*		'60.6-62.1	65.6-67.1	'60.6-62.1	'60.6-62.1	'60.6-62.1		62.7'-64.2'	62.7'-64.2'
Date Sampled			2/24/2003	5/7/2004	5/7/2004	10/12/2004	4/7/2008	6/1/2010	2/24/2003	4/7/2008	6/1/2010
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)											
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Chloroform		80	<5.0	<5.0	<5.0	<5.0	<5.0	**1.0**	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene		1,000	<2.5	<5.0	<5.0	<5.0	<2.5	<1.0	<2.5	<2.5	<1.0
Methylene chloride		180	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Toluene		6,400	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Trichloroethene		70	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<5.0	<2.0	<2.0	<2.0	<2.0	<1.0	<5.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)											
Total Silver											
Dissolved Silver											
Total Cadmium											
Dissolved Cadmium											
Total Chromium											
Dissolved Chromium											
Total Lead											
Dissolved Lead											
Total Copper											
Dissolved Copper											
Total Nickel											
Dissolved Nickel											
Total Zinc											
Dissolved Zinc											

Metals were not sampled and analyzed

Metals were not sampled and analyzed

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-10						
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-10	MW-10A	MW-10B	MW-10	MW-10	MW-10	MW-10
Sample Depth (well screen interval) (ft. bgs)			35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*		38.6-40.1	43.6-45.1	38.6-40.1	38.6-40.1	38.6-40.1	
Date Sampled			2/25/2003	5/6/2004	5/6/2004	10/12-13/2004	4/8/2008	6/2/2010	6/3/2010
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			PumpLFLS/Bailer	PumpLFLS/Bailer/ PDB	PumpLFLS/Bailer/ PDB	PumpLFLS/Bailer/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<5.0	<5.0	<5.0	<5.0	**6.4**	**1.8**	**1.9**
cis-1,2-Dichloroethene		1,000	<2.5	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0
Methylene chloride		180	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0
Toluene		6,400	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0
Trichloroethene		70	<5.0	**8.5**	**5.8**	**6.1**	<5.0	**3.4**	**2.8**
Vinyl Chloride		4.0	<5.0	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	<2.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver				<0.1		<0.1			
Dissolved Silver				<0.1		na			
Total Cadmium				<0.005		<0.005			
Dissolved Cadmium				<0.005		na			
Total Chromium				<0.1		<0.1			
Dissolved Chromium				<0.1		na			
Total Lead			Metals were not sampled and analyzed	<0.015		<0.015	Metals were not sampled and analyzed		
Dissolved Lead				<0.015		na			
Total Copper				<1.0		<1.0			
Dissolved Copper				<1.0		na			
Total Nickel				<0.1		<0.1			
Dissolved Nickel				<0.1		na			
Total Zinc				<2.0		<2.0			
Dissolved Zinc				<2.0		na			

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-11			MW-12			MW-13			
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13
Sample Depth (well screen interval) (ft. bgs)			66'-76'	66'-76'	66'-76'	60.5'-70.5'	60.5'-70.5'	60.5'-70.5'	12'-22'	12'-22'	12'-22'	12'-22'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		68.5'-78.5'	68.5'-78.5'	68.5'-78.5'	62.9'-72.9'	62.9'-72.9'	62.9'-72.9'	14.5'-24.5'	14.5'-24.5'	14.5'-24.5'	14.5'-24.5'
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*		76.6'-78.1'	76.6'-78.1'		71.0'-72.5'	71.0'-72.5'		22.6'-24.1'	22.6'-24.1'	22.6'-24.1'
Date Sampled			2/25/2003	4/7/2008	6/2/2010	2/25/2003	4/7/2008	6/2/2010	2/26/2003	4/7/2008	6/2/2008	6/2/2010
Laboratory		(µg/L)	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<1.0
1,1-Dichloroethene		950	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<1.0
Chloroform		80	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<1.0
cis-1,2-Dichloroethene		1,000	<2.5	<2.5	<1.0	<2.5	<2.5	<1.0	<2.5	<2.5	<1.0	<1.0
Methylene chloride		180	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<1.0
Toluene		6,400	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<1.0
Trichloroethene		70	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<1.0
Vinyl Chloride		4.0	<5.0	<2.0	<1.0	<5.0	<2.0	<1.0	<5.0	<2.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)												
Total Silver												
Dissolved Silver												
Total Cadmium												
Dissolved Cadmium												
Total Chromium												
Dissolved Chromium												
Total Lead												
Dissolved Lead												
Total Copper												
Dissolved Copper												
Total Nickel												
Dissolved Nickel												
Total Zinc												
Dissolved Zinc												

Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits

Metals were not sampled and analyzed

Metals were not sampled and analyzed

Metals were not sampled and analyzed

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-14							MW-14					
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-14	MW-14 PRE	MW-14 POST	MW-14 LONG	MW-14 PRE	MW-14 POST	MW-14 LONG	MW-14 (7:10)	MW-14 (9:30)	MW-14 (12:15)	MW-14A	MW-14B	MW-14C
Sample Depth (well screen interval) (ft. bgs)			71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*											74.5-76	79.5-81	84.5-86
Date Sampled			4/3/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	6/13/2003	6/13/2003	6/13/2003	5/5/2004	5/5/2004	5/5/2004
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	ASI	ASI	ASI	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge Method/Sample Method			PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB
Constituent															
Volatile Organic Compounds - SW8260B - (µg/L)															
1,1,1-Trichloroethane		25,100	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
1,1-Dichloroethene		950	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
cis-1,2-Dichloroethene		1,000	**230**	**180**	**350**	**440**	**190**	**410**	**510**	**470**	**530**	**520**	**500**	**450**	**450**
Methylene chloride		180	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
Toluene		6,400	<100	<6.2	<25	<25	**29**	<100	<100	<250	<250	<250	<200	<250	<200
Trichloroethene		70	**3000**	**2200**	**6300**	**8200**	**2400**	**8200**	**8800**	**7000**	**7700**	**7300**	**6800**	**6600**	**6100**
Vinyl Chloride		4.0	<40	<6.2	<25	<25	<10	<40	<40	<250	<250	<250	<200	<250	<200
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)															
Total Silver															
Dissolved Silver															
Total Cadmium															
Dissolved Cadmium															
Total Chromium															
Dissolved Chromium															
Total Lead															
Dissolved Lead															
Total Copper															
Dissolved Copper															
Total Nickel															
Dissolved Nickel															
Total Zinc															
Dissolved Zinc															

Metals were not sampled and analyzed.

Metals were not sampled and analyzed.

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-14						MW-15			MW-16		
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-14	MW-14	MW-14	Re-analysis MW-14	MW-14	Re-analysis MW-14	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16
Sample Depth (well screen interval) (ft. bgs)			71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	9.3'-14.3'	9.3'-14.3'	9.3'-14.3'	9.2'-14.2'	9.2'-14.2'	9.2'-14.2'
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*	74.5-76	74.5-76	74.5-76	74.5-76				12.3'-13.8'	12.3'-13.8'		12.2'-13.7'	12.2'-13.7'
Date Sampled			10/12/2004	4/7/2008	6/2/2010	6/2/2010	6/3/2010	6/3/2010	4/3/2003	4/7/2008	6/2/2010	4/4/2003	4/7/2008	6/2/2010
Laboratory		(µg/L)	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB
Constituent														
Volatile Organic Compounds - SW8260B - (µg/L)														
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<310	<330	<120	<25	<140	<29	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<310	<330	<120	**57**	<140	**58**	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Chloroform		80	<310	<330	<120	<25	<140	<29	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene		1,000	<310	**410**	**370**	**320**	**380**	**330**	<2.5	<2.5	<1.0	<2.5	<2.5	<1.0
Methylene chloride		180	<310	<330	<120	<25	<140	<29	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Toluene		6,400	<310	<330	<120	<25	<140	<29	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Trichloroethene		70	**1900**	**4800**	**3500**	**3000 E**	**3600**	**3200 E**	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<120	<130	<120	<25	<140	<29	<2.0	<2.0	<1.0	<2.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	<25	na	na	<29	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)														
Total Silver														
Dissolved Silver														
Total Cadmium														
Dissolved Cadmium														
Total Chromium														
Dissolved Chromium														
Total Lead														
Dissolved Lead														
Total Copper														
Dissolved Copper														
Total Nickel														
Dissolved Nickel														
Total Zinc														
Dissolved Zinc														

Metals were not sampled and analyzed.

Metals were not sampled and analyzed

Metals were not sampled and analyzed

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-17						
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-17	MW-17A	MW-17B	MW-17C	MW-17	MW-17	MW-17
Sample Depth (well screen interval) (ft. bgs)			33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		35.5-50	35.5-50	35.5-50	35.5-50	35.5-50	35.5-50	35.5-50
Passive Diffusion Bag Sample Depth (ft. btoc)			36.4-37.9	36.4-37.9	41.4-42.9	46.4-47.9	36.4-37.9	36.4-37.9	36.4-37.9
Date Sampled		*Highest RRS*	5/14/2003	5/4/2004	5/4/2004	5/4/2004	10/12/2004	4/7/2008	6/2/2010
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge Method/Sample Method			PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene		1,000	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0
Methylene chloride		180	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Toluene		6,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Trichloroethene		70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver									
Dissolved Silver									
Total Cadmium									
Dissolved Cadmium									
Total Chromium									
Dissolved Chromium									
Total Lead			Metals were not sampled and analyzed						
Dissolved Lead									
Total Copper									
Dissolved Copper									
Total Nickel									
Dissolved Nickel									
Total Zinc									
Dissolved Zinc									

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-18						
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-18	MW-18A	MW-18B	MW-18C	MW-18	MW-18	MW-18
Sample Depth (well screen interval) (ft. bgs)			27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		29.7'-44.7'	29.7'-44.7'	29.7'-44.7'	29.7'-44.7'	29.6-44.6	29.6-44.6	29.7'-44.7'
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*		31.1-32.6	36.1-37.6	41.1-42.6	31.1-32.6	31.1-32.6	31.1-32.6
Date Sampled			5/14/2003	5/4/2004	5/4/2004	5/4/2004	10/12/2004	4/7/2008	6/2/2010
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene		1,000	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0
Methylene chloride		180	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Toluene		6,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Trichloroethene		70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver									
Dissolved Silver									
Total Cadmium									
Dissolved Cadmium									
Total Chromium									
Dissolved Chromium									
Total Lead									
Dissolved Lead									
Total Copper									
Dissolved Copper									
Total Nickel									
Dissolved Nickel									
Total Zinc									
Dissolved Zinc									

Metals were not sampled and analyzed

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-19									
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-19	MW-19	MW-19A	MW-19B	MW-19	MW-19	MW-19	Re-analyzed MW-19	MW-19	Re-analyzed MW-19
Sample Depth (well screen interval) (ft. bgs)			36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*			39.9-41.4	44.9-46.4	39.9-41.4	39.9-41.4	39.9-41.4	39.9-41.4		
Date Sampled			5/28/2003	6/13/2003	5/5/2004	5/5/2004	10/12/2004	4/7/2008	6/2/2010	6/2/2010	6/3/2010	6/3/2010
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			PumpLFLS/Bailer	PumpLFLS/Bailer	PumpLFSL/Bailer/ PDB	PumpLFSL/Bailer/ PDB	PumpLFSL/Bailer/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFSL	Pump-LFSL
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1-Trichloroethane		25,100	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200	<40
1,1-Dichloroethene		950	<250	<500	<1200	<1200	<1700	<100	**82**	**100**	<200	**72**
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200	<40
cis-1,2-Dichloroethene		1,000	<120	<250	<1200	<1200	<1700	<50	<56	<56	<200	<40
Methylene chloride		180	380 B	<500	<1200	<1200	<1700	<100	<56	<56	<200	<40
Toluene		6,400	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200	<40
Trichloroethene		70	**8000**	**12000**	**20000**	**19000**	**14000**	**1500**	**1700**	**1900**	**5800**	**5800 E**
Vinyl Chloride		4.0	<250	<500	<1200	<1200	<670	<40	<56	<56	<200	<40
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	<11	na	na	<40
Site-Specific Metals - SW6010B - (mg/L)												
Total Silver			Metals were not sampled and analyzed		<0.1		<0.1	Metals were not sampled and analyzed				
Dissolved Silver					NA		na					
Total Cadmium					<0.005		<0.005					
Dissolved Cadmium					NA		na					
Total Chromium					<0.1		<0.1					
Dissolved Chromium					NA		na					
Total Lead					<0.015		<0.015					
Dissolved Lead					NA		na					
Total Copper					<1.0		<1.0					
Dissolved Copper					NA		na					
Total Nickel					<0.1		<0.1					
Dissolved Nickel					NA		na					
Total Zinc					<2.0		<2.0					
Dissolved Zinc					NA		na					

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-20										
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-20	MW-20 (12:10)	MW-20 (15:00)	MW-20 (17:30)	MW-20A	MW-20B	MW-20C	MW-20	MW-20	MW-20	MW-20
Sample Depth (well screen interval) (ft. bgs)			91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'
Sample Depth (well screen interval) (ft. btoc)			91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5
Passive Diffusion Bag Sample Depth (ft. btoc)							92.6-94.1	97.6-99.1	102.6-104.1		92.6-94.1	92.6-94.1	
Date Sampled	**Site Background Concentrations**	*Highest RRS*	5/28/2003	6/12/2003	6/12/2003	6/12/2003	5/6/2004	5/6/2004	5/6/2004	10/28/2004	4/8/2008	6/1/2010	6/2/2010
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	Pump-LFLS
Constituent													
Volatile Organic Compounds - SW8260B - (µg/L)													
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7
cis-1,2-Dichloroethene		1,000	**14**	**12**	**15**	**20**	**40**	**40**	**33**	**52**	**120**	**150**	**170**
Methylene chloride		180	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7
Toluene		6,400	<5.0	**5.7**	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7
Trichloroethene		70	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0	<5.0	<5.7
Vinyl Chloride		4.0	<5.0	<5.0	<5.0	<5.0	<2.9	<2.9	<2.0	<4.0	<4.0	**15**	<5.7
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na	na	na	<2.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)													
Total Silver													
Dissolved Silver													
Total Cadmium													
Dissolved Cadmium													
Total Chromium													
Dissolved Chromium													
Total Lead													
Dissolved Lead													
Total Copper													
Dissolved Copper													
Total Nickel													
Dissolved Nickel													
Total Zinc													
Dissolved Zinc													

Metals were not sampled and analyzed

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-21						
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-21	MW-21A	MW-21B	MW-21C	MW-21	MW-21	MW-21
Sample Depth (well screen interval) (ft. bgs)			89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4
Passive Diffusion Bag Sample Depth (ft. btoc)				90.7-92.2	95.7-97.2	100.7-102.2	90.7-92.2	90.7-92.2	90.7-92.2
Date Sampled		*Highest RRS*	9/10/2003	5/7/2004	5/7/2004	5/7/2004	10/12/2004	4/8/2008	6/1/2010
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Chloroform		80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene		1,000	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0
Methylene chloride		180	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Toluene		6,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Trichloroethene		70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver									
Dissolved Silver									
Total Cadmium									
Dissolved Cadmium									
Total Chromium									
Dissolved Chromium									
Total Lead									
Dissolved Lead									
Total Copper									
Dissolved Copper									
Total Nickel									
Dissolved Nickel									
Total Zinc									
Dissolved Zinc									

Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits

Metals were not sampled and analyzed

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-22						
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-22	MW-22A	MW-22B	MW-22C	MW-22	MW-22	MW-22
Sample Depth (well screen interval) (ft. bgs)			98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7
Passive Diffusion Bag Sample Depth (ft. btoc)				100-101.5	105-106.5	110-111.5	100-101.5	100-101.5	100-101.5
Date Sampled		*Highest RRS*	9/10/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004	4/7/2008	6/1/2010
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton
Purge Method/Sample Method			PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
cis-1,2-Dichloroethene		1,000	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0
Methylene chloride		180	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Toluene		6,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Trichloroethene		70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0
Vinyl Chloride		4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver									
Dissolved Silver									
Total Cadmium									
Dissolved Cadmium									
Total Chromium									
Dissolved Chromium									
Total Lead									
Dissolved Lead									
Total Copper									
Dissolved Copper									
Total Nickel									
Dissolved Nickel									
Total Zinc									
Dissolved Zinc									

Metals were not sampled and analyzed

TABLE 4.5: SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number			MW-23							MW-24				MW-25	MW-26	MW-27	MW-28
Sample ID	**VRP Delineation Criteria 12-8-108(1)(A)**		MW-23	MW-23A	MW-23B	MW-23C	MW-23	MW-23	MW-23	MW-24	MW-24	MW-24	MW-24	MW-25	MW-26	MW-27	MW-28
Sample Depth (well screen interval) (ft. bgs)			91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	136.9'-146.7'	136.9'-146.7'	136.9'-146.7'	136.9'-146.7'	91.8-106.8'	1.0-6.0'	2.2-7.2'	2.1-7.1'
Sample Depth (well screen interval) (ft. btoc)	**Site Background Concentrations**		90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	136.7'-146.5'	136.7'-146.5'	136.7'-146.5'	136.7'-146.5'	91.5-106.5'	4.9-9.9'	5.0-10.0'	5.0-10.0'
Passive Diffusion Bag Sample Depth (ft. btoc)		*Highest RRS*	92.1-93.6	92.1-93.6	97.1-98.6	102.1-103.5	92.1-93.6	92.1-93.6	92.1-93.6			143.3'-144.8'	143.3'-144.8'				
Date Sampled			9/11/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004	4/7/2008	6/1/2010	10/12/2004	10/28/2004	4/7/2008	6/1/2010	6/24/2010	10/20/2010	10/20/2010	10/20/2010
Laboratory		(µg/L)	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL Savannah	STL North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton	AES	AES	AES
Purge Method/Sample Method			PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	PumpLFLS/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	PumpLFLS	PumpLFLS	PumpLFLS	PumpLFLS
Constituent																	
Volatile Organic Compounds - SW8260B - (µg/L)																	
1,1,1-Trichloroethane		25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<1.0	<83	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<1.0	<83	<5.0	<5.0	<5.0
Chloroform	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<1.0	<83	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		1,000	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<5.0	<2.5	<1.0	**820**	<5.0	**5.2**	**9.4**
Methylene chloride		180	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<1.0	<83	<5.0	<5.0	<5.0
Toluene		6,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<1.0	<83	<5.0	<5.0	<5.0
Trichloroethene		70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<1.0	**2800**	<5.0	**10**	<5.0
Vinyl Chloride		4.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0	<1.0	<83	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)		12	na	na	na	na	na	na	na	na	na	na	na	<17	na	na	na
Site-Specific Metals - SW6010B - (mg/L)																	
Total Silver																	
Dissolved Silver																	
Total Cadmium																	
Dissolved Cadmium																	
Total Chromium																	
Dissolved Chromium																	
Total Lead																	
Dissolved Lead																	
Total Copper																	
Dissolved Copper																	
Total Nickel																	
Dissolved Nickel																	
Total Zinc																	
Dissolved Zinc																	

Metals were not sampled and analyzed

Metals were not sampled and analyzed

Notes:

na	Constituent not analyzed
bgs	Below ground surface
ft. bgs	Feet below ground surface
B	Result may be a false positive or biased high based upon blank data.
E	Estimated concentration
btoc	Below top of well casing
mg/L	Milligrams per liter
ug/L	Micrograms per liter
PumpLFLS	Well was purged using the low flow/low stress method with a submersible
Bailer	Grundfos pump and clean dedicated tubing and the groundwater sample was collected using a disposable teflon bailer and rope.
Bailer/Bailer	Well was purged and sampled with a bailer.
RRS	Risk Reduction Standard
no purge/PD	Well was not purged, groundwater sample collected with Passive Diffusion Bag Sampler
	2010 Sample Concentration exceeds Types 1-4 RRSs

Prepared By: CLC 7/1/10, DLH 11/12/10
Checked By: DJH 8/3/10

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES
DETECTED IN GROUND-WATER SAMPLES

Boring Number	**VRP Delineation**	*Highest*	GW-E-1		GW-E-2	GW-E-3			GW-E-4		
Sample ID	**Criteria**	*RRS*	GW-E-1	GW-E-1	GW-E-2	GW-E-3	GW-E-3	GW-E-3	GW-E-4	GW-E-4	GW-E-4
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	34'	48'	55'	44'-48'	52'-56'	56'-60'	44'-48'	48'-52'	60'-61'
Date Sampled	**Site**		9/25/2000	9/26/2000	9/26/2000	10/2/2000	10/2/2000	10/2/2000	9/27/2000	9/27/2000	9/27/2000
Constituent	**Background**										
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<5.0	<5.0	<5.0	**2800**	**13**	**8.2**	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	**440**	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		1,000	<2.5	<2.5	<2.5	<62	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride		180	<5.0	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene		6400	<5.0	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene		70	<5.0	<5.0	**7.7**	1800	**35**	**41**	**16**	<5.0	**5.8**

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES
DETECTED IN GROUND-WATER SAMPLES

Boring Number	**VRP Delineation**	*Highest*	GW-E-5			GW-E-6			GW-E-7		
Sample ID	**Criteria**	*RRS*	GW-E-5	GW-E-5	GW-E-5	GW-E-6	GW-E-6	GW-E-6	GW-E-7	GW-E-7	GW-E-7
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	40'-44'	44'-48'	54'-58'	40'-44'	52'-56'	56'-60'	31'-35'	35'-39'	48'-52'
Date Sampled	**Site**		9/28/2000	9/28/2000	10/10/2000	10/3/2000	10/3/2000	10/4/2000	10/3/2000	10/3/2000	10/3/2000
Constituent	**Background**										
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		1,000	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride		180	<5.0	<5.0	14 B	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene		6400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene		70	**20**	<5.0	<5.0	<5.0	<5.0	<5.0	**8.4**	<5.0	<5.0

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number	**VRP Delineation**	*Highest*	GW-E-8			GW-E-9			GW-E-10		GW-E-11		
Sample ID	**Criteria**	*RRS*	GW-E-8	GW-E-8	GW-E-8	GW-E-9	GW-E-9	GW-E-9	GW-E-10	GW-E-10	GW-E-11	GW-E-11	GW-E-11
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	40'-44'	44'-48'	50'-54'	38'-42'	44'-48'	50'-54'	44'-48'	48'-52'	44'-48'	50'-54'	54'-58'
Date Sampled	**Site**		10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/4/2000	10/5/2000	10/5/2000	10/5/2000
Constituent	**Background**												
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**												
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	**34**	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	**23**	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<5.0
cis-1,2-Dichloroethene		1,000	<2.5	<2.5	<2.5	<3.6	<2.5	<2.5	<2.5	<2.5	**12**	<2.5	<2.5
Methylene chloride		180	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<5.0
Toluene		6400	<5.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<5.0
Trichloroethene		70	**21**	<5.0	**13**	**170**	**38**	**10**	**38**	<5.0	**520**	**26**	**150**

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number	**VRP Delineation**	*Highest*	GW-E-12			GW-E-13			GW-E-14			GW-E-15		
Sample ID	**Criteria**	*RRS*	GW-E-12	GW-E-12	GW-E-12	GW-E-13	GW-E-13	GW-E-13	GW-E-14	GW-E-14	GW-E-14	GW-E-15	GW-E-15	GW-E-15
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	40'-44'	44'-48'	50'-54'	44'-48'	48'-52'	56'-60'	48'-52'	52'-56'	56'-60'	48'-52'	54'-58'	61'-65'
Date Sampled	**Site**		10/5/2000	10/5/2000	10/6/2000	10/9/2000	10/9/2000	10/9/2000	10/6/2000	10/6/2000	10/6/2000	10/11/2000	10/11/2000	10/11/2000
Constituent	**Background**													
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**													
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	**180**	**24**	<170	**500**	**50**	**12**	**1400**	**1300**	**34**	**53**	<5.0	<5.0
1,1-Dichloroethene		950	<120	<17	<170	**210**	**17**	<5.0	**260**	**310**	**7.9**	<25	<5.0	<5.0
Chloroform		80	<120	<17	<170	<100	<10	<5.0	<50	<42	<5.0	<25	<5.0	<5.0
cis-1,2-Dichloroethene		1,000	<62	<8.3	<83	**110**	**9.2**	<2.5	**69**	**68**	<2.5	**13**	<2.5	<2.5
Methylene chloride		180	<120	<17	<170	<100	12 B	12 B	<50	<42	<5.0	39 B	13 B	9.9 B
Toluene		6400	<120	<17	<170	<100	<10	<5.0	<50	<42	<5.0	<25	<5.0	<5.0
Trichloroethene		70	**3900**	**460**	**4200**	**3300**	**280**	**140**	**1500**	**1500**	**67**	610	87	**10**

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES DETECTED IN GROUND-WATER SAMPLES

Boring Number	**VRP Delineation Criteria 12-8-108(1)(A)**	*Highest RRS* (µg/L)	GW-E-16			GW-E-17			GW-E-18		
Sample ID			GW-E-16	GW-E-16	GW-E-16	GW-E-17	GW-E-17	GW-E-17	GW-E-18	GW-E-18	GW-E-18
Sample Depth (ft. bgs)			40'-44'	50'-54'	57'-61'	48'-52'	55'-59'	62'-66'	51'-55'	60'-64'	68'-72'
Date Sampled	**Site Background Concentrations**		10/13/2000	10/13/2000	10/13/2000	10/26/2000	10/26/2000	10/26/2000	10/25/2000	10/25/2000	10/25/2000
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)											
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		1,000	**25**	<2.5	<62	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride		180	14 B	15 B	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene		6400	<5.0	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene		70	**7.9**	<5.0	<120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES
DETECTED IN GROUND-WATER SAMPLES

Boring Number	**VRP Delineation**	*Highest*	GW-E-19			GW-AOC 1-1			GW-AOC 2-1		
Sample ID	**Criteria**	*RRS*	GW-E-19	GW-E-19	GW-E-19	GW-AOC 1-1	GW-AOC 1-1	GW-AOC 1-1	GW-AOC 2-1	GW-AOC 2-1	GW-AOC 2-1
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	51'-55'	59'-63'	70'-74'	40'-44'	52'-56'	59'-63'	42'-46'	52'-56'	62'-66'
Date Sampled	**Site**		10/25/2000	10/25/2000	10/25/2000	10/31/2000	10/31/2000	10/31/2000	10/17/2000	10/17/2000	10/17/2000
Constituent	**Background**										
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	<5.0	<5.0	<5.0	**83000**	**37000**	**1100**	**14**	<5.0	<5.0
1,1-Dichloroethene		950	<5.0	<5.0	<5.0	<4200	**2000**	<50	**9.4**	<5.0	<5.0
Chloroform		80	<5.0	<5.0	<5.0	<4200	<1000	<50	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		1,000	<2.5	<2.5	<2.5	<2100	<500	<25	<2.5	<2.5	<2.5
Methylene chloride		180	17 B	26 B	18 B	<4200	<1000	<50	6.3 B	<5.0	12 B
Toluene		6400	<5.0	<5.0	<5.0	<4200	<1000	<50	<5.0	<5.0	<5.0
Trichloroethene		70	<5.0	<5.0	<5.0	**10000**	**4100**	**120**	**41**	**5.0**	**23**

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES
DETECTED IN GROUND-WATER SAMPLES

Boring Number	**VRP Delineation**	*Highest*	GW-AOC 3-1			GW-AOC 3-2			GW-AOC 8-1		
Sample ID	**Criteria**	*RRS*	GW-AOC 3-1	GW-AOC 3-1	GW-AOC 3-1	GW-AOC 3-2	GW-AOC 3-2	GW-AOC 3-2	GW-AOC 8-1	GW-AOC 8-1	GW-AOC 8-1
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	40'-44'	50'-54'	55'-59'	40'-44'	48'-52'	60'-64'	40'-44'	49'-53'	58'-62'
Date Sampled	**Site**		11/1/2000	11/1/2000	11/1/2000	10/30/2000	10/30/2000	10/30/2000	10/18/2000	10/19/2000	10/19/2000
Constituent	**Background**										
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	**2700**	**1500**	**550**	**5600**	**39**	**9.9**	**3800**	**6.4**	**8.6**
1,1-Dichloroethene		950	**860**	**530**	**200**	**1200**	**13**	<5.0	**790**	<5.0	<5.0
Chloroform		80	<250	<170	<100	<500	<10	<5.0	<500	<5.0	<5.0
cis-1,2-Dichloroethene		1,000	**190**	**100**	**32 J**	**270**	**8.3**	<2.5	**300**	<2.5	<2.5
Methylene chloride		180	<250	<170	<100	<500	<10	<5.0	<500	<5.0	11 B
Toluene		6400	<250	<170	<100	<500	<10	<5.0	<500	<5.0	<5.0
Trichloroethene		70	**7900**	**6300**	2200	**7200**	**230**	**19**	**8600**	**23**	**28**

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES
DETECTED IN GROUND-WATER SAMPLES

Boring Number	**VRP Delineation**	*Highest*	GW-AOC 8-2			GW-AOC 9-1			GW-AOC 9-2		
Sample ID	**Criteria**	*RRS*	GW-AOC 8-2	GW-AOC 8-2	GW-AOC 8-2	GW-AOC 9-1	GW-AOC 9-1	GW-AOC 9-1	GW-AOC 9-2	GW-AOC 9-2	GW-AOC 9-2
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	42'-46'	50'-54'	56'-60'	40'-44'	50'-54'	58'-62'	44'-48'	50'-54'	58'-62'
Date Sampled	**Site**		10/19/2000	10/19/2000	10/19/2000	10/19/2000	10/20/2000	10/20/2000	10/20/2000	10/20/2000	10/20/2000
Constituent	**Background**										
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**										
1,1,1-Trichloroethane	Site Background is defined as the non-detection of regulated substances above laboratory quantitation limits	25,100	**8000**	**55**	**94**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		950	**1300**	**9.2**	**29**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		80	<250	<5.0	<17	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		1,000	**230**	**9.9**	**20**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride		180	840 B	<5.0	<17	13 B	15 B	15 B	<5.0	<5.0	11 B
Toluene		6400	<250	<5.0	<17	<5.0	<5.0	**6.8**	<5.0	**5.9**	<5.0
Trichloroethene		70	**6000**	**170**	**420**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

TABLE 4.5 SUMMARY OF REGULATED SUBSTANCES
DETECTED IN GROUND-WATER SAMPLES

Boring Number	**VRP Delineation**	*Highest*	GW-AOC 10-1			SB-113		SB-114		SB-115		SB-118	
Sample ID	**Criteria**	*RRS*	GW-AOC 10-1	GW-AOC 10-1	GW-AOC 10-1	SB-113	SB-113	SB-114	SB-114	SB-115	SB-115	SB-118	SB-118
Sample Depth (ft. bgs)	**12-8-108(1)(A)**	(µg/L)	44'-48'	52'-56'	60'-64'	43.5'-47.5'	57'-62'	45'-48'	60'-65'	24'-27'	33'-37'	6'-10'	17'-21'
Date Sampled	**Site**		10/18/2000	10/18/2000	10/18/2000	2/5/2003	2/5/2003	2/5/2003	2/6/2003	3/13/2003	3/13/2003	3/26/2003	3/26/2003
Constituent	**Background**												
Volatile Organic Compounds - SW8260B - (µg/L)	**Concentrations**												
1,1,1-Trichloroethane		25,100	**2700**	**9.4**	**77**	<3.3	<1.0	**270**	**2.7**	<42	<5.0	<17	<5.0
1,1-Dichloroethene		950	**430**	<5.0	**19**	<3.3	<1.0	**72**	<1.0	<42	<5.0	<17	<5.0
Chloroform	Site Background is	80	<170	<5.0	<10	<3.3	**1.2**	<25	**1**	<42	<5.0	<17	<5.0
cis-1,2-Dichloroethene	defined as the non-	1,000	<83	<2.5	**11**	<1.7	<0.5	**27**	<0.5	<21	<2.5	**9.6**	<2.5
Methylene chloride	detection of regulated	180	<170	<5.0	<10	<3.3	<1.0	<25	<1.0	<42	<5.0	<17	<5.0
Toluene	substances above	6400	<170	<5.0	<10	<3.3	<1.0	<25	<1.0	<42	<5.0	<17	<5.0
Trichloroethene	laboratory quantitation limits	70	**2000**	**27**	**260**	**93**	**20**	700	**13**	**780**	<5.0	**560**	**32**

Notes:

na	Constituent not analyzed
bgs	Below ground surface
ft. bgs	Feet below ground surface
B	Result may be a false positive or biased high based upon blank data.
btoc	Below top of well casing
mg/L	Milligrams per liter
µg/L	Micrograms per liter
GW	Designates that groundwater sample was collected from a direct push technology (DPT) boring.
SB	Designates that groundwater sample was collected from a DPT boring or via rotosonic soil coring.
RRS	Risk Reduction Standard
J	Estimated; result detected below the reporting limit but above the method detection limit or result is estimated based on the QC data.
	Concentration exceeds Types 1-4 RRSs

Prepared By: RNQ 2/22/07
Checked By: JAH 2/23/07

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		Manson Branch #1			Manson Branch #2											
Sample Location		Surface water in Manson Branch south side of Hwy 24 Bridge			Seep in a Draw Down Slope of Thermo King plant building											
Sample Date	Georgia Instream Water Quality Criter (µg/L)	5/3/2000			5/3/2000			11/2/2000	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010	6/2/2010
Laboratory		Lancaster Labs	STL-North Canton	Savannah Labs	Lancaster Labs	STL-North Canton	Savannah Labs	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton
CONSTITUENT (µg/L)																
1,1,1-Trichloroethane	not established	<5.0	<5.0	<5.0	**200**	**160**	**170**	**290**	**15**	**39**	**300**	**1900**	**320**	**8.4**		**61**
1,1-Dichloroethene	7100	<5.0	<5.0	<5.0	**69**	**50**	**52**	**97**	**12**	**24**	<250	**1000**	**210**	**11**		**160**
cis-1,2-Dichloroethene	not established	<5.0	<2.5	<5.0	**36**	**30**	**27**	**59**	**36**	**61**	<250	<620	<190	**89**	DRY	**180**
Toluene	5,980	<5.0	<5.0	<5.0	<5.0	<17.0	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	Not Sampled	<50
trans-1,2-Dichloroethene	10,000	<5.0	<2.5	<5.0	<5.0	<8.3	<5.0	<25.0	<2.0	<6.7	<250	<620	<190	<2.5		<50
Trichloroethene	30	<5.0	<5.0	<5.0	**490**	**460**	**440**	**720**	**120**	**210**	**1300**	**4400**	**930**	**310**		**1700**
Vinyl Chloride	2.4	<2.0	<5.0	<5.0	<2.0	<6.7	<2.0	<10.0	<4.0	<6.7	<100	<250	<77	<4.0		<50
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established				na	na	na	na	na	na	na	na	na	na		na

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		**Manson Branch #3**	**Manson Branch #4**	**Manson Branch #5**	**Manson Branch #6**	**Manson Branch #7**	**Manson Branch #8**	**Manson Branch #9**	**Manson Branch #10**	**Manson Branch #11**	**Manson Branch #12**
Sample Location		**Surface water in Manson Branch located 500 ft downstream of Hwy 24**	**Surface water in Manson Branch located 700 ft downstream of Hwy 24**	**Surface water in Manson Branch located 900 ft downstream of Hwy 24**	**Surface water in Manson Branch located 1100 ft downstream of Hwy 24**	**Surface water in Manson Branch located 1300 ft downstream of Hwy 24**	**Surface water in Manson Branch located 1575 ft downstream of Hwy 24**	**Surface water in Manson Branch located 2900 ft upstream of Hwy 17**	**Surface water in Manson Branch located 2100 ft upstream of Hwy 17**	**Surface water in Manson Branch located 1200 ft upstream of Hwy 17**	**Surface water in Manson Branch located at Hwy 17 bridge**
Sample Date	**Georgia Instream Water Quality Criter (µg/L)**	**6/7/2000**	**6/7/2000**	**6/7/2000**	**6/7/2000**	**6/7/2000**	**6/7/2000**	**6/6/2000**	**6/6/2000**	**6/6/2000**	**6/6/2000**
Laboratory		**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**
CONSTITUENT (µg/L)											
1,1,1-Trichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Toluene	5,980	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10,000	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Trichloroethene	30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	2.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	na	na	na	na	na	na	na	na	na	na

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		Manson Branch #14			Manson Branch #15			Manson Branch #16		
Sample Location		Surface water in Manson Branch located at Hwy 24 bridge			Surface water in Manson Branch located about 450 ft downstream of Hwy 24 bridge			Surface water in Manson Branch located about 700 ft downstream of Hwy 24 bridge		
Sample Date	Georgia Instream Water Quality Criter (µg/L)	1/15/2003	2/26/2008	4/22/2010	1/15/2003	2/27/2008	4/21/2010	1/15/2003	2/27/2008	4/21/2010
Laboratory		STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	<0.50	<2.5	<2.5	<0.50	<2.5	<2.5	<0.50	<2.5	<2.5
Toluene	5,980	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0
trans-1,2-Dichloroethene	10,000	<0.50	<2.5	<2.5	<0.50	<2.5	<2.5	<0.50	<2.5	<2.5
Trichloroethene	30	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<1.0	<2.0	<2.0	<1.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	na	na	na	na	na	na	na	na	na

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		**Manson Branch Seep West #2 (Seep #2)**								
Sample Location		**Seep Located 350 ft downstream of Hwy 24 on the west bank**								
Sample Date	**Georgia Instream Water Quality Criter (µg/L)**	**6/7/2000**	**11/2/2000**	**1/15/2003**	**3/24/2004**	**6/23/2004**	**8/30/2004**	**11/17/2004**	**2/27/2008**	**4/21/2010**
Laboratory		**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**TestAmerica - North Canton**	**TestAmerica - North Canton**
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	**3.8**	**7.9**	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5
Toluene	5,980	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10,000	<2.5	<2.5	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5
Trichloroethene	30	<5.0	**5.4**	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	2.4	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	na	na	na	na	na	na	na	na	na

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		Seep A							Seep B							
Sample Location		Northeast CornerThermo King Eastern Parcel							Thermo King Eastern Parcel							
Sample Date	Georgia Instream Water Quality Criter (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/21/2010	1/15/2003	3/24/2004	6/23/2004	8/30/2004	11/17/2004	2/27/2008	4/21/2010	6/3/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton
CONSTITUENT (µg/L)																
1,1,1-Trichloroethane	not established	<1.0		<5.0	<5.0		<5.0		<1.0	<5.0	<5.0	<5.0	**10**	<5.0		
1,1-Dichloroethene	7100	<1.0		<5.0	<5.0		<5.0		<1.0	<5.0	<5.0	<5.0	<8.4	<5.0		
cis-1,2-Dichloroethene	not established	<0.50	DRY	<5.0	<5.0	DRY	<2.5	DRY	<0.50	<5.0	<5.0	<5.0	**16**	<2.5	DRY	DRY
Toluene	5,980	<1.0	Not Sampled	<5.0	<5.0	Not Sampled	<5.0	Not Sampled	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0	Not Sampled	Not Sampled
trans-1,2-Dichloroethene	10,000	<0.50		<5.0	<5.0		<2.5		<0.50	<5.0	<5.0	<5.0	<8.4	<2.5		
Trichloroethene	30	<1.0		<5.0	<5.0		<5.0		<1.0	<5.0	<5.0	<5.0	**41**	<5.0		
Vinyl Chloride	2.4	<1.0		<2.0	<2.0		<2.0		<1.0	<2.0	<2.0	<2.0	<3.3	<2.0		
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	na		na	na		na		na	na	na	na	na	na		

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		Seep C								Seep D						
Sample Location		Thermo King Eastern Parcel								Thermo King Eastern Parcel						
Sample Date	Georgia Instream Water Quality Criter (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010	6/2/2010	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton
CONSTITUENT (µg/L)																
1,1,1-Trichloroethane	not established	**120**	<140	<5.0	**380**	**380**	**49**	**28**	na	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	**110**	<140	<5.0	<310	**240**	**99**	**64**	na	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	**13**	<140	<5.0	<310	<190	**11**	**12**	na	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5
Toluene	5,980	<25	<140	<5.0	<310	<190	<10	<12	na	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10,000	<12	<140	<5.0	<310	<190	<5.0	<12	na	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5
Trichloroethene	30	**840**	**720**	<5.0	**1300**	**1000**	**670**	**500**	na	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	2.4	<25	<57	<2.0	<120	<77	<2.0	<12	na	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	na	na	na	na	na	na	na	<5.0	na	na	na	na	na	na	na

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		**Seep G**						
Sample Location		**Thermo King Eastern Parcel**						
Sample Date	**Georgia Instream Water Quality Criter (µg/L)**	**1/15/2003**	**3/24/2004**	**6/23/2004**	**8/31/2004**	**11/17/2004**	**2/26/2008**	**4/21/2010**
Laboratory		**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**TestAmerica - North Canton**	**TestAmerica - North Canton**
CONSTITUENT (µg/L)								
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	**0.73**	**13**	**9.3**	<7.2	<5.0	<2.5	**7.7**
Toluene	5,980	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10,000	<0.50	<5.0	<5.0	<7.2	<5.0	<2.5	<2.5
Trichloroethene	30	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	**7.8**
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<2.9	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	na	na	na	na	na	na	na

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		Seep H								Seep I						
Sample Location		Thermo King Eastern Parcel								Thermo King Eastern Parcel						
Sample Date	Georgia Instream Water Quality Criter (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/21/2010	6/3/2010	1/15/2003	3/24/2004	6/23/2004	8/30-31/2004	11/17/2004	2/27/2008	4/22/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton
CONSTITUENT (µg/L)																
1,1,1-Trichloroethane	not established	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0	<2.0	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	**6.0**	**12**	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	**6.9**	**12**	**30**	**13**	**27**	<2.5	**26**	**63**	<0.50	<5.0	<5.0	DRY	<5.0	<2.5	<2.5
Toluene	5,980	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0	<2.0	<1.0	<5.0	<5.0	not sampled	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10,000	<0.50	<5.0	<8.4	<5.0	<5.0	<2.5	<2.5	<2.0	<0.50	<5.0	<5.0		<5.0	<2.5	<2.5
Trichloroethene	30	**24**	**15**	<8.4	<5.0	**7.1**	**5.1**	**38**	**41**	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0
Vinyl Chloride	2.4	<1.0	<2.0	<3.3	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0		<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	na	na	na	na	na	na	na	na	na	na	na		na	na	na

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		Seep J							Seep K					
Sample Location		Thermo King Eastern Parcel							Northeast CornerThermo King Eastern Parcel					
Sample Date	Georgia Instream Water Quality Criter (µg/L)	5/14/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/22/2010	3/24/2004	6/24/2004	8/31/2004	11/17/2004	2/26/2008	4/22/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	TestAmerica - North Canton	TestAmerica - North Canton
CONSTITUENT (µg/L)														
1,1,1-Trichloroethane	not established	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	**910**	**84**	**66**	**190**	**110**	<2.5	<2.5	**10**	<5.0	**85**	<5.0	**12**	**5.3**
Toluene	5,980	**280**	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10,000	**13**	<5.0	<12.0	<33	<25	<2.5	<2.5	<5.0	<5.0	<20	<5.0	<2.5	<2.5
Trichloroethene	30	<25	<5.0	<12.0	<33	<25	<5.0	<5.0	<5.0	<5.0	<20	<5.0	**13**	**5.8**
Vinyl Chloride	2.4	<25	**26**	<5.0	<13	**11**	<2.0	<2.0	<2.0	<2.0	<8	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	na	na	na	na	na	na	na	na	na	na	na	na	na

TABLE 4.6: SUMMARY OF DETECTED CONSTITUENTS IN SEEPS AND SURFACE WATER

Sample Identification		**Seep L**						
Sample Location		**Northeast CornerThermo King Eastern Parcel**						
Sample Date	**Georgia Instream Water Quality Criter (µg/L)**	**3/24/2004**	**6/24/2004**	**8/31/2004**	**11/17/2004**	**2/27/2008**	**4/21/2010**	**6/3/2010**
Laboratory		**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**TestAmerica - North Canton**	**TestAmerica - North Canton**	**TestAmerica - North Canton**
CONSTITUENT (µg/L)								
1,1,1-Trichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0
1,1-Dichloroethene	7100	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0
cis-1,2-Dichloroethene	not established	**5.4**	<5.0	<5.0	<5.0	<2.5	DRY	<1.0
Toluene	5,980	<5.0	<5.0	<5.0	<5.0	<5.0	Not Sampled	<1.0
trans-1,2-Dichloroethene	10,000	<5.0	<5.0	<5.0	<5.0	<2.5		<1.0
Trichloroethene	30	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0
Vinyl Chloride	2.4	<2.0	<2.0	<2.0	<2.0	<2.0		<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	na	na	na	na	na		na

Notes:

µg/L	micrograms per liter
Hwy	Highway
na	Sample not analyzed for this constituent
E	Estimated; result exceeds calibration range
(a)	Georgia Instream Surface Water GADNR February 2009 Rules and Regulations for Water Quality Control (ISWQC)
	Exceeds Georgia ISWQC
BOLD	**Detected Concentration**

PREPARED BY/DATE: CLC 5/14/08 updated RNQ 6/16/2010
CHECKED BY/DATE: DJH 8/3/10

TABLE 5.1
COMPARISON OF 2010 SEEP WATER CONCENTRATIONS TO AQUATIC WILDLIFE SCREENING VALUES

Parameter	Frequency of Detection (a)	Minimum Seep Concentration (ug/L)	Maximum Seep Concentration (ug/L)	Region IV Ecological Freshwater Surface Water Screening Values (ug/L)	Georgia Instream Surface Water (b) (ug/L)	Ecological ORNL Freshwater Surface Water Screening Values (ug/L) (c)	Exceedance Yes/No	Exposure Point Concentration (ug/L) (d)
Volatile Organic Compounds (ug/L):								
1,1-Dichloroethene*	4/14	6.0	160	303	7100	25	Yes	160
cis-1,2-Dichloroethene	6/14	5.3	180	NA	NA	590	No	NA
1,1,1-Trichloroethane*	2/14	28	61	528	NA	11	Yes	61
Trichloroethene*	6/14	5.8	1,700	NA	30	47	Yes	1,700

Notes:

* Indicates constituent selected as a chemical of potential concern (ECOPC), based on Ecological Screening Values.

NA = Not available

(a) Number of samples in which chemical was positively detected / number of samples available for 2010.
Screening criteria is surface water screening values collected from:

(b) Ga DNR, 2009. Georgia Department of Natural Resources, Rules and Regulations for Water Quality Control, Chapter 391-3-6, February, 2004.

(c) Suter, G.W. II, and C.L. Tsao. 1996. Toxicological Benchmarks for screening of Potential Contaminants of Concern for Effects on Aquatic Biota on Oak Ridge Reservation: 1996 Revision. Oak Ridge National Laboratory, Oak Ridge, TN. 104 pp. ES/ER/RM-96/R2.
Value listed for cis-1,2-dichlorothene from ORNL is for total 1,2-dichloroethene.

(d) Maximum detected concentration

[ ] Indicates maximum constituent concentration exceeds the screening criteria.

Exposure point concentrations are the maximum concentration for COPCs.

Prepared By: CMB 9/18/10
Checked By: MKB 9/27/10

TABLE 5.2
SUMMARY OF ECOLOGICAL RISKS IN SURFACE SOIL (0 - 1 ft.)

Parameter	Frequency of Detection (a)	Minimum Detected Concentration (mg/kg)	Maximum Detected Concentration (mg/kg)	Dutch Ministry 2000 Values mg/kg (b)	Exposure Point Concentration (mg/kg) (c)
Volatile Organic Compounds:					
Isopropylbenzene*	1/39	0.016	0.016	NA	0.016
Tetrachloroethene*	1/39	0.013	0.013	0.002	0.013
Trichloroethene **	2/39	0.015	0.023	0.1	0.023

* Indicates constituent selected as chemical of potential concern (ECOPC), based on Ecological Screening Values.

** Indicates constituent selected as chemical of potential concern (ECOPC), based on the selection of this chemical as an ECOPC in seep water.

NA Not Applicable

Indicates maximum constituent concentration exceeds the screening criteria.

(a) Number of samples in which chemical was positively detected / number of samples available.
(surface soil samples collected from non-paved areas and from areas not covered by a building)

(b) Dutch Ministry Values, 2000. Annexes Circular on target values and intervention values for soil remediation, Ministerie van Volkshulsvesting, February 4, 2000. Updates values used by the Region 4 Bulletins.

(c) Exposure point concentration is the maximum concentration for the ECOPC.

Prepared By: EJS 1/22/10
Checked By: EFC 1/22/10

TABLE 5.3
SHORT TAILED SHREW TOXICITY REFERENCE VALUES

ANALYTE	NOAEL (mg/kg-BW-day)	TEST SPECIES	EFFECT	BODY WEIGHT OF TEST SPECIES (kg)	SHORT-TAILED SHREW TRV (mg/kg-BW-day)	REFERENCE
1,1-Dichloroethene	30	rat	Chronic NOAEL	0.35	66	Sample et al., 1996
1,1,1-Trichloroethane	1,000	mouse	Chronic NOAEL	0.035	1,216	Sample et al., 1996
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.4	mouse	Subchronic NOAEL	0.03	1.64	Sample et al., 1996
Trichloroethene	0.7	mouse	Subchronic NOAEL	0.03	0.82	Sample et al., 1996

Notes:
mg/kg-BW-day = milligrams per kilogram body weight per day
kg = kilogram
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Value
NA = Not available

Prepared By: EJS 1/22/10
Checked By: EFC 1/22/10

TABLE 5.4
RACCOON TOXICITY REFERENCE VALUES

ANALYTE	NOAEL (mg/kg-BW-day)	TEST SPECIES	EFFECT	BODY WEIGHT OF TEST SPECIES (kg)	RACCOON TRV (mg/kg-BW-day)	REFERENCE
1,1-Dichloroethene	30	Rat	Chronic NOAEL	0.35	16.3	Sample et al., 1996
1,1,1-Trichloroethane	1000	Mouse	Chronic NOAEL	0.035	310	Sample et al., 1996
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.4	Mouse	Subchronic NOAEL	0.03	0.41	Sample et al., 1996
Trichloroethene	0.7	Mouse	Subchronic LOAEL	0.03	0.21	Sample et al., 1996

Notes:
mg/kg-BW-day = milligrams per kilogram body weight per day
kg = kilogram
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Value
NA = Not available

Prepared By: EJS 1/22/10
Checked By: EFC 1/22/10

TABLE 5.5
NORTHERN BOBWHITE TOXICITY REFERENCE VALUES

ANALYTE	NOAEL (mg/kg-BW-day)	TEST SPECIES	EFFECT	BODY WEIGHT OF TEST SPECIES (kg)	NORTHERN BOBWHITE TRV (mg/kg-BW-day)	REFERENCE
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA

Notes:
mg/kg-BW-day = milligrams per kilogram body weight per day
kg = kilogram
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Value
NA = Not available

Prepared By: EJS 1/22/10
Checked By: EFC 1/22/10

TABLE 5.6
SHORT-TAILED SHREW EXPOSURE PARAMETERS

EXPOSURE PARAMETER (a)	DESCRIPTION (a)	VALUES SELECTED FOR EXPOSURE/RISK CALCULATIONS (a)
Short-Tailed Shrew	Order: *Insectivora* Family: *Soricidae* Genus: *Blarina* Species*: blevicauda*	
Body Weight (BW)(kg)	The average body weight for males and females in a summer study (Pennsylvania).	0.015 kg
Dietary Makeup	The short-tailed shrew is primarily carnivorous. Diet consists primarily of invertebrates. Small mammals are consumed when invertebrates become less available (New York).	Invertebrates – 70% Vegetation – 13% Small mammals – 8% Soil – 9%
Ingestion Rate for Food (IR_F) (kg/day)	Food ingestion rate of the short-tailed shrew (Ohio/lab).	0.009 kg/day
Ingestion Rate for Water (IR_W) (L/day)	Water ingestion rate of the short-tailed shrew (Illinois/lab) using an average adult BW of 18 grams and an average water ingestion rate of 0.223 g water/g BW/day. (0.223 g water/g BW/day x 18 g BW x 1.04E-03 L/day)	0.0033 L/day
Home Range	The average female home range in a Manitoba tamarack bog or in Michigan bluegrass is approximately 1 acre. The maximum male home range in Michigan bluegrass is approximately 4.5 acres.	1 acre (43,560 ft^2)
Site Foraging Frequency (SFF) (unitless)	The SFF is the ratio of the site area to home range, not to exceed a maximum value of 1.0. As a conservative assumption, the river segment evaluated is considered representative of the shrew's entire home range.	1 (Maximum exposure scenario)
Exposure Frequency (unitless) (EF)	Shrews are active all year round and do not hibernate.	1

TABLE 5.6
SHORT-TAILED SHREW EXPOSURE PARAMETERS

(a) Wildlife Exposure Factors Handbook (USEPA, 1993)

$$\text{Estimated ingestion (mg/kg-day)} = \frac{SFF \times IR_F \times EF \times [(C_{SOIL} \times BCF_{INV} \times P_{INV}) + (C_{SOIL} \times BCF_V \times P_V) + (C_{SOIL} \times BCF_M \times P_M) + (C_{SOIL} \times P_{SOIL})]}{BW} + \frac{(C_W \times IR_W \times EF)}{BW}$$

Where:	P_{INV}	=	Proportion of the diet comprised of invertebrates (unitless)
	P_{SOIL}	=	Proportion of the diet comprised of soil (unitless)
	P_V	=	Proportion of the diet comprised of vegetation (unitless)
	P_M	=	Proportion of the diet comprised of mammals (unitless)
	C_{SOIL}	=	Chemical concentration in soil (mg/kg)
	C_W	=	Chemical concentration in water (mg/L)
	IR_F	=	Ingestion rate of food (kg/day)
	IR_W	=	Ingestion rate of water (L/day)
	SFF	=	Site foraging frequency (unitless)
	EF	=	Exposure frequency (unitless)
	BW	=	Body weight (kg)
	BCF_{INV}	=	Bioconcentration factor for invertebrates (unitless)
	BCF_V	=	Bioconcentration factor for vegetation (unitless)
	BCF_M	=	Bioconcentration factor for mammals (unitless)

mg/L = milligrams per liter
kg = kilograms
% = percent
kg/day = kilograms per day
L/day = liters per day
mg/kg = milligrams per kilogram
ft^2 = square feet
g water/g BW/day = gram water per gram body weight per day
mg/kg-day = milligrams per kilogram per day

Prepared By: JCB 2/21/07
Checked By: EFC 2/23/07

TABLE 5.7
RACCOON EXPOSURE PARAMETERS

EXPOSURE PARAMETER (a)	DESCRIPTION (a)	VALUES SELECTED FOR EXPOSURE/RISK CALCULATIONS (a)
Raccoon	Order: *Carnivora* Family: *Procyonidae* Genus: *Procyon* Species*: lotor*	
Body Weight (BW)(kg)	Adult males are typically larger than adult females. The average body weight for adults is 3.99 kg, but ranges up to 8.8 kg (Alabama).	3.99 kg
Dietary Makeup	Raccoons are omnivorous and opportunistic feeders. The proportion of different foods in their diet depends on the location and season (annual average for Tennessee were used). Averaging and totaling each dietary item in the WEFH totals to 98%. The remaining 2% of dietary intake was added to vegetation. For the purposes of the risk calculation and due to the lack of crayfish and amphibians at the site, the proportion for the diet for crayfish, amphibians, and insects are assumed to be soil invertebrates.	Soil Invertebrates – 11% Birds – 3% Vegetation –82% Soil – 4%
Ingestion Rate for Food (IR_F) (kg/day)	The average BW of 3.99 kg was used to estimate the Ingestion Rate for Food using: IR_F(kg/day) = 0.0687 x $BW^{0.822}$ (kg).	0.21 kg/day
Ingestion Rate for Water (IR_W) (L/day)	The Ingestion Rate for Water was estimated using the average BW of 3.99 kg and a mean water ingestion rate of 0.0825 g/g-day. (0.0825 g water/g BW/day x 3,990 g BW x 1.0E-03 L/g = 0.33 L/day)	0.33 L/day
Home Range	Average for males and females, May to December from riparian habitat (Michigan).	386 acres
Site Foraging Frequency (SFF) (unitless)	The SFF is the ratio of the site area to home range, not to exceed a maximum value of 1.0. As a conservative assumption, the site evaluated is considered representative of the raccoon's home range.	SFF=1 (Maximum exposure scenario)
Exposure Frequency (EF) (unitless)	Raccoons are active all year round and do not hibernate.	1

TABLE 5.7
RACCOON EXPOSURE PARAMETERS

(a) Wildlife Exposure Factors Handbook (USEPA, 1993)

$$\text{Estimated ingestion (mg/kg-day)} = \frac{SFF \times IR_F \times EF \times [(C_{SOIL} \times P_{SOIL}) + (C_{SOIL} \times BCF_{SI} \times P_{SI}) + (C_{SOIL} \times BCF_V \times P_V) + (C_{SOIL} \times BCF_B \times P_B)]}{BW} + \frac{(C_W \times IR_W \times EF)}{BW}$$

Where:

P_{SOIL}	=	Proportion of the diet comprised of surface soil (unitless)
P_{SI}	=	Proportion of the diet comprised of soil invertebrates (unitless)
P_V	=	Proportion of the diet comprised of vegetation (unitless)
P_B	=	Proportion of the diet comprised of birds (unitless)
C_{SI}	=	Chemical concentration in soil invertebrates (mg/kg)
C_{SOIL}	=	Chemical concentration in surface soil (mg/kg)
C_W	=	Chemical concentration in water (mg/L)
IR_F	=	Ingestion rate of food (kg/day)
IR_W	=	Ingestion rate of water (L/day)
SFF	=	Site foraging frequency (unitless)
EF	=	Exposure frequency (unitless)
BW	=	Body weight (kg)
BCF_{SI}	=	Bioconcentration factor for soil invertebrates (unitless)
BCF_B	=	Bioconcentration factor for birds (unitless)
BCF_V	=	Bioconcentration factor for vegetation (unitless)

kg = kilograms
% = percent
kg/day = kilograms per day
L/day = liters per day
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
WEFH = Wildlife Exposure Factors Handbook
mg/kg –day = milligrams per kilogram per day

Prepared By: JCB 2/22/07
Checked By: EFC 2/23/07

TABLE 5.8
NORTHERN BOBWHITE EXPOSURE PARAMETERS

EXPOSURE PARAMETER (a)	DESCRIPTION (a)	VALUES SELECTED FOR EXPOSURE/RISK CALCULATIONS (a)
Northern Bobwhite	Order: *Galliformes* Family: *Phasiadinae* Genus: *Colinus* Species*: virginianus*	
Body Weight (BW)(kg)	Average adult weight is 0.16 kg, but ranges from 0.154 to 0.161 kg (Texas).	0.16 kg
Dietary Makeup	Northern bobwhites feed primarily on vegetation found in idle farms, woods, and brush. Some insects may also be consumed depending on availability. Dietary percentages are based on measurements in the southeastern United States.	Vegetation – 84% Invertebrates – 14% Soil – 2%
Ingestion Rate for Food (IR_F) (kg/day)	Food ingestion rate based on a mixed study of males and consisting of an earthworm diet (Texas). The mean food ingestion rate (0.078 g food/g BW/day) and average adult BW of 0.16 kg were used to estimate the Food Ingestion Rate. (0.078 g food/g BW/day x 160 g BW = 120 g/day)	0.012 kg/day
Ingestion Rate for Water (IR_W) (L/day)	Water ingestion rate is calculated using the average adult BW of 0.16 kg and an estimated mean ingestion rate of 0.12 g water/g BW/day). (0.12 g water/g BW/day x 160 g BW x 1.0E-03 L/g = 0.019 L/day)	0.019 L/day
Home Range	The average home range for male and female, adults and juveniles is 6.8 acres (Tennessee).	6.8 acres
Site Foraging Frequency (SFF) (unitless)	The SFF is the ratio of the site area to home range, not to exceed a maximum value of 1.0.	SFF = 1 (Maximum exposure scenario)
Exposure Frequency (unitless) (EF)	The northern bobwhite is a year-round resident.	1

TABLE 5.8
NORTHERN BOBWHITE EXPOSURE PARAMETERS

(a) Wildlife Exposure Factors Handbook (USEPA, 1993)

$$\text{Estimated ingestion (mg/kg-day)} = \frac{SFF \times IR_F \times EF \times [(C_{SOIL} \times BCF_{INV} \times P_{INV}) + (C_{SOIL} \times BCF_V \times P_V) + (C_{SOIL} \times P_{SOIL})]}{BW} + \frac{(C_W \times IR_W \times EF)}{BW}$$

Where:

P_{INV}	=	Proportion of the diet comprised of invertebrates (unitless)
P_{SOIL}	=	Proportion of the diet comprised of soil (unitless)
P_V	=	Proportion of the diet comprised of vegetation (unitless)
C_W	=	Chemical concentration in water (mg/L)
C_{SOIL}	=	Chemical concentration in soil (mg/kg)
IR_F	=	Ingestion rate of food (kg/day)
IR_W	=	Ingestion rate of water (L/day)
SFF	=	Site foraging frequency (unitless)
EF	=	Exposure frequency (unitless)
BW	=	Body weight (kg)
BCF_{INV}	=	Bioconcentration factor for invertebrates (unitless)
BCF_V	=	Bioconcentration factor for vegetation (unitless)

kg = kilograms
% = percent
kg/day = kilograms per day
L/day = liters per day
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
mg/kg-day = milligrams per kilograms per day

Prepared By: JCB 2/20/07
Checked By: EFC 2/23/07

TABLE 5.9
NOAEL RISK CALCULATION FOR THE SHORT-TAILED SHREW

Analyte	Soil Exposure Point Concentration (mg/kg)	Water Exposure Point Concentration (mg/L)	Exposure Value Type	BCF_{INV}	BCF_V	BCF_M	Intake (mg/kg-day)	NOAEL TRVs (mg/kg-day)	Hazard Quotient
1,1-Dichloroethene	0.001	0.160	max	3.97E+00	2.27E+00	5.06E-10	3.7E-02	6.6E+01	0.00056
1,1,1-Trichloroethane	0.001	0.061	max	7.68E+00	1.43E+00	5.06E-10	1.7E-02	1.2E+03	0.000014
Isopropylbenzene	0.016	0.0005	max	5.35E+01	3.60E-01	5.06E-10	3.6E-01	NA	NA
Tetrachloroethene	0.013	0.0025	max	1.10E+01	1.11E+00	5.06E-10	6.2E-02	1.6E+00	0.038
Trichloroethene	0.023	1.70	max	1.18E+01	1.05E+00	5.06E-10	4.9E-01	8.20E-01	0.60
								Hazard Index:	0.64

BCF_M = Bioconcentration factor for mammals based on vinyl chloride (USEPA, 1999)
BCF_{INV} = Bioconcentration factor for invertebrates based on vinyl chloride (USEPA, 1999)
BCF_V = Bioconcentration factor for vegetation
NA = Not available
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Values (Sample et al, 1996)
mg/kg = milligrams per kilograms
mg/L = milligrams per liter
max = maximum concentration of seeps
mg/kg-day = milligrams per kilogram per day
Equations:
HQ = Intake / NOAEL TRV
HI = Sum of HIs

PREPARED/DATE: EJS 1/22/10
CHECKED/DATE: EFC 1/22/10
REVISED BY/DATE: CMB 9/15/10
CHECKED BY/DATE: MKB 9/27/10

NOTES: 1,1-DCE, 1,1,1-TCE - soil concentration is 1/2 lowest detection limit
Tetrachloroethene water concentration is 1/2 lowest detection limit

TABLE 5.10
NOAEL RISK CALCULATION FOR THE RACCOON

Analyte	Soil Exposure Point Concentration (mg/kg)	Water Exposure Point Concentration (mg/L)	Exposure Value Type	BCF_V	BCF_{Inv}	BCF_B	Intake (mg/kg-day)	NOAEL TRVs (mg/kg-day)	Hazard Quotient
1,1-Dichloroethene	0.001	0.160	max	2.27E+00	3.97E+00	3.32E-09	1.4E-02	1.6E+01	0.00086
1,1,1-Trichloroethane	0.001	0.061	max	1.43E+00	7.68E+00	3.32E-09	5.3E-03	3.1E+02	0.000017
Isopropylbenzene	0.016	0.0005	max	3.60E-01	5.35E+01	3.32E-09	1.6E-01	NA	NA
Tetrachloroethene	0.013	0.0025	max	1.11E+00	1.10E+01	3.32E-09	1.7E-03	4.1E-01	0.0041
Trichloroethene	0.023	1.70	max	1.05E+00	1.18E+01	3.32E-09	1.5E-01	2.1E-01	0.70
								Hazard Index:	0.71

BCF_M = Bioconcentration factor for mammals based on vinyl chloride (USEPA, 1999)
BCF_{INV} = Bioconcentration factor for invertebrates based on vinyl chloride (USEPA, 1999)
BCF_B = Bioconcentration factor for birds (see Section 8.9.2)
BCF_V = Bioconcentration factor for vegetation
NA = Not available
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Values
mg/kg = milligrams per kilograms
mg/L = milligrams per liter
max = maximum concentration of seeps
mg/kg-day = milligrams per kilogram per day

PREPARED/DATE: EJS 1/22/10
CHECKED/DATE: EFC 1/22/10
REVISED BY/DATE: CMB 9/15/10
CHECKED BY/DATE: MKB 9/27/10

Equations:
HQ = Intake / NOAEL TRV
HI = Sum of HQs

NOTES: 1,1-DCE, 1,1,1-TCE - soil concentration is 1/2 lowest detection limit
Tetrachloroethene water concentration is 1/2 lowest detection limit

TABLE 5.11
NOAEL RISK CALCULATION FOR THE NORTHERN BOBWHITE

Analyte	Soil Exposure Point Concentration (mg/kg)	Water Exposure Point Concentration (mg/L)	Exposure Value Type	BCF_V	BCF_{Inv}	Intake (mg/kg-day)	NOAEL TRVs (mg/kg-day)	Hazard Quotient
1,1-Dichloroethene	0.001	0.160	max	2.27E+00	3.97E+00	1.2E-01	NA	NA
1,1,1-Trichloroethane	0.001	0.061	max	1.43E+00	7.68E+00	2.4E-01	NA	NA
Isopropylbenzene	0.016	0.0005	max	3.60E-01	5.35E+01	2.4E-01	NA	NA
Tetrachloroethene	0.013	0.0025	max	1.11E+00	1.10E+01	2.7E-03	NA	NA
Trichloroethene	0.023	1.70	max	1.05E+00	1.18E+01	5.5E-01	NA	NA
							Hazard Index:	NA

BCF_{INV} = Bioconcentration factor for invertebrates based on vinyl chloride (USEPA, 1999)
BCF_B = Bioconcentration factor for birds based on vinyl chloride (USEPA, 1999)
BCF_V = Bioconcentration factor for vegetation
NA = Not applicable
NOAEL = No Observed Adverse Effects Level
TRV = Toxicity Reference Values
mg/kg = milligrams per kilograms
mg/L = milligrams per liter
max = maximum concentration of seeps
mg/kg-day = milligrams per kilogram per day

PREPARED/DATE: EJS 1/22/10
CHECKED/DATE: EFC 1/22/10
REVISED BY/DATE: CMB 9/15/10
CHECKED BY/DATE: MKB 9/27/10

Equations:
HQ = Intake / NOAEL TRV
HI = Sum of HQs

NOTES: 1,1-DCE, 1,1,1-TCE - soil concentration is 1/2 lowest detection limit
Tetrachloroethene water concentration is 1/2 lowest detection limit

TABLE 5.12
TCE SEEP EXPOSURE POINT CONCENTRATION FOR 2010

Location	Seep Water TCE Concentration (mg/L)	
Manson Branch #2	1.7	
Manson Branch Seep West #2	0.0025	(a)
Manson Branch #14	0.0025	(a)
Manson Branch #15	0.0025	(a)
Manson Branch #16	0.0025	(a)
Seep A	Dry	
Seep B	Dry	
Seep C	0.5	
Seep D	0.0025	(a)
Seep G	0.0078	
Seep H	0.041	
Seep I	0.0025	(a)
Seep J	0.0025	(a)
Seep K	0.0058	
Seep L	0.0005	(a)
TCE Maximum Concentration for All Seeps	**1.7**	
TCE Mean Concentrations for All Seeps	**0.175**	
TCE 95% UCL Concentration for All Seeps	**0.427**	

(a) Footnoted TCE concentrations are non-detect and the listed concentration is 1/2 the detection limit.

PREPARED BY/DATE: EJS 1/22/10
CHECKED BY/DATE: EFC 1/22/10
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CHECKED BY/DATE: MKB 9/27/10

TABLE 5.13
SUMMARY OF NOAEL HAZARD INDICES

Ecological Receptor	**NOAEL Hazard Index**
Species:	**Using Maximum Detected Seep Concentration for 2010**
Short-Tailed Shrew	0.64
Raccoon	0.71
Northern Bobwhite	NA

NA = Not available
NOAEL = No Observed Adverse Effects Level

Prepared By: EJS 1/22/10
Checked By: EFC 1/22/10
REVISED BY/DATE: CMB 9/15/10
CHECKED BY/DATE: MKB 9/27/10

TABLE 6.0: RISK REDUCTION STANDARDS FOR GROUND WATER

HSRA-Regulated Substance	2010 Maximum Detected Concentrations (mg/L)	Location	Historical Maximum Detected Concentrations (mg/L)	Location	Risk Reduction Standards (RRS) (mg/L)					
					Types 1 and 3		Type 2		Type 4	
					RRS	Status	RRS	Status	RRS	Status
Volatile Organic Compounds - SW8260B										
1,1,1-Trichloroethane	ND		83	GW-AOC1-1	0.2	E	2.7	E	25.1	**E**
1,1-Dichloroethene	0.1	MW-19 (6/2/2010)	2	GW-AOC1-1	0.007	E	0.1	E	0.95	**E**
cis-1,2-Dichloroethene	0.82	MW-25 (6/24/2010)	0.53	MW-14 (6/13/2003)	0.07	E	0.16	E	1.0	C
Chloroform	0.0049	MW-1 (6/1/2010)	0.0077	MW-3 (10/12/2004)	0.08	C	0.0020	***	0.0066	***
Toluene	ND		0.029	MW-14 (4/21/2003)	1.0	C	0.88	***	6.4	***
Trichloroethene	5.8	MW-19 (6/3/2010)	20	MW-19 (5/5/2004)	0.005	E	0.021	E	0.07	**E**
Vinyl chloride	0.015	MW-20 (6/1/2010)	ND		0.002	E	0.0011	E	0.004	**E**

Notes:
mg/l = milligram per liter
Reference = Reference for the RRS
*** Substance concentrations complies with a lower RRS
C = Substance concentration meets the respective RRS
E = Substance concentration exceeds the respective RRS
ND = Substance Not Detected
Bold Substance concentrations exceeds Types 1/3, 2, and 4 RRS

PREPARED BY: RPR 12/03/10
REVISED BY: RNQ 12/03/10

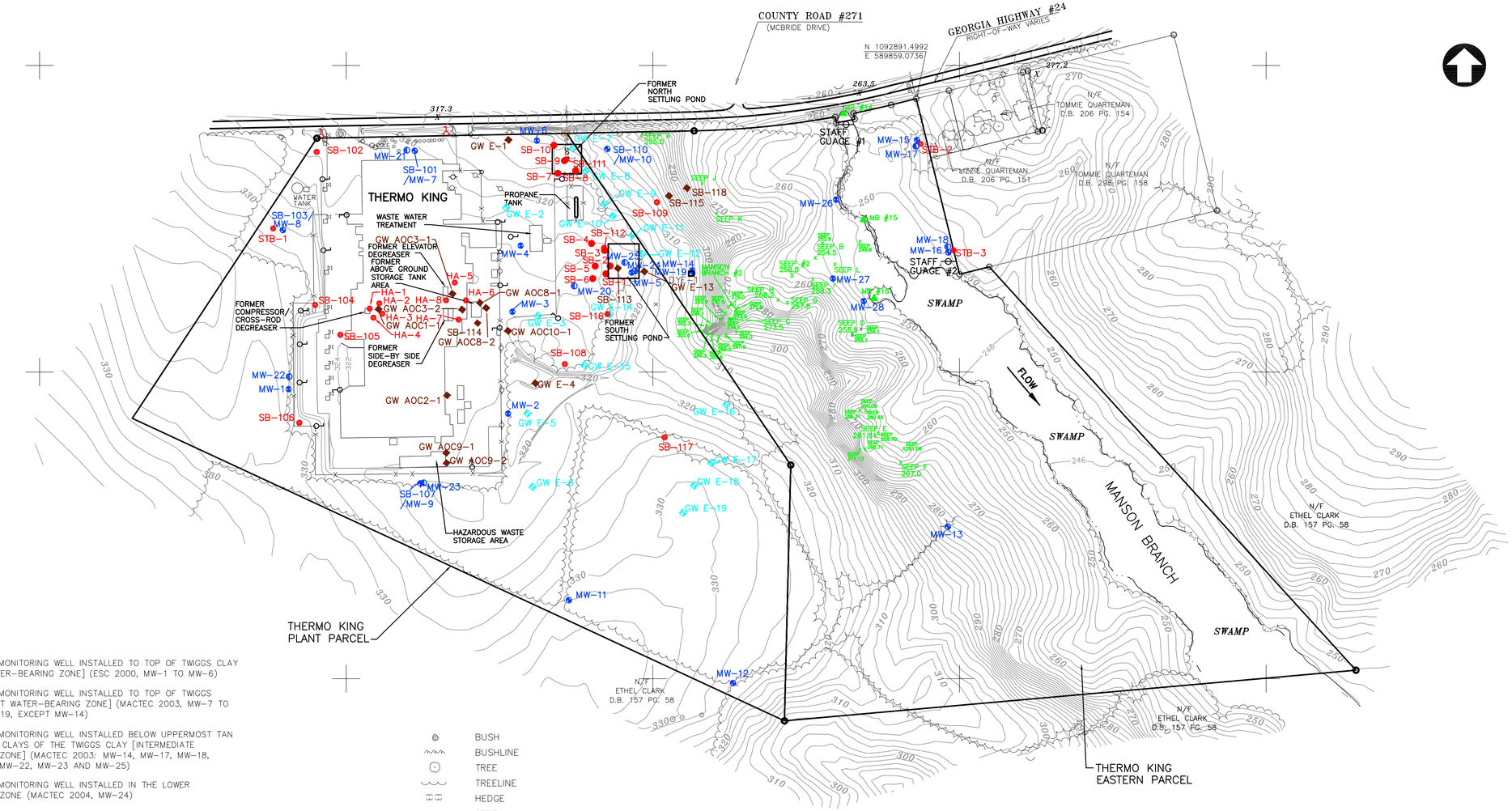
TABLE 6.1: RISK REDUCTION STANDARDS FOR SOILS - TYPES 1 through 4

			Risk Reduction Standards (RRS) (mg/kg)														
	Maximum Detected Concentrations (mg/kg)		Type 1			Type 2			Type 3 Surface			Type 3 Subsurface			Type 4		
HSRA-Regulated Substance	Surface (a)	Subsurface (b)	RRS	Reference	Status	RRS	Reference	Status	RRS	Reference	Status	RRS	Reference	Status	RRS	Reference	Status
Volatile Organic Compounds - SW8260B																	
1,1,1-Trichloroethane	0.18	2.3	20	GW x 100	C	19	Leaching	***	20	GW x 100	***	20	GW x 100	***	170	G	***
1,1,2-Trichloroethane	0.026	0.015	0.5	GW x 100	C	0.032	Leaching	***	0.5	GW x 100	***	0.5	GW x 100	***	0.055	G	***
1,1-Dichloroethene	0.023	0.051	0.7	GW x 100	C	0.72	Leaching	***	0.7	GW x 100	***	0.7	GW x 100	***	6.8	G	***
1,4-Dioxane	3600	2800	0.5	GW x 100	**E**	0.015	Leaching	**E**	0.5	GW x 100	**E**	0.5	GW x 100	**E**	0.049	G	**E**
cis-1,2-Dichloroethene	0.6	0.38	7	GW x 100	C	0.44	Leaching	***	7	GW x 100	***	7	GW x 100	***	0.44	G	***
Ethylbenzene	ND	0.36	70	GW x 100	C	16	Leaching	***	70	GW x 100	***	70	GW x 100	***	16	G	***
Isopropylbenzene	0.016	ND	22	Appendix I	C	6.9	Leaching	***	22	Appendix I	***	22	Appendix I	***	62	G	***
Napthalene	ND	0.31	100	Appendix I	C	1.3	Leaching	***	100	Appendix I	***	100	Appendix I	***	1.3	G	***
m+p Xylene	ND	1.4	1000	GW x 100	C	200	Leaching	***	1000	GW x 100	***	1000	GW x 100	***	200	G	***
Tetrachloroethene	0.013	0.013	0.5	GW x 100	C	0.045	Leaching	***	0.5	GW x 100	***	0.5	GW x 100	***	0.045	G	***
Trichloroethene	4.1	2.6	0.5	GW x 100	**E**	1.8	Leaching (c)	**E**	0.5	GW x 100	**E**	0.5	GW x 100	**E**	1.8	Leaching (c)	**E**
Chloroform	ND	0.011	3.8	GW x 100	C	0.94	Leaching	***	4.9	GW x 100	***	8	GW x 100	***	4.9	G	***

Notes:
mg/kg = milligram per kilogram
Reference = Reference for the RRS
ND = Substance not detected
(a) Surface soil is defined under HSRA as 0 to 2 feet below ground surface
(b) Subsurface soil is defined under HSRA as any point above the upper most groundwater zone; used here to mean other than surface soil.
*** Substance concentrations complies with a lower RRS
C = Substance concentration meets the respective RRS
E = Substance concentration exceeds the respective RRS
GW x 100 = HSRA ground water criteria standard times a factor of 100
Appendix I = HSRA Rules Appendix I: Regulated Substances and Soil Concentrations that Trigger Notification
G = Lower value of direct soil contact and non-residential soil-to-ground water leaching values
Leaching = RRS based on soil-to-groundwater transport equation from the Soil Screening Guidance background document (USEPA, 1996).
(c) 1.8 mg/kg is the EPD-approved leaching criteria. Soil concentrations exceeding the direct contact value of 1.3 mg/kg are all located beneath the existing building floor slab, so direct contact is not possible.
Bold Substance concentrations exceeds Types 1, 2, 3 and 4 RRS

PREPARED BY: RPR 12/03/10
REVISED BY: RNQ 12/03/10

FIGURES



LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
MW–14	GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22, MW–23 AND MW–25)
MW–24	GROUND–WATER MONITORING WELL INSTALLED IN THE LOWER WATER–BEARING ZONE (MACTEC 2004, MW–24)
GW E–2	DIRECT–PUSH TECHNOLOGY BORING FOR GROUND–WATER SAMPLING (LAW 2000: GW E–1 TO GW E–19, UPPERMOST WATER–BEARING ZONE)
GW E–1	SOIL BORING FOR SOIL AND GROUND–WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E–1, GW E–4, GW E–13, GW AOC1–1, GW AOC2–1, GW AOC3–1, GW AOC3–2, GW AOC8–1, GW AOC8–2, GW AOC9–1, GW AOC9–2, GW AOC10–1, SB–113, SB–114, SB–115, AND SB–118, UPPERMOST WATER–BEARING ZONE)
SB–7	SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB–1 TO SB–10, SB–101 TO SB–112, SB–116 AND SB–117 AND HA–1 TO HA–8) (SOIL BORINGS FOR SOIL SAMPLING SB–101, SB–103, SB–107, SB–110 WERE COMPLETED AS MONITORING WELLS MW–7, MW–8, MW–9, AND MW–10 RESPECTIVELY) BORINGS STB–1, STB–2 AND STB–3 ARE STRATIGRAPHIC BORINGS
SEEP A 299.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
SEEP 252.9	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
	STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
	DYE INJECTION WELL
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
X	FENCE
300	TOPOGRAPHIC CONTOUR
DI	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. IN SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

SCALE IN FEET
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REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED M. BARTENFIELD
DRAWN T. GLADSTONE, J. THREADGILL
CHECKED R. QUINN
IN CHARGE D. ALCOTT
DATE 12/16/2010

THERMO KING CORPORATION
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MACTEC Engineering and Consulting, Inc.
3200 TOWN POINT DRIVE, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421–3400

SITE SAMPLING LOCATIONS MAP

FIGURE 3.0

SCALE: AS SHOWN
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DWG. NO.
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PAGE NO 2

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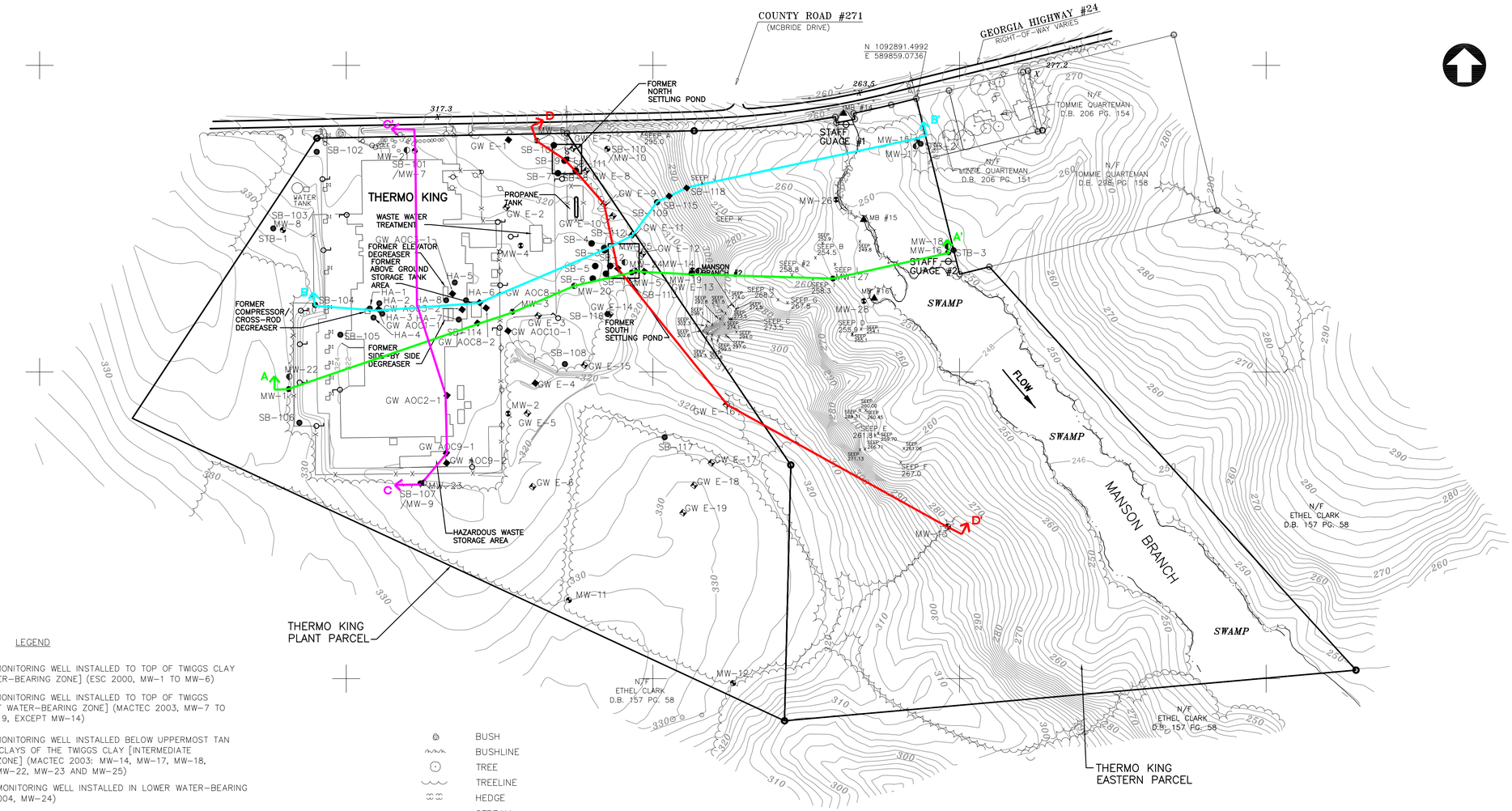

LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
MW–14	GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22, MW–23 AND MW–25)
MW–24	GROUND–WATER MONITORING WELL INSTALLED IN LOWER WATER–BEARING ZONE (MACTEC 2004, MW–24)
GW E–2	DIRECT–PUSH TECHNOLOGY BORING FOR GROUND–WATER SAMPLING (LAW 2000: GW E–1 TO GW E–19, UPPERMOST WATER–BEARING ZONE)
GW E–1	SOIL BORING FOR SOIL AND GROUND–WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E–1, GW E–4, GW E–13, GW AOC1–1, GW AOC2–1, GW AOC3–1, GW AOC3–2, GW AOC8–1, GW AOC8–2, GW AOC9–1, GW AOC9–2, GW AOC10–1, SB–113, SB–114, SB–115, AND SB–118, UPPERMOST WATER–BEARING ZONE)
SB–7	SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB–1 TO SB–10, SB–101 TO SB–112, SB–116 AND SB–117 AND HA–1 TO HA–8) (SOIL BORINGS FOR SOIL SAMPLING SB–101, SB–103, SB–107, SB–110 WERE COMPLETED AS MONITORING WELLS MW–7, MW–8, MW–9, AND MW–10 RESPECTIVELY) BORINGS STB–1, STB–2 AND STB–3 ARE STRATIGRAPHIC BORINGS
SEEP A 299.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
SEEP 252.9	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
	STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
X	FENCE
300	TOPOGRAPHIC CONTOUR
DI	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY
A A'	HYDROGEOLOGIC PROFILE LOCATION

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC: OCTOBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED C. KRAMBIS
M. BARTENFIELD
DRAWN T. GLADSTONE
CHECKED R. QUINN
IN CHARGE D. ALCOTT
DATE 11/12/2010

THERMO KING CORPORATION
LOUISVILLE, GEORGIA

MACTEC Engineering and Consulting, Inc.
3200 TOWN POINT DRIVE
KENNESAW, GEORGIA 30144 (770) 421–3400

HYDROGEOLOGIC PROFILE LOCATION MAP

FIGURE 4.0

SCALE: AS SHOWN
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REV 2
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A
WEST

A'
EAST

ELEVATION IN FEET (NAVD)

FORMER ABOVEGROUND STORAGE TANK
FORMER SOUTH SETTLING POND (OFFSET)
MANUFACTURING BUILDING

(OFFSET) STB-1
MW-1 (POD)
MW-22
SB-114
MW-3
MW-20
MW-25
SB-113
MW-5
MW-24
MW-19
MW-14
MW-27
MW-18
MW-16

SB-114 (0-2') TCE 130 ug/kg
SB-113 (0-2') VOCs ND
SB-113 (4-6') TCE 9.4 ug/kg
SB-114 (22-24') VOCs ND
SB-113 (40-42') VOCs ND
SB-114 (42-44') VOCs ND
SB-113 (42-44') TCE 93 ug/L
SB-114 (44-48') 111TCA 270 ug/L; 11DCE 72 ug/L; C 12 DCE 27 ug/L; TCE 700 ug/L
MW-5 (50-65') 111TCA 1.0 ug/L; 11DCE 1.2 ug/L; TCE 2.4 ug/L; CHLFM 2.9 ug/L
MW-5 (40-54') TCE 250 ug/L; 111TCA <8 ug/L; 11DCE 22 ug/L; C 12 DCE <8 ug/L
MW-5 (68.4-74.4) CHLFM 220
SB-114 (60-65') 111TCA 2.7 ug/L; TCE 1.1 ug/L; CHLFM 1.0 ug/L
SB-113 (57-62') CHLFM 1.2 ug/L; TCE 20 ug/L
SEEP B (12/27/10) VOCs ND
SEEP C (4/21/10) C 12 DCE 12 ug/L; 11DCE 64 ug/L; 111TCA 28 ug/L; TCE 500 ug/L
SEEP #2 (4/21/10) VOCs ND
MW-19 (56.2-66.2) TCE 5800 ug/L; C 12 DCE 640 ug/L; 11 DCE 180 ug/L
MASON BRANCH #2 (6/2/10) C 12 DCE 180 ug/L; 11DCE 160 ug/L; 61 ug/L; 111TCA 1700 ug/L
SEEP H (6/3/10) C 12 DCE 63 ug/L; TCE 41 ug/L; 11 DCE 12 ug/L
MW-27 (2.2-7.2) C 12 DCE 5.2 ug/L; TCE 10 ug/L
MW-16 (6.7-11.7) VOCs ND
MW-20 (91.7-106.7) C 12 DCE 370 ug/L; VC 15 ug/L
MW-22 (98.9-113.9) VOCs ND
MW-14 (71.2-86.2) C 12 DCE 380 ug/L; TCE 3600 ug/L; 11 DCE 58 ug/L
MW-25 (91.9-106.8) C 12 DCE 820 ug/L; TCE 2800 ug/L
MW-18 (6.5-11.7) VOCs ND
MW-24 (136.9-146.7) VOCs ND
MW-18 (70-80') VOCs ND

SEEP C (OFFSET)
MANSON BRANCH #2 (OFFSET)
SEEP H (OFFSET)
SEEP 2
SEEP B
MANSON BRANCH
THERMO KING PROPERTY LINE

B.T. 78'
B.T. 63.5'
B.T. 58'
B.T. 78.5'
B.T. 78.5'
B.T. 47.0'
B.T. 7.3'
B.T. 12.0' REFUSAL
B.T. 107.0'
B.T. 116'
B.T. 88.0'
B.T. 48.0' REFUSAL
B.T. 147.0'
B.T. 177'

REDDISH-BROWN TO ORANGE SILTY CLAYEY FINE TO MEDIUM SAND TO SANDY CLAY
BROWNISH-RED AND ORANGE, SILTY, FINE TO MEDIUM SAND
ORANGE TO WHITE TO YELLOWISH-BROWN MEDIUM SAND
ORANGE TO WHITE TO YELLOWISH-BROWN MEDIUM SAND
CLAY STONE
BROWN CLAY
YELLOW SAND
YELLOWISH TO GRAYISH BROWN CLAY
WHITE TO GRAY TO BROWN FINE TO COARSE SAND
TAN AND WHITE AND LIGHT GRAY CLAY
BLUE-GRAY CLAY TO SANDY SILTY CLAY
BROWN POORLY GRADED FINE SAND (ALLUVIAL DEPOSITS)
DARK BROWNISH-GRAY SILTY FINE SAND (ALLUVIAL DEPOSITS)
GRAY-BROWN TO BLUE-GREEN SILTY SANDY CLAY TO CLAYEY FINE SAND TO BLUE-GRAY SAND
BLUE-GRAY SILTY CLAYEY FINE TO MEDIUM SAND
BLUE-GRAY TO GREENISH- GRAY SANDY SILTY CLAY
BLUE-GRAY TO GREENISH-GRAY SILTY TO CLAYEY FINE TO VERY COARSE SAND WITH SOME SHELL FRAGMENTS
BLUE-GRAY CLAY
DARK GRAY SILT WITH FOSSILS
DARK GRAY CLAYEY SILT WITH SAND SEAMS
BLUE-GRAY SANDY SILTY CLAY
BLUE-GRAY SANDY SILTY CLAY
DARK GRAY SILTY CLAY WITH FOSSILS
GREENISH GRAY VERY FINE SANDY SILT
GREENISH-GRAY CLAYEY SILTY FINE TO MEDIUM SAND
DARK GRAY CLAYEY SILT WITH FOSSILS
GREENISH-GRAY FINE SANDY SILTY CLAY WITH SOME FOSSILS
GREEN TO DARK GRAY SILT WITH CLAY WITH FOSSILS AND SOME SAND
DARK GRAY MICRITIC LIMESTONE
GREENISH-GRAY SANDY CLAYEY SILT TO SILTY CLAY WITH SOME FOSSILS
DARK GREENISH-GRAY SILTY CLAY WITH SAND AND FOSSILS
GRAY LIMESTONE
DARK GREENISH-GRAY CLAYEY SILTY FINE TO COARSE SAND
GRAY LIMESTONE
CLAYEY SANDY SILT WITH FOSSILS AND THIN LIMESTONE LENSES
GREENISH-GRAY FINE SANDY SILT
SANDY CLAYEY SILT WITH FOSSILS
GRAY CLAYEY SILT WITH LIMESTONE FRAGMENTS
GREENISH-GRAY SILTY CLAY
DARK GRAY SAND WITH FOSSILS

UPPERMOST WATER BEARING ZONE
PERCHING AND CONFINING LAYER
INTERMEDIATE WATER BEARING ZONE
TWIGGS CLAY FORMATION MEMBER
LOWER WATER-BEARING ZONE

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 12, 2004
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- (10) / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- (POD) — POINT OF DEMONSTRATION WELL
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- CHLFM — CHLOROFORM
- VC — VINYL CHLORIDE
- TCE 130 ug/kg (0-2') — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN IN FEET
- ug/kg= MICROGRAMS PER KILOGRAM
- ug/L= MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988
- DIRECTION OF GROUNDWATER FLOW
- UPPERMOST WATER-BEARING ZONE
- INTERMEDIATE WATER-BEARING ZONE
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

LEGEND

1. THE ISOCONCENTRATION CONTOURS OF TOTAL VOLATILE ORGANIC COMPOUNDS (VOCS) INDICATE THE VERTICAL EXTENT OF VOCS IN SOIL ABOVE GROUNDWATER
2. VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.
3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

SCALE IN FEET
10
0
200

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DRAWN T. GLADSTONE
CHECKED R. QUINN
IN CHARGE D. ALCOTT
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KENNESAW, GEORGIA 30144 (770) 421-3400

HYDROGEOLOGIC PROFILE A–A'

FIGURE 4.1

SCALE AS SHOWN
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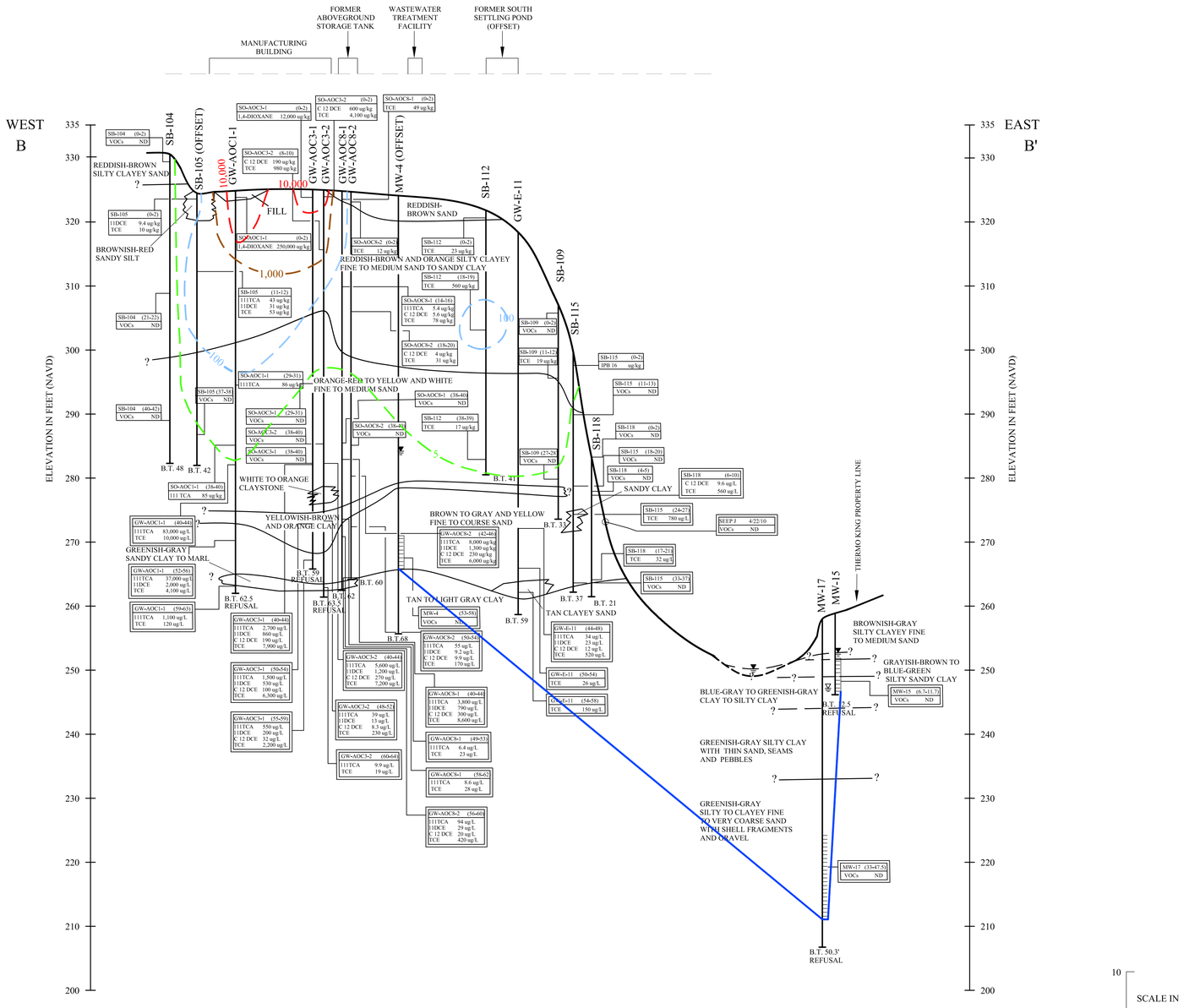

NOTES:

1. THE ISOCONCENTRATION CONTOURS OF TOTAL VOLATILE ORGANIC COMPOUNDS (VOCS) INDICATE THE VERTICAL EXTENT OF VOCS IN SOIL ABOVE GROUNDWATER
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3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

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HYDROGEOLOGIC PROFILE B–B'

FIGURE 4.2

SCALE AS SHOWN
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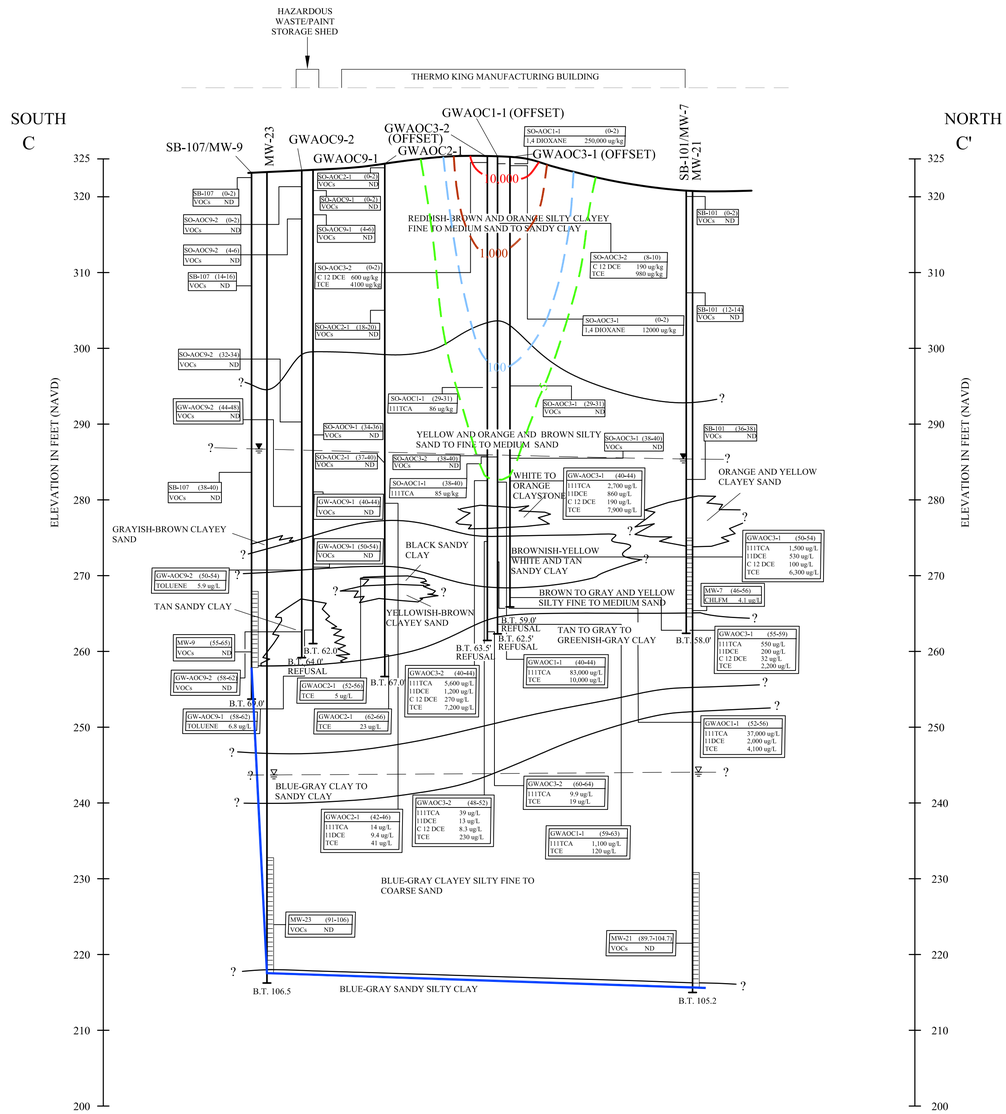

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 21, 2010
- 10,000 / 1000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- GROUND SURFACE
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- POTENTIOMETRIC SURFACE IN INTERMEDIATE WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- CHLFM — CHLOROFORM
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED) AND INTERVAL OF WELL SCREEN
- ug/kg= — MICROGRAMS PER KILLOGRAMS
- ug/L= — MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988
- POD — POINT OF DEMONSTRATION WELL
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTES:

1. THE ISOCONCENTRATION CONTOURS OF TOTAL VOLATILE ORGANIC COMPOUNDS (VOC'S) INDICATE THE VERTICAL EXTENT OF VOCS IN SOIL ABOVE GROUNDWATER
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3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

10 — SCALE IN FEET — 0 200

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HYDROGEOLOGIC PROFILE C–C'

FIGURE 4.3

SCALE AS SHOWN
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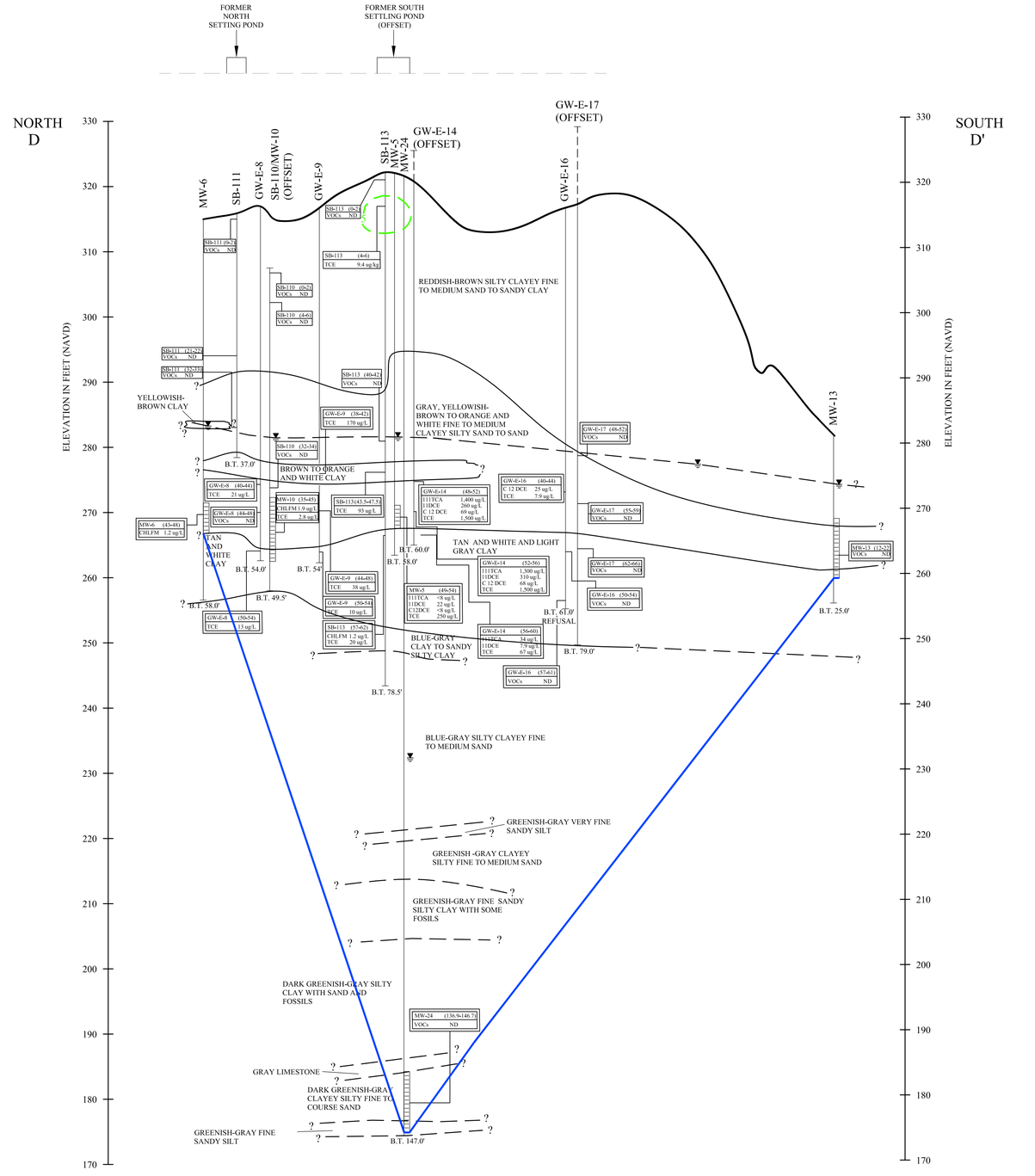

LEGEND

- MONITORING WELL SCREEN INTERVAL
- B.T. — BORING TERMINATION AND DEPTH
- WATER LEVEL MEASURED IN MONITORING WELL ON OCTOBER 21, 2010
- 10,000 / 1000 / 100 / 5 — INTERPRETED ISOCONCENTRATIONS OF TOTAL VOCs IN SOIL IN ug/kg
- GROUND SURFACE
- INTERPRETED CONTACT BETWEEN LITHOLOGIES
- ESTIMATED CONTACT BETWEEN LITHOLOGIES
- POTENTIOMETRIC SURFACE IN UPPERMOST WATER-BEARING ZONE
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- 111 TCA — 111-TRICHLOROETHANE
- 11 DCE — 11-DICHLOROETHENE
- C 12 DCE — CIS-12-DICHLOROETHENE
- CHLFM — CHLOROFORM
- TCE 130 ug/kg — CONSTITUENT CONCENTRATION IN SOIL IN ug/kg AND DEPTH OF SAMPLE IN FEET
- TCE 93 ug/L — CONSTITUENT CONCENTRATION IN GROUND WATER OR SEEP WATER IN ug/L (MOST RECENT RESULTS FOR EACH SAMPLE LOCATION WAS USED AND INTERVAL WELL SCREEN IN FEET
- ug/kg= — MICROGRAMS PER KILLOGRAMS
- ug/L= — MICROGRAMS PER LITER
- NAVD — NORTH AMERICAN VERTICAL DATUM 1988
- VERTICAL EXTENT OF VOCS IN GROUND WATER

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTES:

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3. IN SOME LOCATIONS, VOCS CONCENTRATIONS IN SOIL THAT ARE ABOVE SITE BACKGROUND CONCENTRATIONS EXTEND DOWN TO GROUNDWATER

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HYDROGEOLOGIC PROFILE D–D'

FIGURE 4.4

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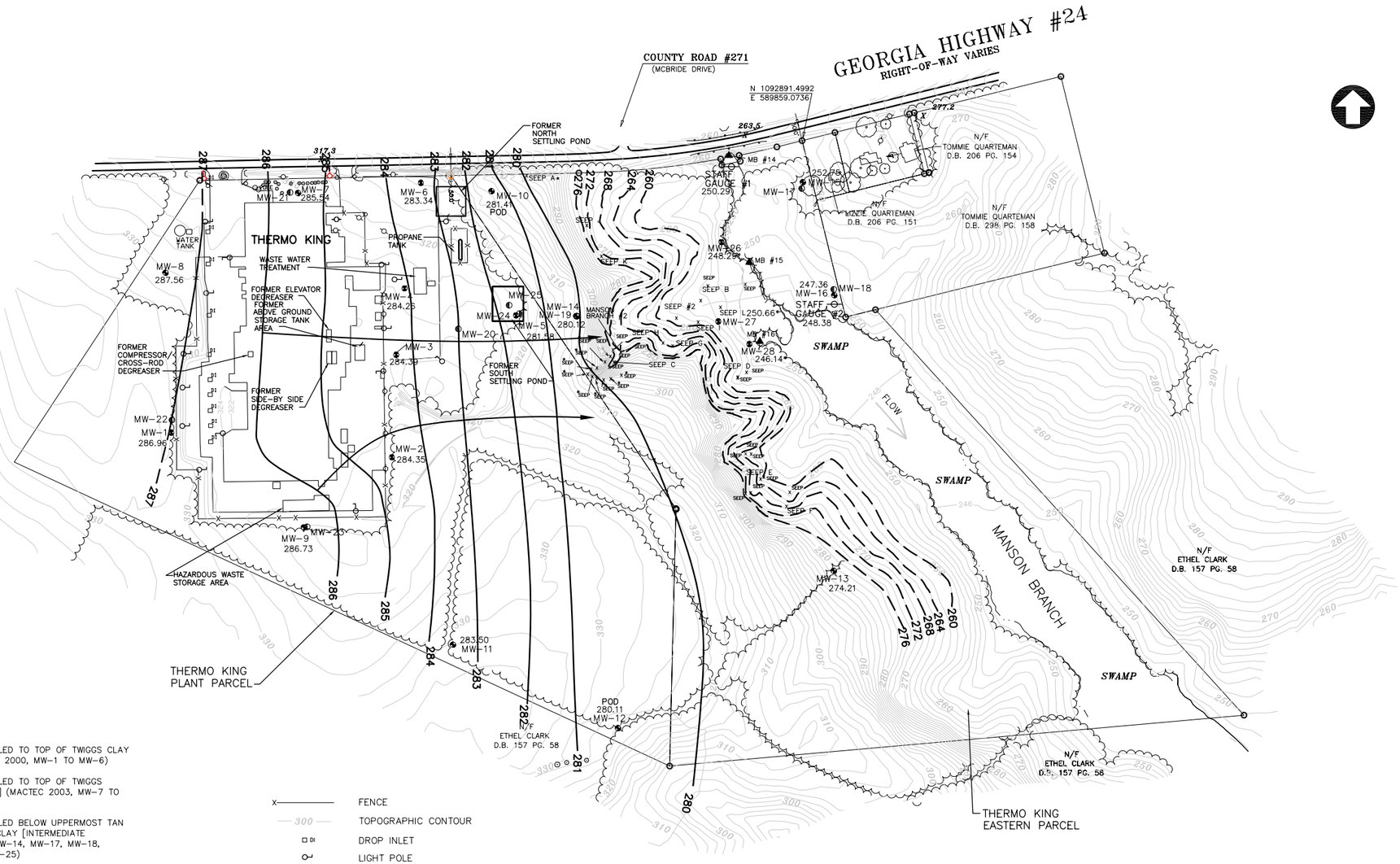

LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
MW–14	GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22, MW–23 AND MW–25)
MW–24	GROUND–WATER MONITORING WELL INSTALLED IN LOWER WATER BEARING ZONE.
SEEP A 299.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through Manson Branch #2, and Seep #2)
SEEP 252.9	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
	STAFF GAUGE FOR MEASURING SURFACE WATER ELEVATION
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
x	FENCE
300	TOPOGRAPHIC CONTOUR
DI	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY
286.90	GROUND–WATER ELEVATION IN FEET, NAVD 1988 (OCTOBER 19, 2010)
284	POTENTIOMETRIC SURFACE CONTOUR IN FEET, NAVD 1988 IN UPPERMOST WATER–BEARING ZONE
	INTERPRETED DIRECTION OF GROUND–WATER FLOW IN UPPERMOST WATER–BEARING ZONE
X	SEEPS NOT USED IN CONTORING
NM	NOT MEASURED
*	GROUNDWATER ELEVATIONS NOT USED IN CONTOURING WELLS MW–26, MW–27, AND MW–28 ARE SCREENED IN ALLUVIAL MATERIAL ALONG MANSON BRANCH AND NOT THE UPPERMOST WATER BEARING ZONE.

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH. AND GROUND SURVEYING. 2000 CSR SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

SCALE IN FEET
0 200 400

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POTENTIOMETRIC SURFACE MAP FOR UPPERMOST WATER–BEARING ZONE OCTOBER 2010

FIGURE: 4.5

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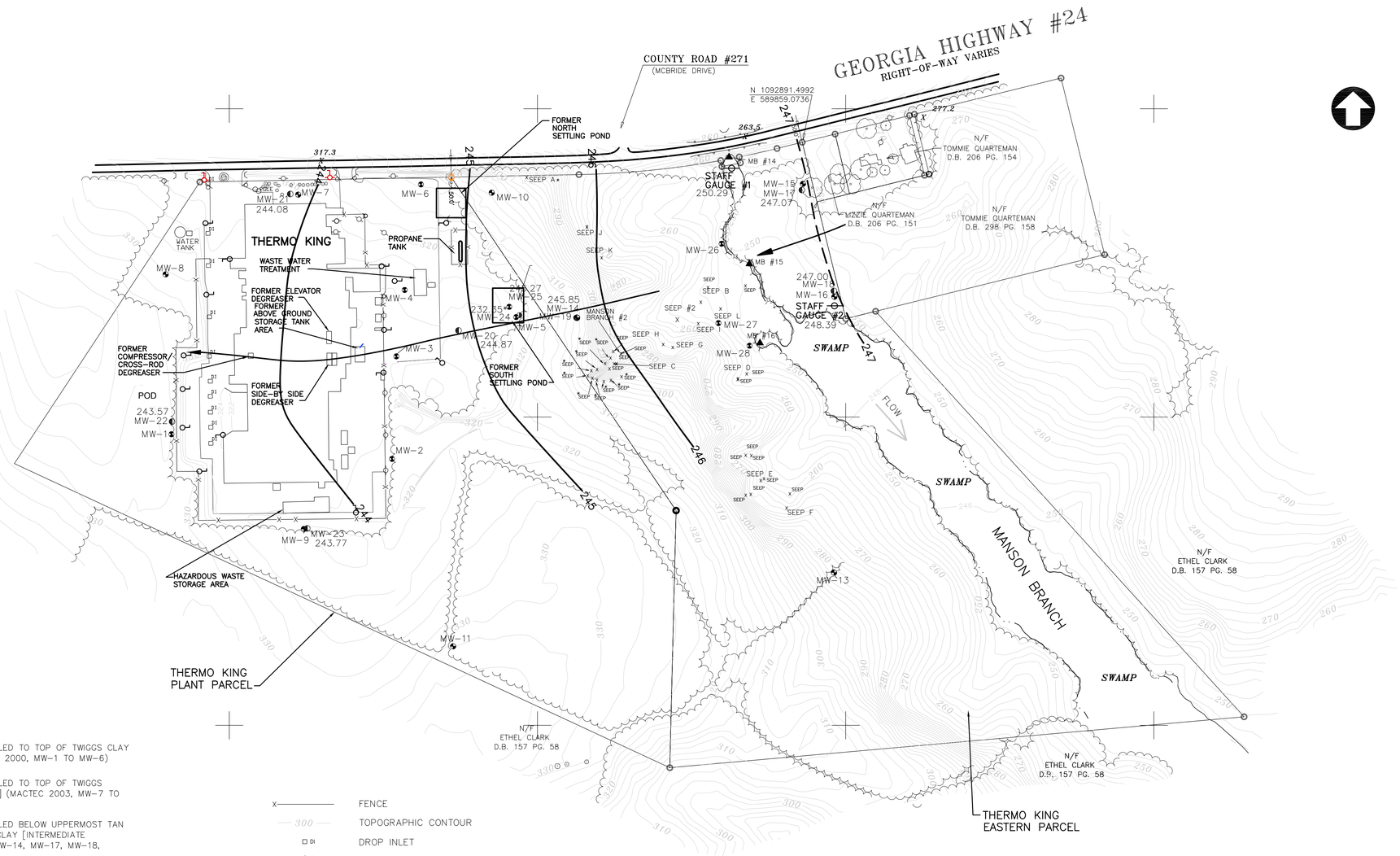

LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–16 AND MW–19, EXCEPT MW–14)
MW–14	GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22 AND MW–23)
MW–24	GROUND–WATER MONITORING WELL INSTALLED IN LOWER WATER BEARING ZONE.
SEEP A 295.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through J, Manson Branch #2, and Seep #2)
SEEP 274.0	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
	STAFF GAUGE FOR MEASURING SURFACE WATER ELEVATION
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
x	FENCE
300	TOPOGRAPHIC CONTOUR
DI	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY
245.96	GROUND–WATER ELEVATION IN FEET, NAVD 1988 (JUNE 1–3, 2010)
284	POTENTIOMETRIC SURFACE CONTOUR IN FEET, NAVD 1988 IN INTERMEDIATE WATER–BEARING ZONE
	INTERPRETED DIRECTION OF GROUND–WATER FLOW IN INTERMEDIATE WATER–BEARING ZONE
x	SEEPS NOT USED IN CONTORING
POD	POINT OF DEMONSTRATION WELL

NOTE: MW–24 NOT USED IN CONTOURING.

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH, AND GROUND SURVEYING. 2000 CSR SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. SEPTEMBER 2003. DECEMBER 2004 LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

SCALE IN FEET
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POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE WATER–BEARING ZONE OCTOBER 2010

FIGURE: 4.6

SCALE: AS SHOWN
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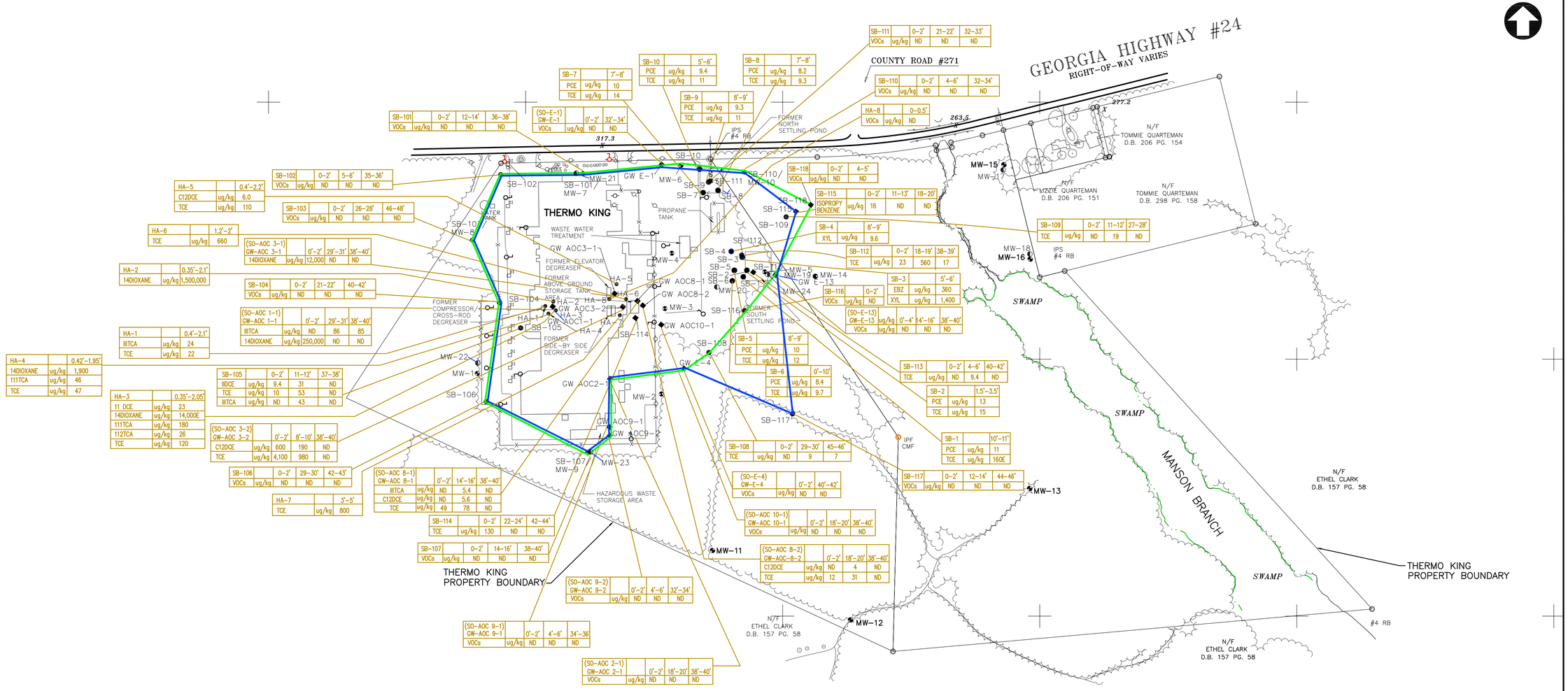

LEGEND

MW-1 ●	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
MW-7 ◔	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
MW-14 ◐	GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22 AND MW-23)
MW-24 ◑	GROUND-WATER MONITORING WELL INSTALLED IN THE LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
GW E-1 ◆	SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, [UPPERMOST WATER-BEARING ZONE]
SB-7 ●	SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003 AND 2005 SB-1 TO SB-10, SB-101 TO SB-112, SB-116 AND SB-117 AND HA-1 TO HA-8, Kd-1 TO Kd-12) (Soil borings for soil sampling SB-101, SB-103, SB-107, and SB-110 were completed as monitoring wells MW-7, MW-8, MW-9, and MW-10)

VOCs	VOLATILE ORGANIC COMPOUNDS
ug/kg	MICROGRAMS PER KILOGRAMS
IIITCA	1,1,1-TRICHLOROETHANE
TCE	TRICHLOROETHENE
IIDCE	1,1-DICHLOROETHENE
CI2DCE	CIS-1,2-DICHLOROETHENE
PCE	TETRACHLOROETHENE
XYL	XYLENES
EBZ	ETHYLBENZENE
ND	NOT DETECTED
NS	NOT SAMPLED
II2TCA	1,1,2-TRICHLOROETHANE
0'-2'	SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
110	CONSTITUENT CONCENTRATION
E	ESTIMATED CONCENTRATION; RESULT EXCEEDS THE CALIBRATION RANGE

BUSH
BUSHLINE
TREE
TREELINE
HEDGE
STREAM
FENCE
DROP INLET
LIGHT POLE
PROPERTY BOUNDARY

EXTENT OF VOCs IN SURFACE SOILS (0-2 FEET)

EXTENT OF VOCs IN SUBSURFACE SOILS (>2 FEET)

VOCS IN SOIL ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTE: SEE FIGURE 3.1 FOR Kd BORING LOCATIONS

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING INC., LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN SOIL

FIGURE 4.7

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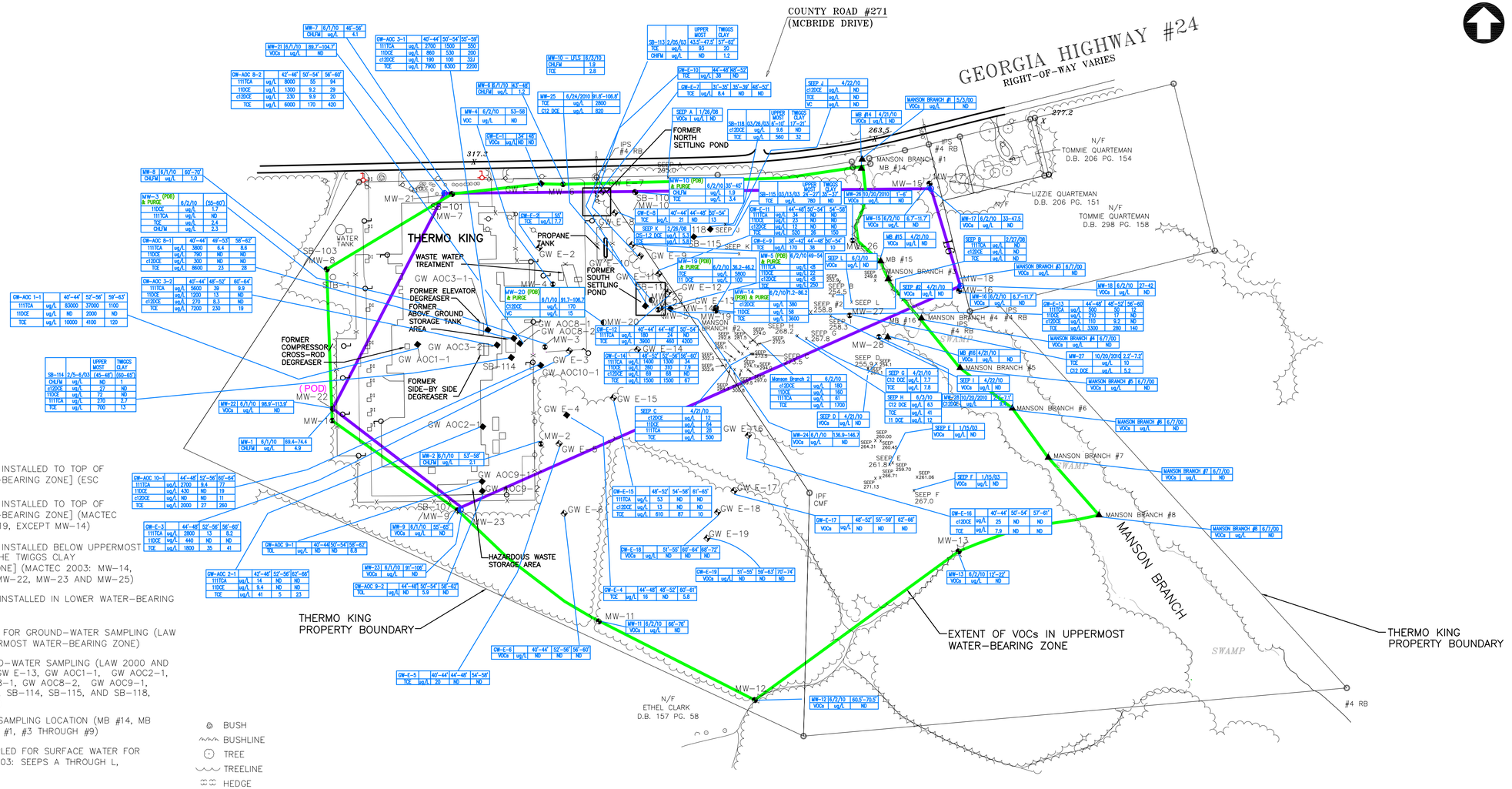

LEGEND

- ● MW-1 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
- ◒ MW-7 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
- ◐ MW-14 — GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23 AND MW-25)
- ◑ MW-24 — GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004: MW-24)
- GW-E-2 — DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
- ◆ GW-E-1 — SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
- ▲ MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16, MANSON BRANCH #1, #3 THROUGH #9)
- X SEEP A 299.0 — WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: SEEPS A THROUGH L, MANSON BRANCH #2, SEEP #2)

ND	NOT DETECTED
VOC	VOLATILE ORGANIC COMPOUNDS
TCE	TRICHLOROETHENE
111TCA	1,1,1-TRICHLOROETHANE
11DCE	1,1-DICHLOROETHENE
c12DCE	CIS-1,2-DICHLOROETHENE
t12DCE	TRANS-1,2-DICHLOROETHENE
TOL	TOLUENE
CHLFM	CHLOROFORM
VC	VINYL CHLORIDE
ug/L	MICROGRAMS PER LITER
40'-44'	SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
27	CONSTITUENT CONCENTRATION
(POD)	POINT OF DEMONSTRATION WELL
(PDB)	PASSIVE DIFFUSION BAG

- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- WATER
- FENCE
- DI DROP INLET
- X SEEP 299.5 WATER SEEP WITH ELEVATION
- PROPERTY BOUNDARY
- EXTENT OF VOCs IN UPPERMOST WATER-BEARING ZONE
- EXTENT OF VOCs IN INTERMEDIATE WATER-BEARING ZONE

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTE: MOST CURRENT ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000, 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN GROUND WATER

SCALE AS SHOWN
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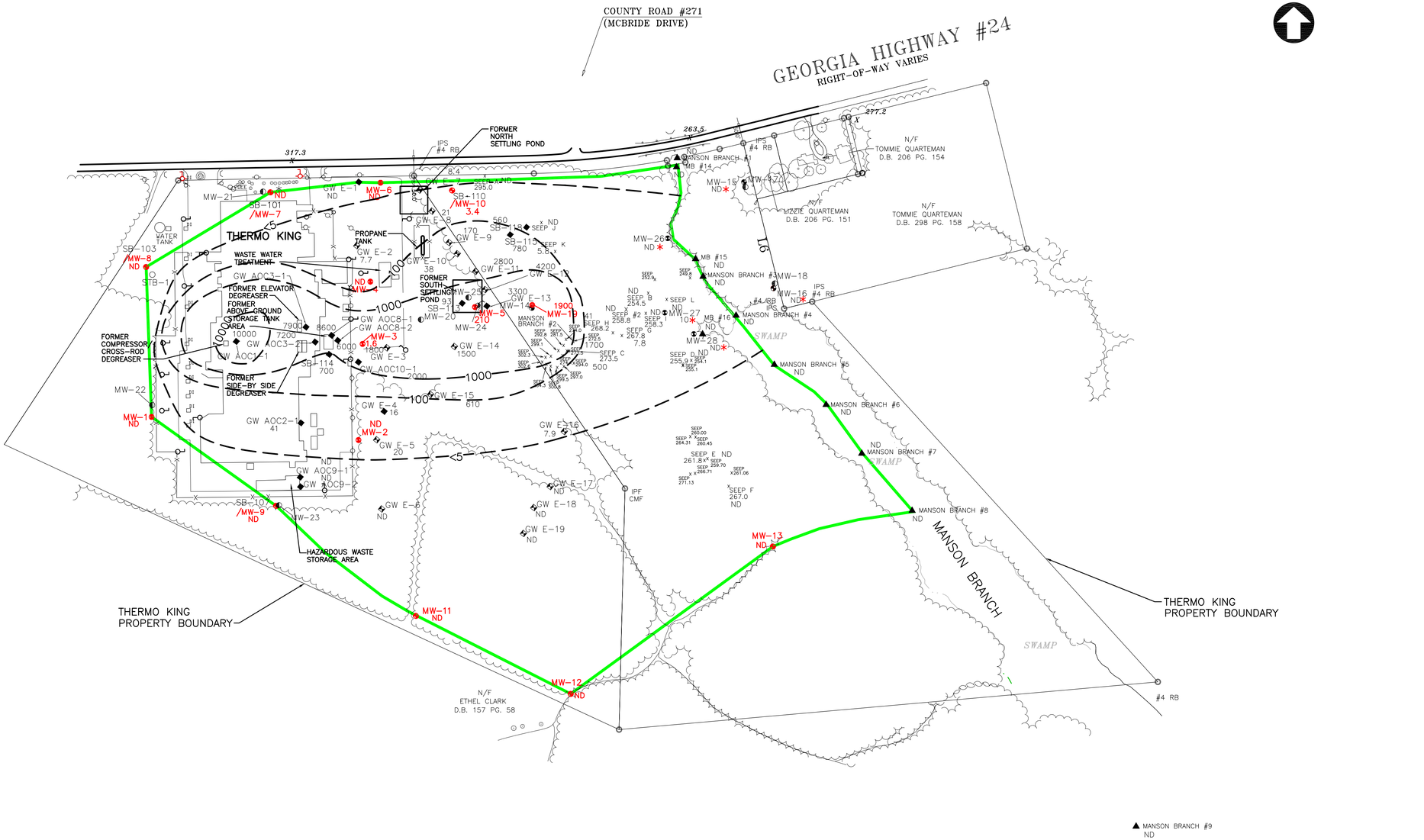

LEGEND

MW-1	GROUND-WATER MONITORING WELL INSTALLED IN UPPERMOST WATER-BEARING ZONE (ESC 2000, MW-1 TO MW-6)
MW-7	GROUND-WATER MONITORING WELL INSTALLED IN UPPERMOST WATER-BEARING ZONE (MACTEC 2003, MW-7 TO MW-13 AND MW-19) (MW-15 AND MW-16 INSTALLED IN ALLUVIUM DEPOSITS ON EAST SIDE OF MANSON BRANCH)
MW-14	GROUND-WATER MONITORING WELL INSTALLED IN INTERMEDIATE WATER-BEARING ZONE (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23 AND MW-25)
MW-24	GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
GW-E-2	DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
GW-E-1	SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16 MANSON BRANCH #1, #3 THROUGH #9)
X SEEP A 299.0	WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC NOV. 2004: SEEPS A THROUGH L, MANSON BRANCH #2, SEEP #2)
69	TRICHLOROETHENE CONCENTRATION IN ug/L IN GROUND WATER
100	ISO-CONCENTRATION CONTOUR FOR TRICHLOROETHENE CONCENTRATION IN ug/L BASED ON DATA COLLECTED FROM 2000 THROUGH 2010
ND	NOT DETECTED
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	WATER
	FENCE
DI	DROP INLET
SEEP 299.5	WATER SEEP WITH ELEVATION
	PROPERTY BOUNDARY
	HORIZONTAL EXTENT OF TRICHLOROETHENE IN UPPERMOST WATER-BEARING ZONE (ND LINE)
*	CONSTITUENT CONCENTRATION IN GROUNDWATER IN WELLS SCREENING THE ALLUVIAL MATERIAL ALONG MANSON BRANCH

NOTE: MOST CURRENT GROUND-WATER ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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ISO-CONCENTRATION MAP OF TRICHLOROETHENE IN GROUND WATER IN THE UPPERMOST WATER-BEARING ZONE

SCALE: AS SHOWN
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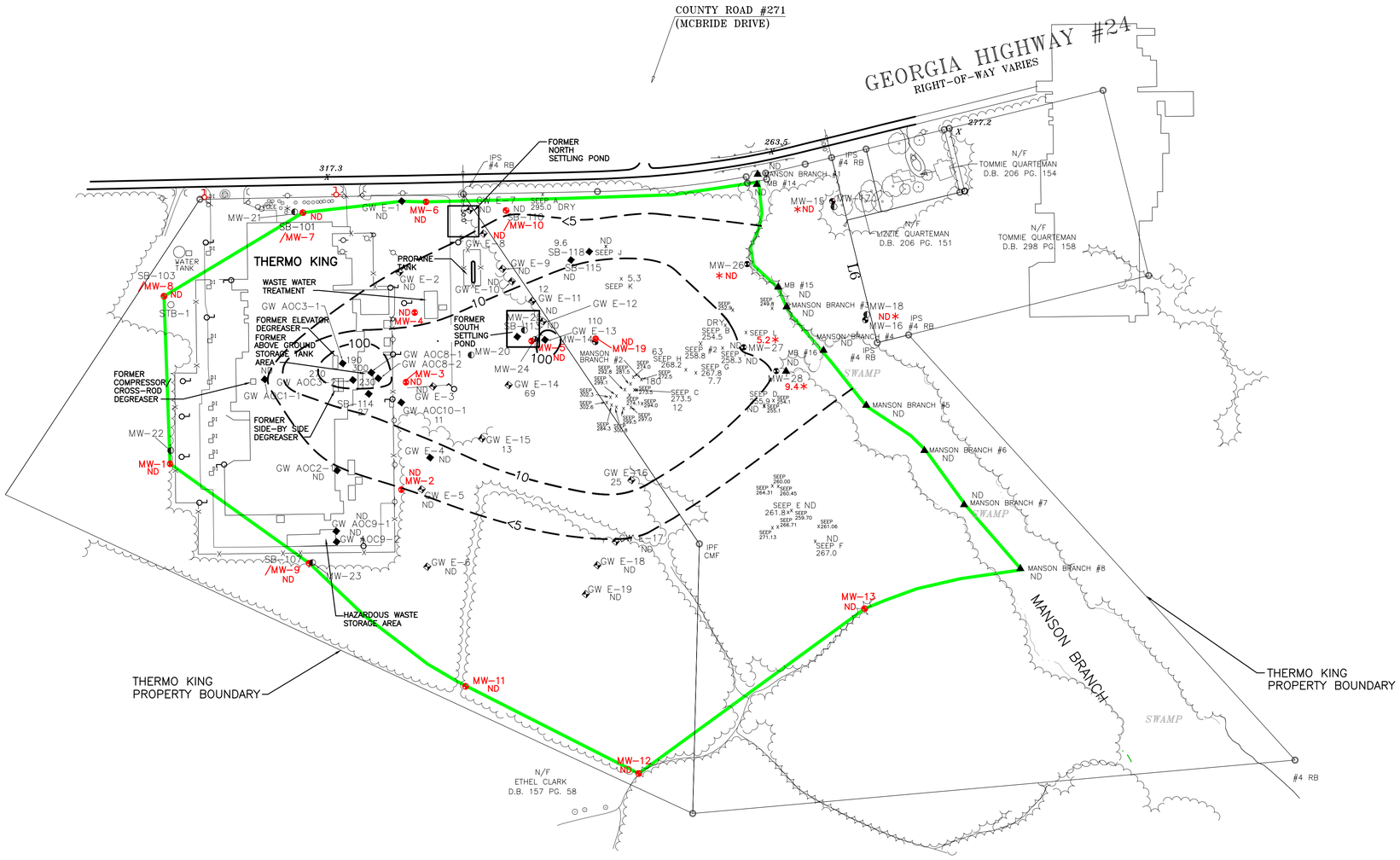

LEGEND

MW-1	GROUND-WATER MONITORING WELL INSTALLED IN UPPERMOST WATER-BEARING ZONE (ESC 2000, MW-1 TO MW-6)
MW-7	GROUND-WATER MONITORING WELL INSTALLED IN UPPERMOST WATER-BEARING ZONE (MACTEC 2003, MW-7 TO MW-13 AND MW-19) (MW-15 AND MW-16 INSTALLED IN ALLUVIUM DEPOSITS ON EAST SIDE OF MANSON BRANCH)
MW-14	GROUND-WATER MONITORING WELL INSTALLED IN INTERMEDIATE WATER-BEARING ZONE (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23 AND MW-25)
MW-24	GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
GW-E-2	DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
GW-E-1	SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16) (MANSON BRANCH #1, #3 THROUGH #9)
X SEEP A 299.0	WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC NOV. 2004: SEEPS A THROUGH J, MANSON BRANCH #2, SEEP #2)
27	CIS-1,2-DICHLOROETHENE CONCENTRATION IN ug/L IN GROUND WATER
100	ISO CONCENTRATION CONTOUR FOR CIS-1,2-DICHLOROETHENE CONCENTRATION IN ug/L BASED ON DATA COLLECTED FROM 2000 THROUGH 2010
ND	NOT DETECTED
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	WATER
	HORIZONTAL EXTENT OF CIS-1,2-DICHLOROETHENE IN UPPERMOST WATER-BEARING ZONE (ND LINE)
	FENCE
DI	DROP INLET
SEEP 299.5	WATER SEEP WITH ELEVATION
	PROPERTY BOUNDARY
*	CONSTITUENT CONCENTRATION IN GROUND WATER IN WELLS SCREENING THE ALLUVIAL MATERIAL ALONG MANSON BRANCH

NOTE: MOST CURRENT GROUND-WATER ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000, 2003 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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ISO-CONCENTRATION MAP OF CIS-1,2-DICHLOROETHENE IN GROUND WATER IN THE UPPERMOST WATER-BEARING ZONE

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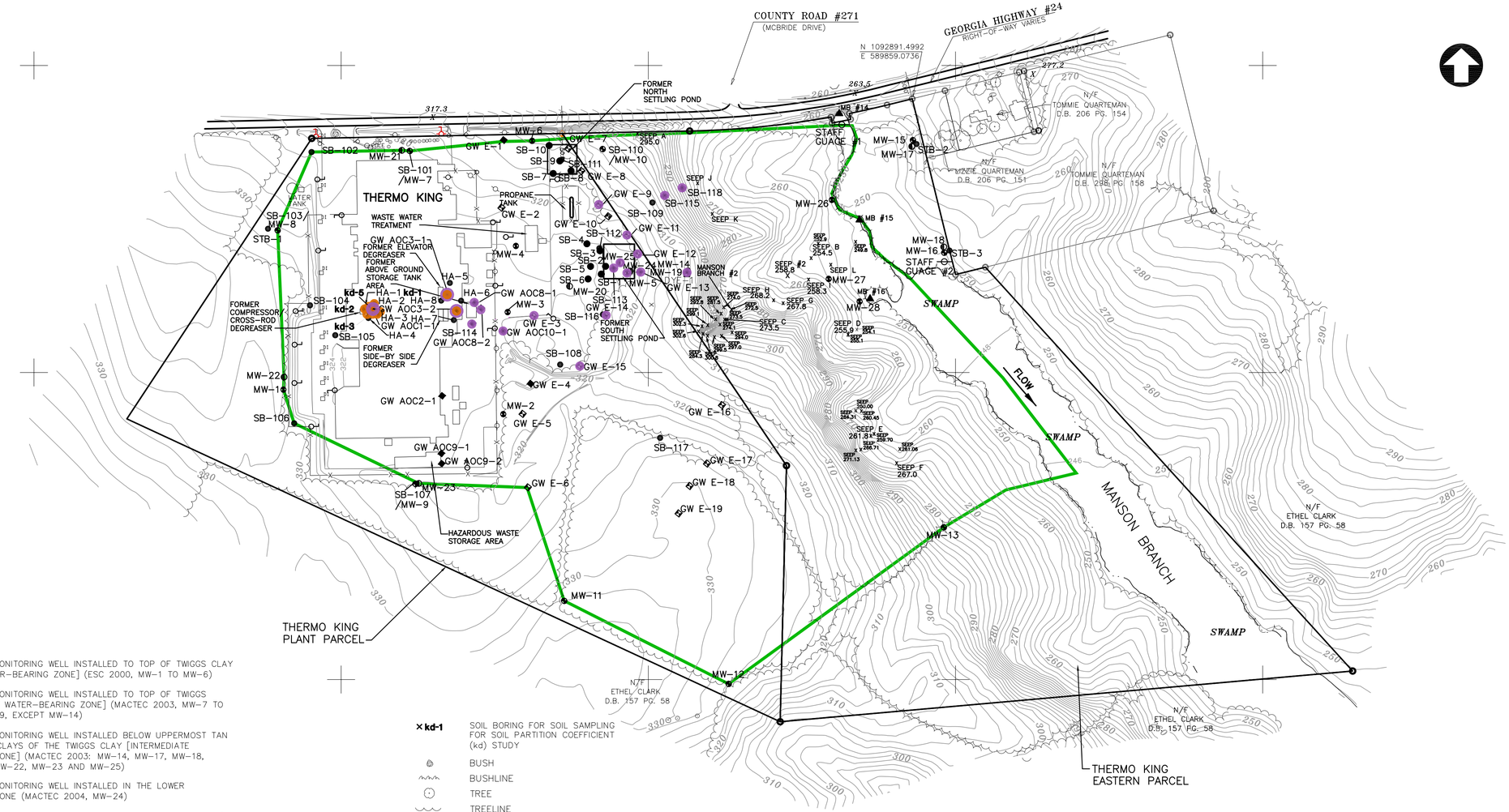

LEGEND

- MW-1 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
- MW-7 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
- MW-14 — GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23 AND MW-25)
- MW-24 — GROUND-WATER MONITORING WELL INSTALLED IN THE LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
- GW E-2 — DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
- GW E-1 — SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
- SB-7 — SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB-1 TO SB-10, SB-101 TO SB-112, SB-116 AND SB-117 AND HA-1 TO HA-8) (SOIL BORINGS FOR SOIL SAMPLING SB-101, SB-103, SB-107, SB-110 WERE COMPLETED AS MONITORING WELLS MW-7, MW-8, MW-9, AND MW-10 RESPECTIVELY) BORINGS STB-1, STB-2 AND STB-3 ARE STRATIGRAPHIC BORINGS
- SEEP A 299.0 — WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
- SEEP 252.9 — WATER SEEP WITH ELEVATION
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
- STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
- DYE INJECTION WELL
- kd-1 — SOIL BORING FOR SOIL SAMPLING FOR SOIL PARTITION COEFFICIENT (kd) STUDY
- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- STREAM
- FENCE
- 300 — TOPOGRAPHIC CONTOUR
- DI — DROP INLET
- LIGHT POLE
- PROPERTY BOUNDARY
- CONSTITUENT CONCENTRATIONS IN SOIL DO NOT MEET TYPES 1 OR 2 OR 3 OR 4 RISK REDUCTION STANDARDS
- CONSTITUENT CONCENTRATIONS IN GROUND WATER DO NOT MEET TYPES 1/3 OR 2 OR 4 RISK REDUCTION STANDARDS (MOST RECENT GROUND-WATER ANALYTICAL RESULTS PER LOCATION USED)
- EXTENT OF HSRA DEFINED SITE

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC. USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. IN SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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RISK REDUCTION STANDARDS COMPLIANCE MAP

FIGURE 6.0

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UPDATED RISK REDUCTION STANDARDS CALCULATIONS

Table K-1
Type 1 through Type 4 Ground Water RRS, mg/L

Parameter	Chronic Reference Dose Oral (mg/kg/day)	Chronic Reference Dose Inhalation (mg/kg/day)	Cancer Slope Factor Oral (mg/kg/day)-1	Cancer Slope Factor Inhalation (mg/kg/day)-1	Weight of Evidence	Source for Chronic Rfds and CSFs	Type 1/ Type 3 (mg/L)		Type 2 Standard (mg/L) Adult Noncarcinogenic	Type 2 Standard (mg/L) Adult Carcinogenic	Type 2 Standard (mg/L) Child Noncarcinogenic	Type 2 Standard (mg/L) Child Carcinogenic	Type 2 Overall	Type 4 Site-specific (mg/L) (a) Occupational Noncarcinogenic	Type 4 Site-specific (mg/L) (a) Occupational Carcinogenic	Type 4 Overall
1,1,1-Trichloroethane	2.0E+00	1.4E+00	ND	ND	D	IRIS	0.2		9.0	ND	2.7	ND	**2.7**	25.1	ND	25.1
1,1,2-Trichloroethane	4.0E-03	ND	5.7E-02	5.6E-02	C	IRIS	0.005		0.15	0.0025	0.063	0.0038	**0.0025**	0.41	0.0085	0.0085
1,1-Dichloroethene	5.0E-02	5.7E-02	ND	ND	C	IRIS	0.007		0.34	ND	0.10	ND	**0.10**	0.95	ND	0.95
1,4-Dioxane	3.0E-02	1.0E+00	1.0E-01	2.7E-02	B2	IRIS, Cal EPA, ATSDR	0.002	DL	1.0	0.0036	0.38	0.0060	**0.0036**	2.7	0.012	0.012
Chloroform	1.0E-02	2.8E-02	3.1E-02	8.1E-02	B2	IRIS, Cal EPA, ATSDR	0.08		0.13	0.0020	0.043	0.0029	**0.0020**	0.37	0.0066	**0.0066**
cis-1,2-Dichloroethene	1.0E-02	ND	ND	ND	D	PPRTV	0.07		0.37	ND	0.16	ND	**0.16**	1.0	ND	**1.0**
Ethylbenzene	1.0E-01	2.9E-01	1.1E-02	8.8E-03	D	IRIS, Cal EPA	0.7		1.3	0.015	0.43	0.024	**0.015**	3.7	0.052	**0.052**
Isopropylbenzene (Cumene)	1.0E-01	1.1E-01	ND	ND	D	IRIS	0.005	DL	0.68	ND	0.21	ND	**0.21**	1.9	ND	**1.9**
Methylene chloride	6.0E-02	2.9E-01	7.5E-03	1.7E-03	B2	IRIS, ATSDR	0.005		1.1	0.053	0.37	0.090	**0.053**	3.0	0.18	**0.18**
Naphthalene	2.0E-02	8.6E-04	ND	1.2E-01	C	IRIS, Cal EPA	0.02		0.0062	0.0014	0.0018	0.0020	**0.0014**	0.017	0.0048	**0.0048**
Tetrachloroethene	1.0E-02	7.7E-02	5.4E-01	2.1E-02	B-C2	IRIS, Cal EPA, ATSDR	0.005		0.22	0.0013	0.079	0.0026	**0.0013**	0.62	0.0044	**0.0044**
Toluene	8.0E-02	1.4E+00	ND	ND	D	IRIS	1		2.3	ND	0.88	ND	**0.88**	6.4	ND	**6.4**
Trichloroethene	ND	ND	5.9E-03	7.0E-03	B2	Cal EPA	0.005		ND	0.021	ND	0.031	**0.021**	ND	0.070	**0.070**
Xylenes, mixed	2.0E-01	2.9E-02	ND	ND	NA	IRIS	10		0.20	ND	0.059	ND	**0.059**	0.57	ND	**0.57**
Vinyl Chloride (adult)	3.00E-03	2.90E-02	7.20E-01	1.50E-02	A	IRIS	0.002		0.072	0.0011	0.026	0.0022	**0.0011**	0.20	0.0040	**0.0040**

Source Description: IRIS - Integrated Risk Information System, USEPA.
ATSDR - Agency for Toxic Substances and Disease Registry
NCEA - National Center for Exposure Assessment, USEPA.
PPRTV - Provisional Peer Reviewed Toxicity Value
Cal EPA - California Environmental Protection Agency
Weight of Evidence from IRIS, 2010.
ND Toxicity values not available
NA Not available
(a) Volatilization factor for non-residential reduced by one-half from default because no showering or cooking occurs at the facility. Agreement from EPD on May 4, 2004.

Equation 2 (Noncarcinogens):

$$C = \frac{THI \times BW \times AT \times 365 days/year}{EF \times ED \times [(1/RfDi \times K \times IRa) + (1/RfDo \times IRw)]}$$

Equation 1 (Carcinogens):

$$C = \frac{TR \times BW \times AT \times 365 days/year}{EF \times ED \times [(SFi \times K \times IRa) + (SFo \times IRw)]}$$

Where:

	Type 2 Adult	Type 2 Parameters Child	Type 4 Site-specific Parameters
THI = Target Hazard Index =	1	1	1
BW = Body Weight =	70 kg	15 kg	70 kg
AT = Averaging Time =	30 years (noncarc.); 70 (carc.)	6 years (noncarc.); 70 (carcinogens)	25 years for noncarcinogens; 70 years for carcinogens
EF = Exposure Frequency =	350 days/year	350 days/year	250 day/year
EF = Exposure Frequency (Irrigation) =			
ED = Exposure Duration =	30 years	6 years	25 year
RfDi = Inhalation Reference Dose =	Chemical Specific	Chemical Specific	Chemical Specific
K = Volatilization Factor = 0.0005 x 1000 L/m3 =	0.5 L/m3	0.5 L/m3	0.25 L/m3 (a)
IRa = Inhalation Rate for Air =	20 m3/day	15 m3/day	20 m3/day
RfDo = Oral Reference Dose =	Chemical Specific	Chemical Specific	Chemical Specific
IRw = Ingestion Rate for Water =	2 L/day	1 L/day (EFS)	1 L/day
TR = Target Risk =	0.00001	0.00001	0.00001
CSFo = Oral Cancer Slope Factor =	Chemical Specific	Chemical Specific	Chemical Specific
CSFi = Inhalation Cancer Slope Factor =	Chemical Specific	Chemical Specific	Chemical Specific

Prepared by:EJS 9/9/09
Checked by: LMS 11/22/10

Table K-2
Type 1 and 3 Soil Calculations, mg/kg

SUBSTANCE	RFDO	RFDI	CSFO	CSFI	Source for Chronic Rfd and CSFs	Weight of Evidence	Volatilization Factor (m^3/kg)	Table 2 Appendix III	Appendix I	Type 1 GW x 100	Number 1	Risk-Based Residential Type 1 NC-Type 1	Risk-Based Residential Type 1 C-Type 1	Risk-Based Residential Type 1 Type 1 RRS	Overall Type 1 RRS	Risk-Based Nonresidential Type 3 NC-Type 3	Risk-Based Nonresidential Type 3 C-Type 3	Risk-Based Soil Type 3 RRS	Surface Soil Type 3 RRS	Subsurface Soil Type 3 RRS
1,1,1-Trichloroethane	2.0E+00	1.4E+00	ND	ND	IRIS	D	1.6E+03	ND	5.4E+00	2.0E+01	2.0E+01	1.0E+04	ND	1.0E+04	2.0E+01	1.1E+04	ND	1.1E+04	2.0E+01	2.0E+01
1,1,2-Trichloroethane	4.0E-03	ND	5.7E-02	5.6E-02	IRIS	C	8.8E+03	ND	5.0E-01	5.0E-01	5.0E-01	2.6E+03	1.7E+02	1.7E+02	5.0E-01	8.2E+03	2.2E+01	2.2E+01	5.0E-01	5.0E-01
1,1-Dichloroethene	5.0E-02	5.7E-02	ND	ND	IRIS	C	8.7E+02	ND	3.6E-01	7.0E-01	7.0E-01	2.4E+02	ND	2.4E+02	7.0E-01	2.5E+02	ND	2.5E+02	7.0E-01	7.0E-01
1,4-Dioxane	3.0E-02	1.0E+00	1.0E-01	2.7E-02	IRIS, Cal EPA, ATSDR	B2	2.1E+04	ND	1.3E-01	5.0E-01	5.0E-01	1.6E+04	5.6E+01	5.6E+01	5.0E-01	ND	9.4E+01	9.4E+01	5.0E-01	5.0E-01
Chloroform	1.0E-02	2.8E-02	3.1E-02	8.1E-02	IRIS, Cal EPA, ATSDR	B2	2.8E+03	ND	6.8E-01	8.0E+00	8.0E+00	3.6E+02	3.8E+00	3.8E+00	3.8E+00	3.9E+02	4.9E+00	4.9E+00	4.9E+00	8.0E+00
cis-1,2-Dichloroethylene	1.0E-02	ND	ND	ND	PPRTV	D	2.7E+03	ND	5.3E-01	7.0E+00	7.0E+00	6.4E+03	ND	6.4E+03	7.0E+00	2.0E+04	ND	2.0E+04	7.0E+00	7.0E+00
Ethylbenzene	1.0E-01	2.9E-01	1.1E-02	8.8E-03	IRIS, Cal EPA	D	7.7E+03	ND	2.0E+01	7.0E+01	7.0E+01	9.2E+03	9.2E+01	9.2E+01	7.0E+01	1.1E+04	1.2E+02	1.2E+02	7.0E+01	7.0E+01
Isopropylbenzene	1.0E-01	1.1E-01	ND	ND	IRIS	D	8.5E+03	ND	2.2E+01	5.0E-01	2.2E+01	4.4E+03	ND	4.4E+03	2.2E+01	4.8E+03	ND	4.8E+03	2.2E+01	2.2E+01
Methylene chloride	6.0E-02	2.9E-01	7.5E-03	1.7E-03	IRIS, ATSDR	B2	2.1E+03	ND	8.0E-02	5.0E-01	5.0E-01	2.8E+03	1.3E+02	1.3E+02	5.0E-01	3.1E+03	1.7E+02	1.7E+02	5.0E-01	5.0E-01
Naphthalene	2.0E-02	8.6E-04	ND	1.2E-01	IRIS, Cal EPA	C	6.5E+04	ND	1.0E+02	2.0E+00	1.0E+02	2.6E+02	6.1E+02	2.6E+02	1.0E+02	2.8E+02	7.7E+02	2.8E+02	1.0E+02	1.0E+02
Tetrachloroethene	1.0E-02	7.7E-02	5.4E-01	2.1E-02	IRIS, Cal EPA, ATSDR	B-C2	2.7E+03	ND	1.8E-01	5.0E-01	5.0E-01	8.6E+02	9.5E+00	9.5E+00	5.0E-01	1.0E+03	1.5E+01	1.5E+01	5.0E-01	5.0E-01
Toluene	8.0E-02	1.4E+00	ND	ND	IRIS	D	5.6E+03	ND	1.4E+01	1.0E+02	1.0E+02	2.2E+04	ND	2.2E+04	1.0E+02	3.2E+04	ND	3.2E+04	1.0E+02	1.0E+02
Trichloroethene	ND	ND	5.9E-03	7.0E-03	Cal EPA	B2	2.4E+03	ND	1.3E-01	5.0E-01	5.0E-01	ND	3.9E+01	3.9E+01	5.0E-01	ND	5.0E+01	5.0E+01	5.0E-01	5.0E-01
Xylene (total)	2.0E-01	2.9E-02	ND	ND	IRIS	NA	7.9E+03	ND	2.0E+01	1.0E+03	1.0E+03	1.1E+03	ND	1.1E+03	1.0E+03	1.1E+03	ND	1.1E+03	1.0E+03	1.0E+03

NC Noncarcinogen
C Carcinogen
RRS Risk Reduction Standard
ND No Data for this route

Prepared by: EJS 9/9/09
Checked by: LMS 11/22/10

Table K-3
Type 2 Soil Calculations, mg/kg

SUBSTANCE	Volatilization Factor (m^3/kg)	Residential Leaching Criteria	Residential Child		Residential Adult		Overall Type 2 RRS
			NC-Type 2	C-Type 2	NC-Type 2	C-Type 2	
1,1,1-Trichloroethane	1.6E+03	1.9E+01	2.2E+03	ND	7.9E+03	ND	1.9E+01
1,1,2-Trichloroethane	8.8E+03	3.2E-02	3.1E+02	1.7E+01	3.1E+02	1.3E+01	3.2E-02
1,1-Dichloroethene	8.7E+02	7.2E-01	5.1E+01	ND	1.8E+02	ND	7.2E-01
1,4-Dioxane	2.1E+04	1.5E-02	2.1E+03	4.7E+01	ND	4.8E+01	1.5E-02
Chloroform	2.8E+03	9.4E-01	7.3E+01	4.1E+00	2.7E+02	2.9E+00	9.4E-01
cis-1,2-Dichloroethylene	2.7E+03	4.4E-01	7.8E+02	ND	7.8E+02	ND	4.4E-01
Ethylbenzene	7.7E+03	1.6E+01	1.8E+03	9.4E+01	7.2E+03	7.1E+01	1.6E+01
Isopropylbenzene	8.5E+03	6.9E+00	8.9E+02	ND	3.4E+03	ND	6.9E+00
Methylene chloride	2.1E+03	2.7E-01	5.6E+02	1.3E+02	2.1E+03	1.0E+02	2.7E-01
Naphthalene	6.5E+04	1.3E+00	5.6E+01	6.5E+01	2.0E+02	4.6E+01	1.3E+00
Tetrachloroethene	2.7E+03	4.5E-02	1.7E+02	8.1E+00	6.8E+02	8.0E+00	4.5E-02
Toluene	5.6E+03	1.4E+01	3.6E+03	ND	1.9E+04	ND	1.4E+01
Trichloroethene	2.4E+03	1.8E+00	ND	4.1E+01	ND	2.9E+01	1.8E+00
Xylene (total)	7.9E+03	2.0E+02	2.3E+02	ND	8.1E+02	ND	2.0E+02

NC Noncarcinogen
C Carcinogen
RRS Risk Reduction Standard
ND No Data

Prepared by: EJS 9/9/09
Checked by: LMS 11/22/10

Table K-4
Type 4 Soil Calculations, mg/kg

	Direct Contact Only Construction Worker			Nonresidential Leaching	Industrial Worker		Direct Contact Type 4	Default Ind. Worker Overall (a)	
SUBSTANCE	NC-Type 4	C-Type 4	Type 4 RRS	**Criteria**	**NC-Type 4**	**C-Type 4**	**RRS**	**Type 4 RRS**	
1,1,1-Trichloroethane	2.2E+04	ND	2.2E+04	1.7E+02	1.1E+04	ND	1.1E+04	1.7E+02	
1,1,2-Trichloroethane	2.5E+03	2.0E+03	2.0E+03	5.5E-02	8.2E+03	2.2E+01	2.2E+01	5.5E-02	
1,1-Dichloroethene	5.0E+02	ND	5.0E+02	6.8E+00	2.5E+02	ND	2.5E+02	6.8E+00	
1,4-Dioxane	1.7E+04	4.9E+03	4.9E+03	4.9E-02	3.9E+04	9.4E+01	9.4E+01	4.9E-02	
Chloroform	7.0E+02	4.8E+02	4.8E+02	5.9E+00	3.9E+02	4.9E+00	4.9E+00	4.9E+00	
cis-1,2-Dichloroethene	6.2E+03	ND	6.2E+03	4.4E-01	2.0E+04	ND	2.0E+04	4.4E-01	
Ethylbenzene	1.6E+04	1.1E+04	1.1E+04	1.6E+01	1.1E+04	1.2E+02	1.2E+02	1.6E+01	
Isopropylbenzene	8.5E+03	ND	8.5E+03	6.2E+01	4.8E+03	ND	4.8E+03	6.2E+01	
Methylene chloride	5.4E+03	1.5E+04	5.4E+03	9.2E-01	3.1E+03	1.7E+02	1.7E+02	9.2E-01	
Naphthalene	5.4E+02	7.7E+03	5.4E+02	1.3E+00	2.8E+02	7.7E+01	7.7E+01	1.3E+00	
Tetrachloroethene	1.6E+03	8.5E+02	9.0E+02	4.5E-02	1.0E+03	1.5E+01	1.5E+01	4.5E-02	
Toluene	3.1E+04	ND	3.1E+04	8.8E+01	3.2E+04	ND	3.2E+04	8.8E+01	
Trichloroethene	ND	4.8E+03	4.8E+03	1.8E+00	ND	5.0E+01	5.0E+01	1.8E+00	**(b) 1.8**
Xylene (total)	2.3E+03	ND	2.3E+03	2.0E+02	1.1E+03	ND	1.1E+03	2.0E+02	

(a) Includes comparison to Nonresidential Leaching Criteria. Nonresidential leaching criteria is higher of values based on Type 3 and Type 4 GW RRS.
(b) The approved leaching RRS is applied to areas beneath the building foundation because there is no potential for direct contact and the majority of these sub-foundation soils are greater than 2 feet in depth.
NC Noncarcinogen
C Carcinogen
RRS Risk Reduction Standard
ND No Data

Prepared by: EJS 9/9/09
Checked by: LMS 11/22/10

Table K-5
Exposure Parameters for Soil and Ground Water

Exposure Parameters for Type 4 Soil	Construction Worker	Source	Industrial Worker	Units	Source
Hazard Index	1	HSRA Rule	1		HSRA Rule
Target Risk	1E-05	HSRA Rule	1E-05		HSRA Rule
Body Weight	70	USEPA 2002	70	kg	USEPA 2002
Averaging Time, Carcinogen	70	USEPA 2002	70	years	USEPA 2002
Averaging Time, Noncarcinogen	0.5	Professional Judgment	25	years	USEPA 2002
Exposure Duration	0.5	Professional Judgment	25	years	USEPA 2002
Exposure Frequency	125	Professional Judgment	250	days/yr	USEPA 2002
Soil Ingestion Rate	330	USEPA 2002	50	mg/day	USEPA 2002
Air Inhalation Rate	20	USEPA 2002	20	m^3/day	USEPA 2002
PEF	4.63E+09	HSRA Rule	4.63E+09	m^3/kg	HSRA Rule
CF	1E-06	HSRA Rule	1E-06	kg/mg	HSRA Rule

Exposure Parameters for Type 2 Soil:	Residential Child	Residential Adult	Units	
Hazard Index	1	HSRA Rule	1	HSRA Rule
Target Risk	1E-05	HSRA Rule	1E-05	HSRA Rule
Body Weight	15	USEPA 2002	70 kg	USEPA 2002
Averaging Time, Carcinogen	70	USEPA 2002	70 years	USEPA 2002
Averaging Time, Noncarcinogen	6	USEPA 2002	30 years	USEPA 2002
Exposure Duration	6	USEPA 2002	30 years	USEPA 2002
Exposure Frequency	350	USEPA 2002	350 days/yr	USEPA 2002
Soil Ingestion Rate	200	USEPA 2002	100 mg/day	USEPA 2002
Air Inhalation Rate	15	HSRA Rule	20 m^3/day	USEPA 2002
PEF	4.63E+09	HSRA Rule	4.63E+09 m^3/kg	HSRA Rule
CF	1E-06	HSRA Rule	1E-06 kg/mg	HSRA Rule

Exposure Parameters for Type 1 and Type 3 Soils:	Residential Type 1		Nonresidential Type 3	Units	
Hazard Index	1	HSRA Rule	1		HSRA Rule
Target Risk (Class A & B)	1.E-05	HSRA Rule	1E-05		HSRA Rule
Target Risk (Class C)	1.E-04	HSRA Rule	1E-04		HSRA Rule
Body Weight	70	HSRA Rule	70	kg	HSRA Rule
Averaging Time, Carcinogen	70	HSRA Rule	70	years	HSRA Rule
Averaging Time, Noncarcinogen	30	HSRA Rule	25	years	HSRA Rule
Exposure Duration	30	HSRA Rule	25	years	HSRA Rule
Exposure Frequency	350	HSRA Rule	250	days/yr	HSRA Rule
Soil Ingestion Rate	114	HSRA Rule	50	mg/day	HSRA Rule
Air Inhalation Rate	15	HSRA Rule	20	m^3/day	HSRA Rule
PEF	4.63E+09	HSRA Rule	4.63E+09	m^3/kg	HSRA Rule
CF	1E-06	HSRA Rule	1E-06	kg/mg	HSRA Rule

Exposure Parameters for Type 4 Ground Water	Industrial Worker	Units	Source
Hazard Index	1		HSRA Rule
Target Risk	1E-05		HSRA Rule
Body Weight	70	kg	USEPA 2002
Averaging Time, Carcinogen	70	years	USEPA 2002
Averaging Time, Noncarcinogen	25	years	USEPA 2002
Exposure Duration	25	years	USEPA 2002
Exposure Frequency	250	day/year	USEPA 2002
Water Ingestion Rate	1	L/day	HSRA Rule Type 3
Air Inhalation Rate	20	m^3/day	USEPA 2002
Volatilization Factor = 0.0005 x 1000 L/m3 =	0.25	L/m3	Site-Specific

Exposure Parameters for Type 2 Ground Water:	Residential Child	Residential Adult	Units	
Hazard Index	1	1		HSRA Rule
Target Risk	1E-05	1E-05		HSRA Rule
Body Weight	15	70	kg	USEPA 2002
Averaging Time, Carcinogen	70	70	years	USEPA 2002
Averaging Time, Noncarcinogen	6	30	years	USEPA 2002
Exposure Duration	6	30	years	USEPA 2002
Exposure Frequency	350	350	day/year	USEPA 2002
Water Ingestion Rate	1	2	L/day	HSRA Rule Type 1
Air Inhalation Rate	15	20	m^3/day	HSRA Rule Type 1
Volatilization Factor = 0.0005 x 1000 L/m3 =	0.5	0.5	L/m3	HSRA Rule Type 1

Sources
HSRA Rule July 2003
USEPA 2002 Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, OSWER 9355.4-24, December 2002

Prepared by: EJS 9/9/09
Checked by: LMS 11/22/10

Table K-6a
Area 1
Soil to Ground water Leachability

	K_d (a) (L/kg)	K_{oc} (L/kg)	Source	$Ø_w$	Øa	H' (unitless)	Øw+Øa*H'/$Þ_b$	Groundwater Type 1/3 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 1/3 C_s (mg/kg)	Groundwater Type 2 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 2 C_s (mg/kg)	Residential Cs (mg/kg)	Groundwater Type 4 RRS (c) (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 4 C_s (mg/kg)	Overall Cs (mg/kg)	
1,1,1-Trichloroethane	8.78E-02	4.39E+01	RSL	0.3	0.13	7.00E-01	0.2607	2.0E-01	4.0E+00	1.4E+00	2.7E+00	5.4E+01	1.9E+01	1.9E+01	2.5E+01	5.0E+02	1.7E+02	1.7E+02	
1,1,2-Trichloroethane	1.21E-01	6.07E+01	RSL	0.3	0.13	3.40E-02	0.2029	5.0E-03	1.0E-01	3.2E-02	2.5E-03	5.0E-02	1.6E-02	3.2E-02	8.5E-03	1.7E-01	5.5E-02	5.5E-02	
1,1-Dichloroethene	6.36E-02	3.18E+01	RSL	0.3	0.13	1.10E+00	0.2953	7.0E-03	1.4E-01	5.0E-02	1.0E-01	2.0E+00	7.2E-01	7.2E-01	9.5E-01	1.9E+01	6.8E+00	6.8E+00	
1,4-Dioxane	5.26E-03	2.63E+00	RSL	0.3	0.13	2.00E-04	0.2000	2.0E-03	4.0E-02	8.2E-03	3.6E-03	7.2E-02	1.5E-02	1.5E-02	1.2E-02	2.4E-01	4.9E-02	4.9E-02	
cis-1,2-Dichloroethene	7.92E-02	3.96E+01	RSL	0.3	0.13	1.70E-01	0.2147	7.0E-02	1.4E+00	4.1E-01	1.6E-01	3.2E+00	9.4E-01	9.4E-01	1.0E+00	2.0E+01	5.9E+00	5.9E+00	
Chloroform	6.36E-02	3.18E+01	RSL	0.3	0.13	1.50E-01	0.2130	8.0E-02	1.6E+00	4.4E-01	2.0E-03	4.0E-02	1.1E-02	4.4E-01	6.6E-03	1.3E-01	3.7E-02	4.4E-01	(b)
Ethylbenzene	8.92E-01	4.46E+02	RSL	0.3	0.13	3.20E-01	0.2277	7.0E-01	1.4E+01	1.6E+01	1.5E-02	3.0E-01	3.4E-01	1.6E+01	5.2E-02	1.0E+00	1.2E+00	1.6E+01	(b)
Isopropylbenzene (Cumene)	1.40E+00	6.98E+02	RSL	0.3	0.13	4.70E-01	0.2407	5.0E-03	1.0E-01	1.6E-01	2.1E-01	4.2E+00	6.9E+00	6.9E+00	1.9E+00	3.8E+01	6.2E+01	6.2E+01	
Methylene chloride	4.34E-02	2.17E+01	RSL	0.3	0.13	1.30E-01	0.2113	5.0E-03	1.0E-01	2.5E-02	5.3E-02	1.1E+00	2.7E-01	2.7E-01	1.8E-01	3.6E+00	9.2E-01	9.2E-01	
Naphthalene	3.08E+00	1.54E+03	RSL	0.3	0.13	1.80E-02	0.2016	2.0E-02	4.0E-01	1.3E+00	1.4E-03	2.8E-02	9.2E-02	1.3E+00	4.8E-03	9.6E-02	3.2E-01	1.3E+00	(b)
Tetrachloroethene	1.90E-01	9.49E+01	RSL	0.3	0.13	7.20E-01	0.2624	5.0E-03	1.0E-01	4.5E-02	1.3E-03	2.6E-02	1.2E-02	4.5E-02	4.4E-03	8.8E-02	4.0E-02	4.5E-02	(b)
Toluene	4.68E-01	2.34E+02	RSL	0.3	0.13	2.70E-01	0.2234	1.0E+00	2.0E+01	1.4E+01	8.8E-01	1.8E+01	1.2E+01	1.4E+01	6.4E+00	1.3E+02	8.8E+01	8.8E+01	
Trichloroethene		(d)	Site	0.3	0.13	4.00E-01	0.2347			1.8E+00			1.8E+00	1.8E+00			1.8E+00	1.8E+00	(e)
Xylene	7.66E-01	3.83E+02	RSL	0.3	0.13	2.10E-01	0.2182	1.0E+01	2.0E+02	2.0E+02	5.9E-02	1.2E+00	1.2E+00	2.0E+02	5.7E-01	1.1E+01	1.1E+01	2.0E+02	(b)

Site Site-Specific Determination using SPLP data
RSL Regional Screening Level Chemical Parameters Table, May 2010
$Ø_w$ Water-filled soil porosity = 0.3 (L/L)
$Ø_a$ Air-filled soil porosity = 0.13 (L/L)
H' Dimensionless Henry Law Constant (HLC x 41) (unitless)
$Þ_b$ Dry soil bulk density = 1.5 kg/L
RRS Risk Reduction Standard
C_w Target Leachate Concentration (mg/L)
C_s Screening Level in soil (mg/kg)
(a) $K_d = K_{oc} * f_{oc}$ where f_{oc} equal 0.002
(b) C_s based on Type 1 RRS higher than C_s based on Type 4 RRS
(c) Using VF of 0.25 L/m^3
(d) Site -specific information was used
(e) 1.8 mg/kg was approved as the leaching RRS for TCE by EPD on January 19, 2007.

Prepared by : EJS 9/9/09
Checked by: LMS 11/22/10

Table K-6b
Area 2
Soil to Ground water Leachability

	K_d (a) (L/kg)	K_{oc} (L/kg)	Source	$Ø_w$	Øa	H' (unitless)	Øw+Øa*H'/$Þ_b$	Groundwater Type 1/3 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 1/3 C_s (mg/kg)	Groundwater Type 2 RRS (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 2 C_s (mg/kg)	Residential Cs (mg/kg)	Groundwater Type 4 RRS (c) (C_w, mg/L)	C_w*20 (mg/L)	Pathway Type 4 C_s (mg/kg)	Non-Residential Cs (mg/kg)	
1,1,1-Trichloroethane	8.78E-02	4.39E+01	RSL	0.3	0.13	7.00E-01	0.2607	2.0E-01	4.0E+00	1.4E+00	2.7E+00	5.4E+01	1.9E+01	1.9E+01	2.5E+01	5.0E+02	1.7E+02	1.7E+02	
1,1,2-Trichloroethane	1.21E-01	6.07E+01	RSL	0.3	0.13	3.40E-02	0.2029	5.0E-03	1.0E-01	3.2E-02	2.5E-03	5.0E-02	1.6E-02	3.2E-02	8.5E-03	1.7E-01	5.5E-02	5.5E-02	
1,1-Dichloroethene	6.36E-02	3.18E+01	RSL	0.3	0.13	1.10E+00	0.2953	7.0E-03	1.4E-01	5.0E-02	1.0E-01	2.0E+00	7.2E-01	7.2E-01	9.5E-01	1.9E+01	6.8E+00	6.8E+00	
1,4-Dioxane	5.26E-03	2.63E+00	RSL	0.3	0.13	2.00E-04	0.2000	2.0E-03	4.0E-02	8.2E-03	3.6E-03	7.2E-02	1.5E-02	1.5E-02	1.2E-02	2.4E-01	4.9E-02	4.9E-02	
cis-1,2-Dichloroethene	7.92E-02	3.96E+01	RSL	0.3	0.13	1.70E-01	0.2147	7.0E-02	1.4E+00	4.1E-01	1.6E-01	3.2E+00	9.4E-01	9.4E-01	1.0E+00	2.0E+01	5.9E+00	5.9E+00	
Chloroform	6.36E-02	3.18E+01	RSL	0.3	0.13	1.50E-01	0.2130	8.0E-02	1.6E+00	4.4E-01	2.0E-03	4.0E-02	1.1E-02	4.4E-01	6.6E-03	1.3E-01	3.7E-02	4.4E-01	(b)
Ethylbenzene	8.92E-01	4.46E+02	RSL	0.3	0.13	3.20E-01	0.2277	7.0E-01	1.4E+01	1.6E+01	1.5E-02	3.0E-01	3.4E-01	1.6E+01	5.2E-02	1.0E+00	1.2E+00	1.6E+01	(b)
Isopropylbenzene (Cumene)	1.40E+00	6.98E+02	RSL	0.3	0.13	4.70E-01	0.2407	5.0E-03	1.0E-01	1.6E-01	2.1E-01	4.2E+00	6.9E+00	6.9E+00	1.9E+00	3.8E+01	6.2E+01	6.2E+01	
Methylene chloride	4.34E-02	2.17E+01	RSL	0.3	0.13	1.30E-01	0.2113	5.0E-03	1.0E-01	2.5E-02	5.3E-02	1.1E+00	2.7E-01	2.7E-01	1.8E-01	3.6E+00	9.2E-01	9.2E-01	
Naphthalene	3.08E+00	1.54E+03	RSL	0.3	0.13	1.80E-02	0.2016	2.0E-02	4.0E-01	1.3E+00	1.4E-03	2.8E-02	9.2E-02	1.3E+00	4.8E-03	9.6E-02	3.2E-01	1.3E+00	(b)
Tetrachloroethene	1.90E-01	9.49E+01	RSL	0.3	0.13	7.20E-01	0.2624	5.0E-03	1.0E-01	4.5E-02	1.3E-03	2.6E-02	1.2E-02	4.5E-02	4.4E-03	8.8E-02	4.0E-02	4.5E-02	(b)
Toluene	4.68E-01	2.34E+02	RSL	0.3	0.13	2.70E-01	0.2234	1.0E+00	2.0E+01	1.4E+01	8.8E-01	1.8E+01	1.2E+01	1.4E+01	6.4E+00	1.3E+02	8.8E+01	8.8E+01	
Trichloroethene		(d)	RSL	0.3	0.13	4.00E-01	0.2347			1.8E+00			1.8E+00	1.8E+00			1.8E+00	1.8E+00	(e)
Xylene	7.66E-01	3.83E+02	RSL	0.3	0.13	2.10E-01	0.2182	1.0E+01	2.0E+02	2.0E+02	5.9E-02	1.2E+00	1.2E+00	2.0E+02	5.7E-01	1.1E+01	1.1E+01	2.0E+02	(b)

Site Site-Specific Determination using SPLP data
RSL Regional Screening Level Chemical Parameters Table, May 2010
$Ø_w$ Water-filled soil porosity = 0.3 (L/L)
$Ø_a$ Air-filled soil porosity = 0.13 (L/L)
H' Dimensionless Henry Law Constant (HLC x 41) (unitless)
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C_w Target Leachate Concentration (mg/L)
C_s Screening Level in soil (mg/kg)
(a) $K_d = K_{oc} * f_{oc}$ where f_{oc} equal 0.002
(b) C_s based on Type 1 RRS higher than C_s based on Type 4 RRS
(c) Using VF of 0.25 L/m^3
(d) Area 2-specific value
(e) 1.8 mg/kg was approved as the leaching RRS for TCE by EPD on January 19, 2007.

Prepared by : EJS 9/9/09
Checked by: LMS 11/22/10

APPENDIX C

REVISED REMEDIATION PLAN

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Figure VRP-5 Schedule for Implementation of Voluntary Remediation Plan
Figure VRP-6 Distribution and Extent of Detected Constituents in Groundwater

C 1.0 PROPOSED REMEDIATION PLAN

It is Thermo King's intent to remove the site from the Hazardous Site Inventory (HSI) through implementation of an efficient Voluntary Remediation Plan (VRP) that is protective of human health and the environment. Site features supporting this action include the following:

- The horizontal and vertical extent of contaminants in surface and subsurface soils have been delineated; soil-sampling locations with concentrations of 1,4-dioxane and/or trichloroethene that exceed Type 1 through Type 4 RRS are located beneath the east and west sides of the manufacturing building floor slab, in areas of former degreaser operations (Figure 6.0 of this Application). The floor slab precludes direct exposure of facility personnel to impacted soils, thus rendering potential exposure pathways incomplete. Soils outside of the building comply with Type 1 through Type 4 RRS.

- Workers in the manufacturing plant in areas where vapor degreasers were formerly operated may be subject to vapors emanating from residual constituents, primarily the volatile organic compounds (VOCs) trichloroethene (TCE) and 1,4-dioxane, that remain in soils below the floor slab in these areas. Thermo King evaluated the incidental risks resulting from vapor intrusion in accordance with the February 22, 2004 USEPA "User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings" and concluded that the resulting hazard indices and incremental risk values were within the acceptable range and estimated indoor air concentrations would not exceed OSHA exposure limits for ongoing facility operations (see Appendix B of VRP Application submitted March 18, 2010). Additionally, Thermo King has completed the calculation of risk-based soil and groundwater concentrations protective of occupational receptors exposed to indoor air to further demonstrate that current concentrations in soil and groundwater do not pose an unacceptable risk or hazard to on-site receptors. The resulting risk-based goals are many times greater than the maximum detected soil and groundwater concentrations, further demonstrating that the vapor intrusion pathway poses a very minimal risk (see Responses to Comments 10 and 11 and Appendix B of VRP Application submitted March 18, 2010).

- The horizontal and vertical extent of constituents in groundwater has been delineated. Impacts to groundwater in the Uppermost water-bearing zone emanate from beneath the manufacturing

building and from the area of the former south settling pond. The Uppermost groundwater aquifer at the site is a perched groundwater zone that flows to the east and terminates on the sloping hillside above the west bank of Manson Branch. This groundwater discharges to seeps on the eroded slope above the west bank of Manson Branch to mix with groundwater in the alluvial deposits adjacent to Manson Branch eventually discharging into Manson Branch. Impacts to groundwater in the Intermediate water-bearing zone are located beneath and to the east of the area of the former south settling pond. Intermediate water-bearing zone groundwater flows to the west, towards the interior of the site. No impacted groundwater in either zone flows offsite. No impact to the Lower water-bearing zone has been detected. On-site groundwater is not a current source of potable or industrial use at the facility: i.e., there are no complete pathways for exposure of on-site or off-site receptors to impacted groundwater.

- Groundwater in the Uppermost water-bearing zone is a perched aquifer that discharges to surface seeps on the eroded slope above the west bank of Manson Branch. Along the western slope leading down to Manson Branch, the depth to perched groundwater naturally decreases going down slope to the point where some of the perched groundwater diffusely oozes to the ground surface as small seeps along the slope. Some of these seeps accumulate enough water in associated shallow depressions to allow sampling. Samples from three of these seeps exhibit VOC concentrations that exceed Georgia in-stream water quality criteria (ISWQC). The SLERA submitted in the January 29, 2010 VRP Application incorporating the 2008 seep water data indicated that the risk for ecological receptors from seep water and soil is below the USEPA benchmark value of 1. This finding was confirmed by the results of the 2010 seep water sampling.

- No impacts to surface water in Manson Branch have been detected. Groundwater impacts detected in October 2010 in new monitoring wells MW-27 and MW-28 installed immediately west of Manson Branch, were well below Georgia ISWQC (Table 4.5 in this VRP Application). Modeling of the Uppermost water-bearing zone (Appendix D of this VRP Application) indicates that water quality in Manson Branch will not be impacted above Georgia ISWQC. Modeling was conducted to assess potential impacts to Manson Branch associated with contaminants in the Uppermost zone groundwater discharging to seeps on the sloping hillside west of Manson Branch. Review of historic groundwater data (2000 forward) shows a decreasing trend in constituent (primarily TCE) concentrations. While somewhat more variable, a similar pattern is

observed in data for seeps C and Manson Branch #2. Based on an understanding of former facility operations utilizing these chemicals and on the observed water quality data, it is anticipated that constituent concentrations in the Uppermost groundwater and in the seeps will continue to decrease. Seep water constituents migrate toward Manson Branch through interrupted surface flow and as groundwater flow in the alluvial soil stratum. Current TCE/DCE concentrations in monitoring wells (MW-26, MW-27, and MW-28) installed in this alluvial zone just upgradient of Manson Branch are less than 10 µg/L. Modeling of groundwater flow from these well locations into Manson Branch indicate impacts at orders of magnitude less than ISWQC; similarly, modeling also indicates constituent concentrations in groundwater entering Manson Branch (as monitored in wells MW-27/MW-28) would need to be at levels exceeding those currently in groundwater in the seeps.

- The results of the fate and transport modeling of the Intermediate water-bearing zone (Appendix E of this VRP Application) predicts non-detectable concentrations of constituents TCE, cis-1,2-DCE, and VC) at the Point of Demonstration (POD) Well MW-22 for the simulated future period of 50 years.

- The groundwater and surface water usage map for the site vicinity has been updated (see Figure VRP-1). This map indicates that there are two water supply wells, Manson Branch, and a private fishing pond within a 1000-foot radius of the delineated extent of VOCs in groundwater. The two water supply wells and Manson Branch have been sampled and analyzed for VOCs and no VOCs have been detected. There are no complete pathways for site groundwater to impact either of the two wells or the fishing pond. Manson Branch will not be impacted at concentrations exceeding ISWQC.

Based on these features, specifically, the completed delineation of constituents in soil and groundwater and the absence of complete pathways of exposure above applicable standards for human or ecological receptors to constituents in soil and groundwater and to the limited potential risk to ecological receptors posed by exposure to surface seep waters, Thermo King proposes voluntary remediation activities as follows:

- Incomplete pathways for direct exposure of facility personnel to soils with constituent concentrations exceeding Risk Reduction Standards (Table VRP-2) (located beneath the

manufacturing building floor slab) will be maintained by means of an engineering control such that the floor slab overlying the area of impacted soils will be designated as an exposure barrier and any future facility operations that require penetration of that designated floor slab will be conducted using a health and safety plan prepared specifically for the proposed barrier affecting activity. Any floor slab penetrations will be repaired in a manner consistent with its designation as an exposure barrier. Annual inspections will be conducted to verify the integrity of the floor slab in the areas of impacted soils.

- An incomplete pathway of exposure to impacted groundwater will be maintained by establishing an institutional control to restrict use of site groundwater and execution of a covenant (Attachment A of this Application) restricting such use in conformance with the Georgia Uniform Environmental Covenants Act (Table VRP-3). All environmental sampling and any additional subsurface investigation will continue to be conducted under the direction of site-specific health and safety plans.

- Ecological receptors currently may have a complete exposure pathway to seep waters discharging from the Uppermost water-bearing zone on the slope above the west bank of Manson Branch. However, the concentrations of constituents present in these seep waters do not present an unacceptable risk to ecological receptors. Only three seeps (Seep C, Seep H, and Manson Branch #2), located in and adjacent to an eroded hillside gully, exhibit VOC concentrations that exceed the ISWQC (Figure VRP-6). The remaining seeps are either non-detect for VOCs or have concentrations well below the ISWQS for VOCs. An engineering control will be constructed to establish an incomplete pathway to water from those seeps where VOC concentrations exceed ISWQC. This physical barrier, a rip rap blanket, will be placed to preclude the surface expression of the seep water; e.g., the seep water will flow beneath the rip rap surface. The rip rap blanket will extend laterally such that VOC concentrations in seeps that surface downstream of the rip rap blanket will be below ISWQC. Figures VRP-2 through VRP-4 depicts the lateral extent, profile, and cross-sectional view of the proposed rip rap blanket, respectively.

- Potential impacts to Manson Branch associated with discharges from the Uppermost water bearing zone to seeps on the hillside slope above the west side of Manson Branch indicates it is very unlikely that such impacts would ever be at detectable concentrations, much less at concentrations exceeding ISWQC. Semi-annual sampling will be conducted to:

- Confirm the continued decrease in VOC concentrations in groundwater in the Uppermost water bearing zone and in seep waters,
- Confirm that potential ecological receptors are not exposed to seep water at concentrations that exceed the USEPA benchmark value of 1,
- Confirm that VOC concentrations in seep waters surfacing downgradient of the rip rap blanket do not exceed ISWQC,
- Confirm that Manson Branch is not impacted above ISWQC.

Specifically, samples will be collected from the following locations:

- Monitoring wells MW-5, MW-19, MW-27, and MW-28.
- Seep locations B, G, I, L, and #2.
- Manson Branch surface water locations #3, #5, #15, and #16.

Samples will be analyzed for site-specific VOCs. Water level measurements will be collected in all Uppermost water-bearing zone monitoring wells to evaluate groundwater flow direction. Semi-annual sampling will continue until the data demonstrate that human health and the environment are adequately protected and EPD concurs. For costing purposes, it is assumed that this semi-annual monitoring program will be conducted for a period of five years.

- Semi-annual sampling of selected Intermediate water-bearing zone monitoring wells (MW-14, MW-20, MW-22, and MW-25) will be conducted to further evaluate contaminant migration and degradation, confirm model predictions, and confirm that impacted groundwater will not migrate to the point of demonstration (POD) at levels that exceed applicable regulatory standards. Monitoring well MW-22 will be the POD well for the Intermediate water-bearing zone (Figure VRP-6 and Figure 4.1 in this Application). Samples will be analyzed for site-specific VOCs. Water level measurements will also be collected in all Intermediate monitoring wells to evaluate groundwater flow direction. Semi-annual sampling will continue until the data demonstrate that human health and the environment are adequately protected and EPD concurs. For costing purposes, it is assumed that semi-annual monitoring of the Intermediate water-bearing zone will be conducted for a period of five years.

EPD's February 18, 2010 letter states that their approval of the frequency and duration of monitoring will be based upon site-specific data and the submitted fate and transport model. The VRP Act itself does not specifically address long-term monitoring after the 5-year VRP implementation period is up and the final Compliance Status Report is submitted. If the 5-year monitoring period appears to support the modeling predictions, EPD could allow either cessation of monitoring or a decreased frequency of monitoring. Continued site inspections will likely be required on an annual basis to verify that the exposure barrier (floor slab) remains in place and in good condition. Long-term inspections of the rip-rap blanket may also be required, depending upon what the monitoring data indicates.

C 2.0 IMPLEMENTATION ACTIVITIES

A schedule describing the planned activities and a schedule for their implementation and reporting is included as Figure VRP-5. The estimated cost for implementing the VRP are outlined on Table VRP-1. Financial assurance for implementing the VRP will be submitted to EPD upon issuance of the director's approval of the VRP Application and Remediation Plan.

APPENDIX C TABLES

TABLE VRP-1
ESTIMATED COST FOR VRP IMPLEMENTATION
THERMO KING, LOUISVILLE, GEORGIA

CAPITAL COSTS

	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
1.0	**Design and Permitting**				$25,000	
2.0	**Surface Water Controls**				$100,000	
3.0	**Project Management and Support**				$15,000	
4.0	**Contingency (15%)**				$16,500	
	TOTAL CAPITAL COST				**$156,500**	
	ANNUAL COSTS					
5.0	**Annual Inspections, Maintenance, Sampling & Reporting**					
	7.1 Semi-Annual Groundwater Sampling					
	Labor	2	event	$3,000	$6,000	Assumes 3 days/event, 2-man crew
	Laboratory Analytical	22	ea	$150	$3,300	VOCs
	Rental Equipment	2	event	$800	$1,600	
	Mobilization/Demobilization/Travel Expenses/Supplies	2	event	$1,200	$2,400	
	7.2 Semi-Annual Seep/Surface Water Sampling					
	Labor	2	event	$2,500	$5,000	Assumes 2 days/event, 2-man crew
	Laboratory Analytical	20	ea	$150	$3,000	VOCs
	Rental Equipment	2	event	$400	$800	
	Mobilization/Demobilization/Travel Expenses/Supplies	2	ea	$800	$1,600	
	7.3 Reporting	2	ea	$8,500	$17,000	
	7.4 Engineering Inspection	1	ea	$2,500	$2,500	
	SUBTOTAL - Annual Costs				**$43,200**	
6.0	**Post-Implementation Compliance Status Report**	1	ea	$35,000	$35,000	

PRESENT VALUE ANALYSIS Discount Rate = 4%

End Year	COST TYPE	TOTAL COST	TOTAL PRESENT VALUE	CUMMULATIVE COST
0	FIRST YEAR CAPITAL COST	$156,500	$156,500	$156,500
1	ANNUAL O&M (Year 1)	$43,200	$43,200	$199,700
2	ANNUAL O&M (Year 2)	$43,200	$51,346	$251,046
3	ANNUAL O&M (Year 3)	$43,200	$39,941	$290,987
4	ANNUAL O&M (Year 4)	$43,200	$38,405	$329,392
5	ANNUAL O&M (Year 5)	$78,200	$66,846	$396,237
	TOTAL PRESENT VALUE OF ALTERNATIVE			**$396,237**

The cost opinion is provided for budgetary purposes. MACTEC anticipates issuing a formal Request for Proposal to obtain actual cost estimates from several contractors after final design is complete. Descriptions and opinions of cost are based on discussions with various contractors and related MACTEC experience. Actual scope of work and costs may vary as additional information and formal cost estimates are obtained.

Prepared By: GJW 12/16/2010
Checked By: ADA 12/16/2010

TABLE VRP-2: RISK REDUCTION STANDARDS PER SOILS TYPES 1 through 4 and CLEANUP CRITERIA

			Risk Reduction Standards (RRS) (mg/kg)															
	Maximum Detected Concentrations (mg/kg)		Type 1			Type 2			Type 3 Surface			Type 3 Subsurface			Type 4			CLEANUP CRITERIA
HSRA-Regulated Substance	Surface (a)	Subsurface (b)	RRS	Reference	Status	RRS	Reference	Status	RRS	Reference	Status	RRS	Reference	Status	RRS	Reference	Status	
Volatile Organic Compounds - SW8260B																		
1,1,1-Trichloroethane	0.18	2.3	20	GW x 100	C	19	Leaching	***	20	GW x 100	***	20	GW x 100	***	170	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
1,1,2-Trichloroethane	0.026	0.015	0.5	GW x 100	C	0.032	Leaching	***	0.5	GW x 100	***	0.5	GW x 100	***	0.055	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
1,1-Dichloroethene	0.023	0.051	0.7	GW x 100	C	0.72	Leaching	***	0.7	GW x 100	***	0.7	GW x 100	***	6.8	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
1,4-Dioxane	3600	2800	0.5	GW x 100	**E**	0.015	Leaching	**E**	0.5	GW x 100	**E**	0.5	GW x 100	**E**	0.049	G	**E**	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
cis-1,2-Dichloroethene	0.6	0.38	7	GW x 100	C	0.44	Leaching	***	7	GW x 100	***	7	GW x 100	***	0.44	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Ethylbenzene	ND	0.36	70	GW x 100	C	16	Leaching	***	70	GW x 100	***	70	GW x 100	***	16	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Isopropylbenzene	0.016	ND	22	Appendix I	C	6.9	Leaching	***	22	Appendix I	***	22	Appendix I	***	62	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Napthalene	ND	0.31	100	Appendix I	C	1.3	Leaching	***	100	Appendix I	***	100	Appendix I	***	1.3	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
m+p Xylene	ND	1.4	1000	GW x 100	C	200	Leaching	***	1000	GW x 100	***	1000	GW x 100	***	200	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Tetrachloroethene	0.013	0.011	0.5	GW x 100	C	0.045	Leaching	***	0.5	GW x 100	***	0.5	GW x 100	***	0.045	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Trichloroethene	4.1	2.6	0.5	GW x 100	**E**	1.8	Leaching (c)	**E**	0.5	GW x 100	**E**	0.5	GW x 100	**E**	1.8	Leaching (c)	**E**	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Chloroform	ND	0.011	3.8	GW x 100	C	0.94	Leaching	***	4.9	GW x 100	***	8	GW x 100	***	4.9	G	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS

Notes:
mg/kg = milligram per kilogram
Reference = Reference for the RRS
ND = Substance not detected
(a) Surface soil is defined under HSRA as 0 to 2 feet below ground surface
(b) Subsurface soil is defined under HSRA as any point above the upper most groundwater zone; used here to mean other than surface soil.
*** Substance concentrations complies with a lower RRS
C = Substance concentration meets the respective RRS
E = Substance concentration exceeds the respective RRS
GW x 100 = HSRA ground water criteria standard times a factor of 100
Appendix I = HSRA Rules Appendix I: Regulated Substances and Soil Concentrations that Trigger Notification
G = Lower value of direct soil contact and non-residential soil-to-ground water leaching values
Leaching = RRS based on soil-to-groundwater transport equation from the Soil Screening Guidance background document (USEPA, 1996).
(c) 1.8 mg/kg is the EPD-approved leaching criteria. Soil concentrations exceeding the direct contact value of 1.3 mg/kg are all located beneath the existing building floor slab, so direct contact is not possible.
Bold Substance concentrations exceeds Types 1, 2, 3 and 4 RRS

Prepared by: RPR 12/03/10
Checked by: RNQ 12/03/10

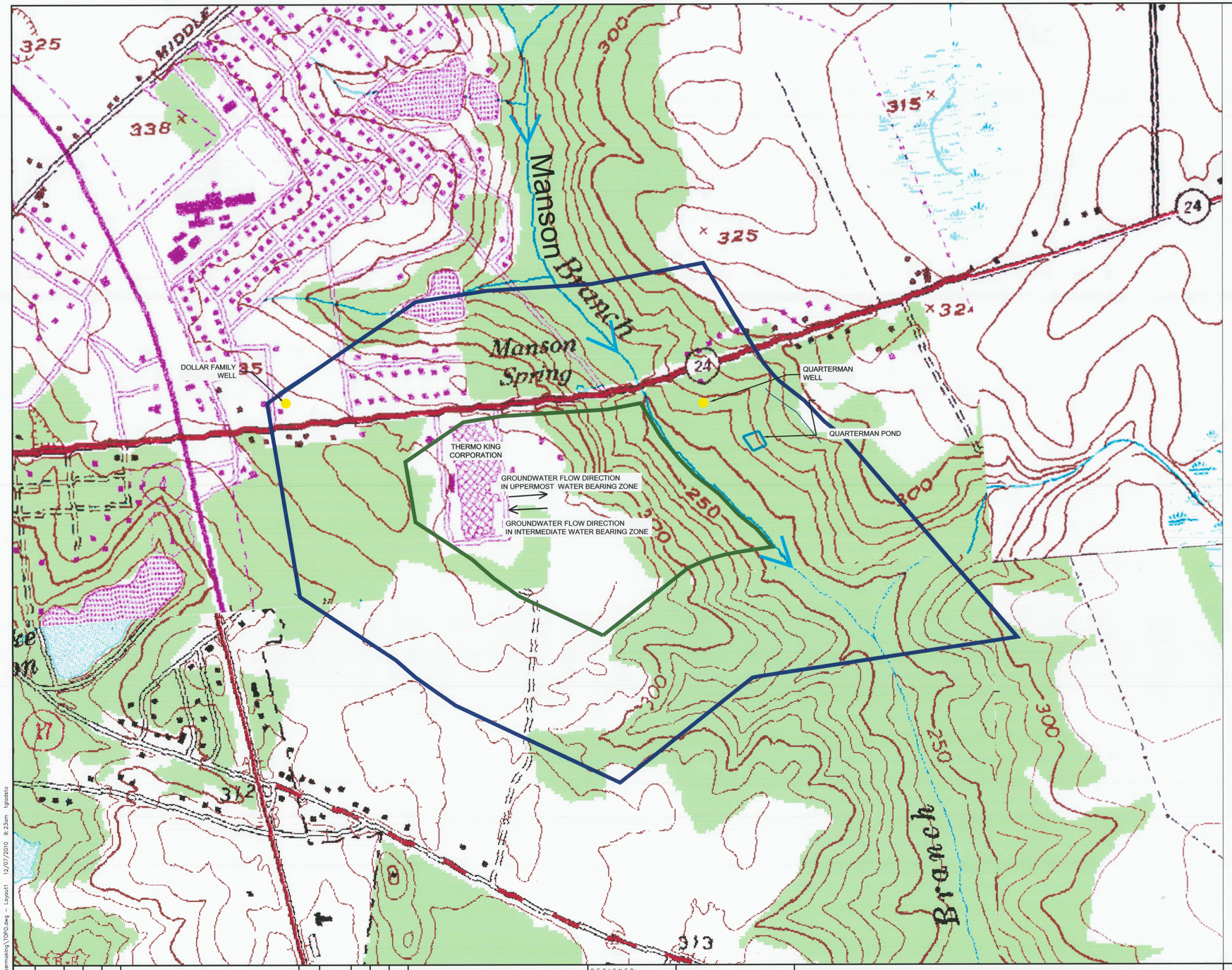
TABLE VRP-3: RISK REDUCTION STANDARDS PER GROUND WATER TYPES 1 through 4 and CLEANUP CRITERIA

HSRA-Regulated Substance	2010 Maximum Detected Concentrations (mg/L)	Location	Historical Maximum Detected Concentrations (mg/L)	Location	Risk Reduction Standards (RRS) (mg/L) Types 1 and 3 RRS	Types 1 and 3 Status	Type 2 RRS	Type 2 Status	Type 4 RRS	Type 4 Status	CLEANUP CRITERIA
Volatile Organic Compounds - SW8260B											
1,1,1-Trichloroethane	ND		83	GW-AOC1-1	0.2	E	2.7	E	25.1	**E**	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
1,1-Dichloroethene	0.1	MW-19 (6/2/2010)	2	GW-AOC1-1	0.007	E	0.1	E	0.95	**E**	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
cis-1,2-Dichloroethene	0.82	MW-25 (6/24/2010)	0.53	MW-14 (6/13/2003)	0.07	E	0.16	E	1.0	C	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Chloroform	0.0049	MW-1 (6/1/2010)	0.0077	MW-3 (10/12/2004)	0.08	C	0.0020	***	0.0066	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Toluene	ND		0.029	MW-14 (4/21/2003)	1.0	C	0.88	***	6.4	***	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Trichloroethene	5.8	MW-19 (6/3/2010)	20	MW-19 (5/5/2004)	0.005	E	0.021	E	0.07	**E**	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS
Vinyl chloride	0.015	MW-20 (6/1/2010)	ND		0.002	E	0.0011	E	0.004	**E**	SITE-SPECIFIC TYPE 4 RRS WITH VRP-ALLOWED CONTROLS

Notes:
mg/l = milligram per liter
Reference = Reference for the RRS
*** Substance concentrations complies with a lower RRS
C = Substance concentration meets the respective RRS
E = Substance concentration exceeds the respective RRS
ND = Substance Not Detected
Bold Substance concentrations exceeds Types 1/3, 2, and 4 RRS

Prepared by: RPR 12/03/10
Checked by: RNQ 12/03/10

APPENDIX C FIGURES



Groundwater/Surface Water Feature Identification	Location	Usage
Dollar Family Water Well	1117 Highway 24 East, Louisville, GA Northwest of Thermo King building	Filling of residential swimming pool. Household water supply is from City of Louisville
Quarterrman Water Well	1786 Highway 24 East, Louisville, GA East of Thermo King building	Filling of private fishing pond. Household water supply is from City of Louisville
Manson Branch	Highway 24 East, Louisville East of Thermo King building Surface water stream flows from north to south and eventually discharges to Ogeechee River	Rural stream with swamp Some recreational fishing
Quarterman Private Pond	1786 Highway 24 East, Louisville, GA East of Thermo King building	Family's private recreational fishing pond. Approximately 0.5 acre in size.
Manson Spring	Near the northeast intersection of Highway 24 East and McBride Street, Louisville, GA	Naturally occurring spring, no known usage

United States Geological Survey 7.5-Minute Topographic Quadrangles:
Louisville, GA, 1948, Photorevised 1980
Louisville South, GA 1973, Photorevised 1981
Old Town, GA 1973
Kellys Pond, GA 1950

Source of Groundwater and Surface Water Data:
April 2000 Thermo King Corporation and LAW Engineering Water Well Survey (Revised Compliance Status Report, March 21, 2007, Appendix D).
2009 Google Aerial Photography

LEGEND

- DELINEATED EXTENT OF VOCs IN GROUNDWATER
- 1000 FEET DOWNGRADIENT OF DELINEATED EXTENT OF VOCs IN GROUNDWATER
- WATER SUPPLY WELLS

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REV	DATE	BY	SUB	APP	DESCRIPTION	REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED R. QUINN
DRAWN T. GLADSTONE
CHECKED J. QUINN
IN CHARGE D. ALCOTT
DATE 8/17/2010

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LOUISVILLE, GEORGIA

MACTEC Engineering and Consulting, Inc.
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KENNESAW, GEORGIA 30144 (770) 421-3400

GROUNDWATER AND SURFACE WATER USAGE MAP

SCALE AS SHOWN
CONTRACT 6122-09-0322
DWG. NO. VRP-1
REV
PAGE NO

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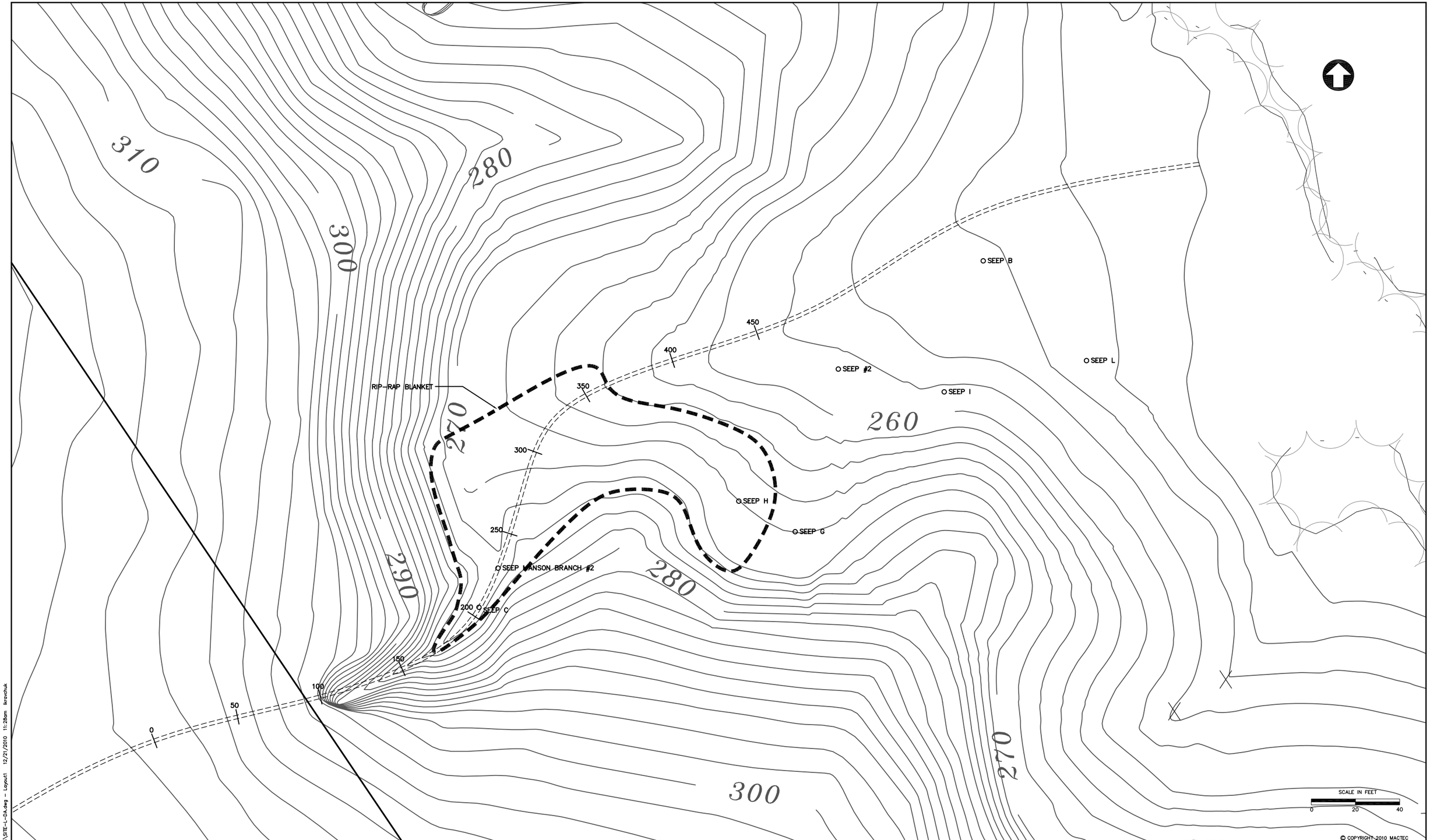

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DESIGNED G. WRENN
DRAWN T. GLADSTONE
CHECKED D. ALCOTT
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DATE 12/10/03

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LATERAL EXTENT OF PROPOSED RIP RAP BLANKET

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CONTRACT: 6122-09-0322
DWG. NO.: VRP-2
REV: 1
PAGE NO:

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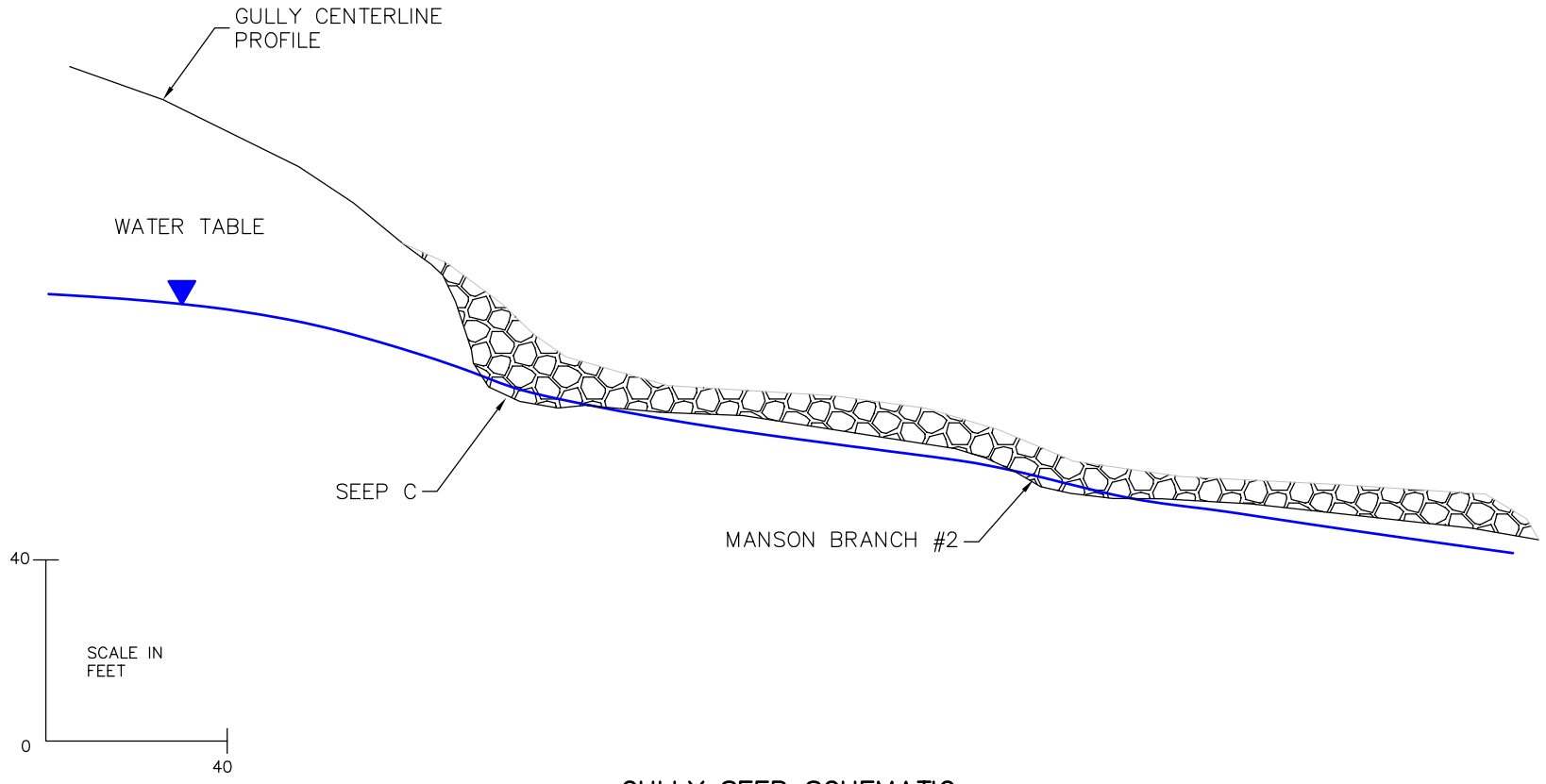

GULLY SEEP SCHEMATIC

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PROFILE VIEW OF PROPOSED
RIP RAP BLANKET

JOB NO. 6122–09–0322 FIGURE VRP–3

PREPARED BY/DATE

CHECKED BY/DATE

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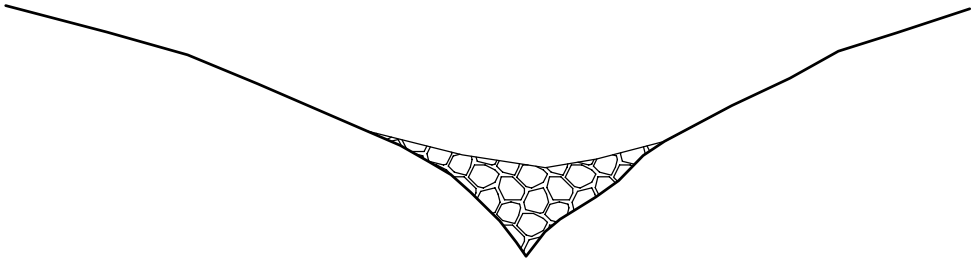
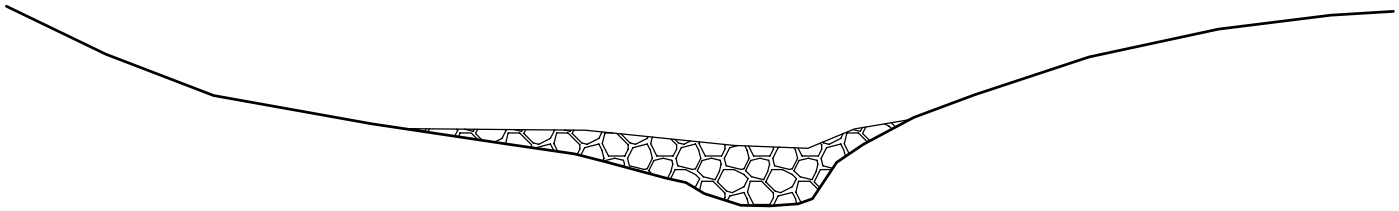
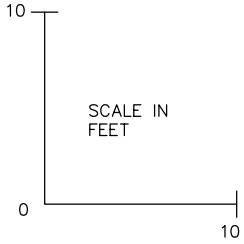


SEEP C
CROSS-SECTION



MANSON BRANCH #2
CROSS-SECTION



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CROSS-SECTIONAL VIEW OF PROPOSED
RIP RAP BLANKET

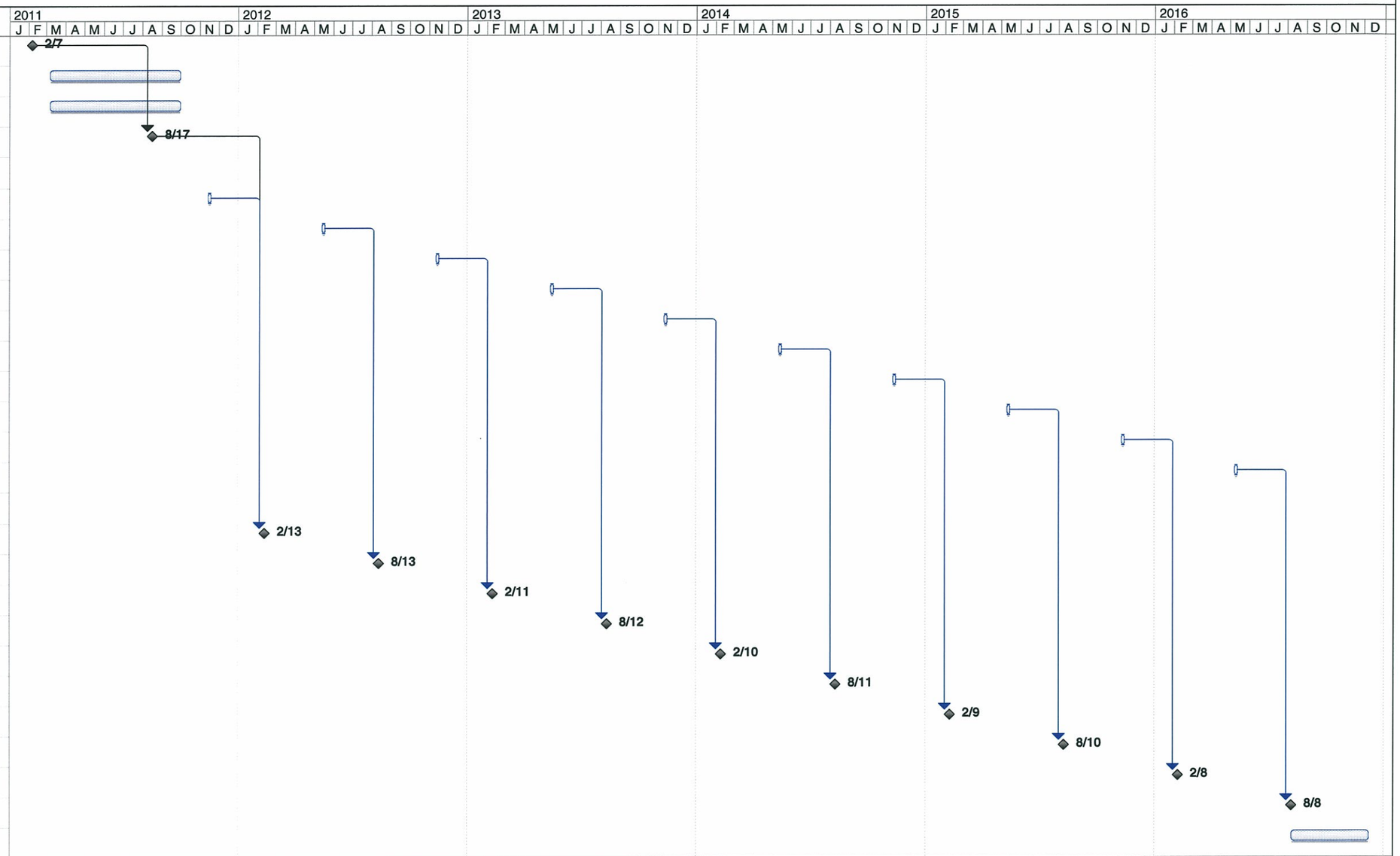
JOB NO. 6122-09-0322 FIGURE VRP-4

PREPARED BY/DATE

CHECKED BY/DATE

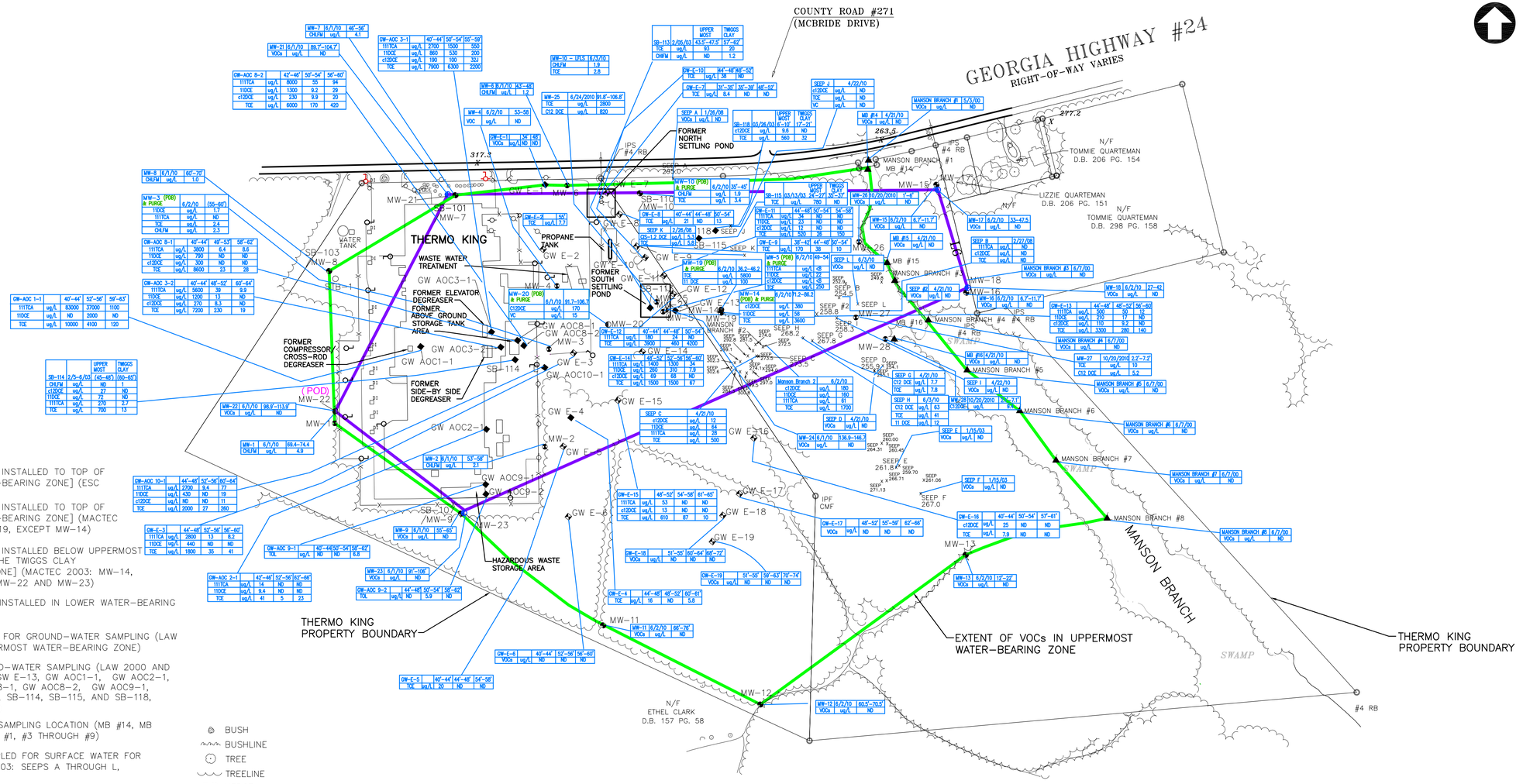
FIGURE VRP-5 - SCHEDULE FOR IMPLEMENTATION OF VOLUNTARY REMEDIATON PLAN

ID	Task Name
1	EPD approves VRP Application and Remediation Plan
2	Design & Installation of Seep Control Measures
3	Installation of Restrictive Covenant Measures
4	Status Report #1 on Implementation of Remediation Plan
5	**Semi-Annual Sampling Event**
6	Semi-Annual Sampling Event 1
7	Semi-Annual Sampling Event 2
8	Semi-Annual Sampling Event 3
9	Semi-Annual Sampling Event 4
10	Semi-Annual Sampling Event 5
11	Semi-Annual Sampling Event 6
12	Semi-Annual Sampling Event 7
13	Semi-Annual Sampling Event 8
14	Semi-Annual Sampling Event 9
15	Semi-Annual Sampling Event 10
16	**Submit Semi-Annual Status Report**
17	Submit Semi-Annual Status Report 2
18	Submit Semi-Annual Status Report 3
19	Submit Semi-Annual Status Report 4
20	Submit Semi-Annual Status Report 5
21	Submit Semi-Annual Status Report 6
22	Submit Semi-Annual Status Report 7
23	Submit Semi-Annual Status Report 8
24	Submit Semi-Annual Status Report 9
25	Submit Semi-Annual Status Report 10
26	Submit Semi-Annual Status Report 11
27	Preparation and Submittal of Post-Remediation CSR



Project: ThermoKing Voluntary Remediation Schedule
Date: 12/20/10

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External MileTask



LEGEND

- MW-1 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
- MW-7 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
- MW-14 — GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22 AND MW-23)
- MW-24 — GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER-BEARING ZONE (MACTEC 2004: MW-24)
- GW-E-2 — DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
- GW-E-1 — SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB #14, MB #15 AND MB #16, MANSON BRANCH #1, #3 THROUGH #9)
- X SEEP A 299.0 — WATER SEEP WITH ELEVATION, SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: SEEPS A THROUGH L, MANSON BRANCH #2, SEEP #2)

ND	NOT DETECTED
VOC	VOLATILE ORGANIC COMPOUNDS
TCE	TRICHLOROETHENE
111TCA	I,I,I-TRICHLOROETHANE
IIDCE	I,I-DICHLOROETHENE
c12DCE	CIS-1,2-DICHLOROETHENE
t12DCE	TRANS-1,2-DICHLOROETHENE
TOL	TOLUENE
CHLFM	CHLOROFORM
VC	VINYL CHLORIDE
ug/L	MICROGRAMS PER LITER
40'-44'	SAMPLE DEPTH IN FEET BELOW GROUND SURFACE
27	CONSTITUENT CONCENTRATION
(POD)	POINT OF DEMONSTRATION WELL
(PDB)	PASSIVE DIFFUSION BAG

- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- WATER
- FENCE
- DI — DROP INLET
- X SEEP 299.5 — WATER SEEP WITH ELEVATION
- PROPERTY BOUNDARY
- EXTENT OF VOCs IN UPPERMOST WATER-BEARING ZONE
- EXTENT OF VOCs IN INTERMEDIATE WATER-BEARING ZONE

VOCS IN GROUND WATER ARE DELINEATED PER THE VRP DELINEATION CRITERIA 12-8-108(1)(A) WHICH IS SITE BACKGROUND CONCENTRATIONS. SITE BACKGROUND CONCENTRATIONS FOR VOCS ARE DEFINED AS THE NON-DETECTION OF CONSTITUENTS ABOVE LABORATORY QUANTITATION LIMITS.

NOTE: MOST CURRENT ANALYTICAL RESULTS ARE SHOWN IN (ug/L) MICROGRAMS PER LITER.

SOURCE: HOFFMAN & COMPANY INC. AERIAL PHOTOGRAPH FEBRUARY 2002 AND TOPOGRAPHIC AND BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC. JULY 2002, 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000, 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING SEPTEMBER 2003 AND DECEMBER 2004. FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

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DESIGNED D HUNT
DRAWN T. GLADSTONE
CHECKED R. QUINN
IN CHARGE D. ALCOTT
DATE 11/14/2010

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DISTRIBUTION AND EXTENT OF DETECTED CONSTITUENTS IN GROUND WATER

SCALE AS SHOWN
CONTRACT 6122-09-0322
DWG. NO. VRP-6
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PAGE NO.

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APPENDIX D:

RESULTS OF THE MODELING OF GROUNDWATER IN THE UPPERMOST WATER-BEARING ZONE AND POTENTIAL IMPACTS TO MANSON BRANCH

APPENDIX D
RESULTS OF THE MODELING OF GROUNDWATER IN THE UPPERMOST WATER-BEARING ZONE AND POTENTIAL IMPACTS TO MANSON BRANCH

In our September 23 meeting, EPD expressed concern regarding: (1) potential future impacts to Manson Branch related to the presence of contaminants in seep waters emanating from the Uppermost water-bearing zone, and (2) to the lack of groundwater monitoring points between the seeps and Manson Branch. To address these concerns, Thermo King has developed a "model" of flow from the seeps and its subsequent movement toward Manson Branch. Three shallow monitoring wells (MW-26, MW-27, and MW-28) have been installed near the west bank of Manson Branch, between the seeps and Manson Branch, to monitor groundwater impacts prior to discharge into Manson Branch.

Supplemental study of the Uppermost water-bearing zone and seeps in the area between MW-19 and Manson Branch show that the Uppermost zone daylights at the base of the hill-side slope, approximately 150 to 200 feet west of Manson Branch, and that the waters from the seeps infiltrate into the relatively thin silty and sandy colluvial/alluvial deposits (the alluvial system) resting on top of the clay formation that separates the Uppermost and Intermediate water-bearing zones. The seep waters move eastward at low gradient to discharge into Manson Branch.

Factors considered in "modeling" the flow of impacted seep waters toward Manson Branch and evaluating the potential subsequent impact to Manson Branch include:

- The past, current, and potential future concentration of constituents in the seeps
- The flow path from the seeps toward Manson Branch
- Current impact to alluvial system groundwater just upgradient of Manson Branch
- Discharge of contaminants into Manson Branch

<u>Past, Current, and Potential Future Concentrations of Constituents in the Seeps</u>

The source of constituents detected in the seeps is groundwater from the Uppermost water-bearing zone. Long-term monitoring (2000 forward) of constituents in the Uppermost zone, primarily TCE, has been conducted in three wells: MW-3, located near downgradient (east) of the central portion of the manufacturing building where solvent-based degreasers were located; MW-5, located in the area of the former south settling pond; and MW-19, located downgradient (east) of the former south settling pond. Figure D-1 illustrates the general decline in detected constituents occurring in this zone. This pattern is

consistent with expected contaminant behavior in a migrating plume as time passes following discontinuation of the release source. Based on this observed trend, it is anticipated that constituent concentrations in the Uppermost zone, the source of constituents in the seeps, will likely continue to decrease over time; Thermo King is not aware of any previously unknown or undetected site- or operational-related activities that would otherwise impact the plume in a manner differing from that observed over the past 10 years.

Figure D-2 illustrates historic TCE concentrations in Seeps C and Manson Branch #2, both located in the erosional gully down gradient from the MW-19 area. The concentrations of constituents in samples collected from these seeps are somewhat more variable than those observed in analyses of the groundwater samples from MW-19 and the other Uppermost zone wells. This variability likely reflects seep water responses to several influences not applicable to upgradient groundwater samples, like atmospheric conditions of humidity, temperature, wind, precipitation, etc., and to the contact of seep samples with organic matter in surficial soils in the seep areas. However, as illustrated on Figure D-3, the patterns of TCE concentrations in well MW-19 and that in Seeps C and Manson Branch #2 are similar in that: 1) both include an apparent "peak" in concentrations observed in 2004, first in MW-19 followed later in the year in the seeps, and 2) overall concentrations of TCE have decreased since 2004. As TCE concentrations continue to decrease in groundwater at MW-19, concentration decreases in the seeps should follow.

The Flow Path from the Seeps to Manson Branch

The area between the seeps and Manson Branch, a distance of about 300 to 400 feet, is characterized by slightly sloping, slightly undulating topography that becomes more marsh-like approaching Manson Branch. The ground surface varies from relatively firm in higher areas to unstable in low-lying areas with thick decaying vegetation. Vegetation is moderate to heavy, consisting primarily of grasses, briers, hedges, saplings and small trees. The flow of water away from the seeps toward Manson Branch occurs as a "mixture" of intermittent/discontinuous paths of surface flow and as subsurface flow in the colluvial/alluvial soils. No continuous surface pathways of flow from seeps to Manson Branch have been observed. Near surface groundwater in the colluvial/alluvial deposits appears to discharge directly into Manson Branch.

Current Impact to Alluvial System Groundwater

Monitoring wells MW-26, MW-27, and MW-28 were installed in the alluvial soils/underlying clays at locations just upgradient of Manson Branch (see attached Figure 3.0 and well logs in Appendix F of this Application). The thickness of the alluvial soils overlying clays at these well locations is about 2 to 3 feet. Wells MW-27 and MW-28 are located east of the gully and seeps C and Manson Branch #2. Well MW-26 is some 300 feet north of the gully, north of the area where constituents at concentrations of potential concern have been detected in seep water. Analysis of a groundwater sample collected from well MW-27 detected the presence of TCE at 10 µg/L. Cis-1,2-DCE was reported in the groundwater samples from wells MW-27 at 5.2 µg/L and MW-28 at 9.4 µg/L. These samples represent the quality of seep-impacted groundwater just prior to its discharge into Manson Branch.

Discharge of Contaminants into Manson Branch

Figure D-4 in this Appendix presents a calculation of the discharge rate of groundwater from well MW-27 into Manson Branch, a distance of approximately 125 feet. It was assumed that contamination of groundwater in the alluvium occurs along a 200-foot wide front (the distance between MW-27 and MW-28 is only 130 to 140 feet.) The calculation for gradient used the measured difference in groundwater elevation in well MW-27 with the nearby surface elevation of Manson Branch (2.28 feet). The calculated groundwater discharge rate along the "discharge front" to Manson Branch is approximately 0.0011 cubic feet per second (cfs).

The calculations then show the quantative impact to Manson Branch associated with discharge of groundwater containing constituents at the concentrations detected in the October 2010 sampling (TCE at 10 ug/L, cis-1,2-DCE at 5.2 ug/L, and vinyl chloride at 1 ug/L). After mixing, considering the 7Q10 of 0.16 cfs for Manson Branch, the constituent concentrations calculated to be present in Manson Branch are shown to be orders of magnitude below the individual constituent ISWQC (e.g., 0.07 µg/L vs. 30 µg/L for TCE).

Finally, Figure D-4 shows the hypothetical concentrations of the constituents of concern that would be required to be present in groundwater at wells MW-27/MW-28, then flowing into Manson Branch, to result in constituent concentrations in Manson Branch that approached the ISWQC. These concentrations (e.g. 4380 µg/L for TCE) exceed those concentrations currently detected in the seeps or anticipated in the

future, much less those concentrations that might be expected in alluvial groundwater approaching Manson Branch (at MW-27/MW-28).

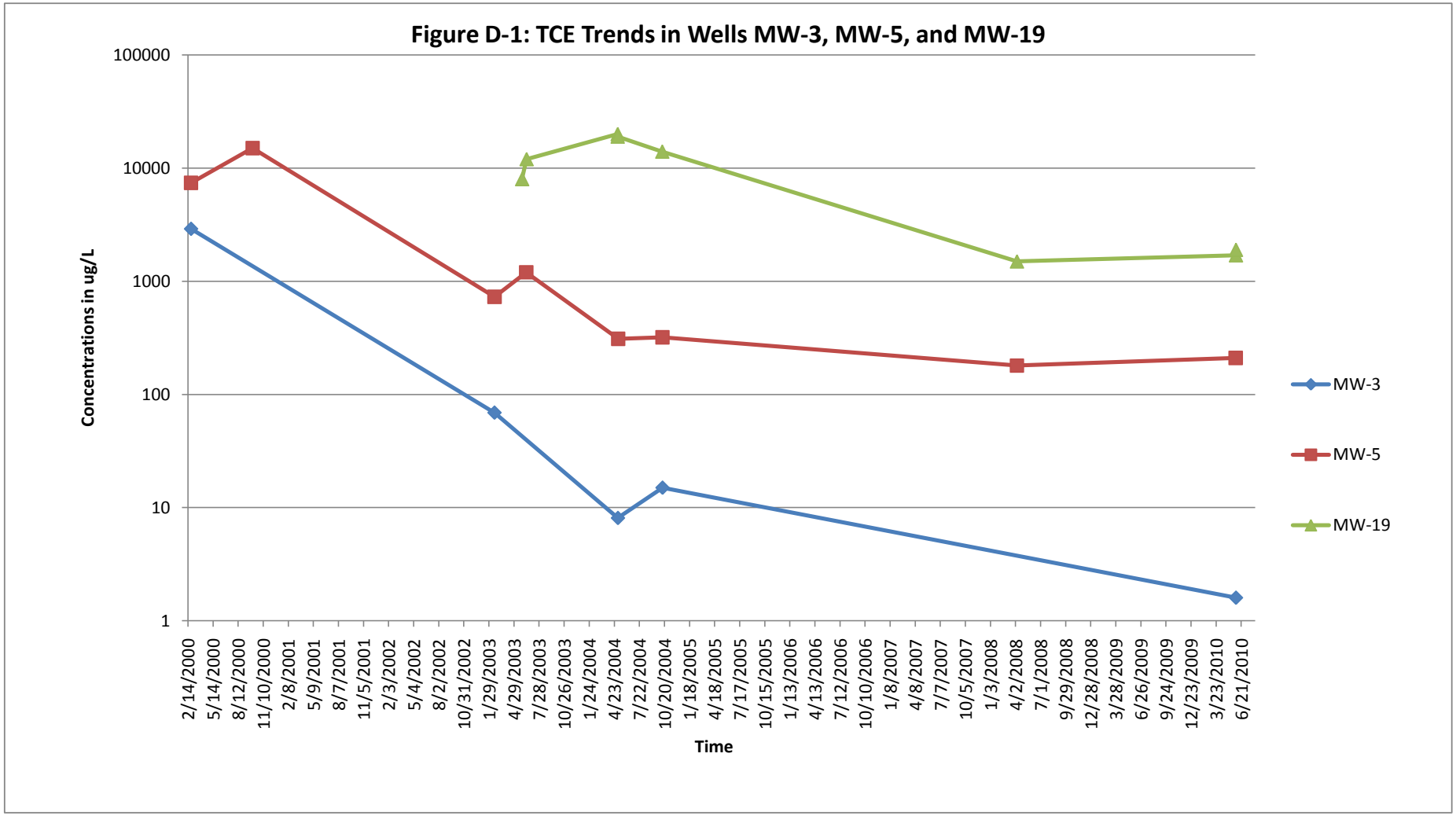
In summary, it appears very unlikely that constituents in the Uppermost zone groundwater, water emanating from the seeps, or in groundwater in the alluvial deposits approaching Manson Branch will impact Manson Branch at concentrations approaching ISWQC. The Proposed Remediation Plan presents a plan for monitoring groundwater and surface water in wells, seeps, and in Manson Branch directly to confirm Manson Branch is not and will not be impacted above ISWQC.

LIST OF FIGURES

Figure D-1: TCE Trends in Wells MW-3, MW-5, and MW-19
Figure D-2: TCE Trends in Seep Manson Branch #2 and Seep C
Figure D-3: TCE Trends in Well MW-19, Seep Manson Branch #2, and Seep C
Figure D-4: Calculation Of Groundwater Discharge Rate at Well MW-27 into Manson Branch

APPENDIX D FIGURES

Figure D-1: TCE Trends in Wells MW-3, MW-5, and MW-19



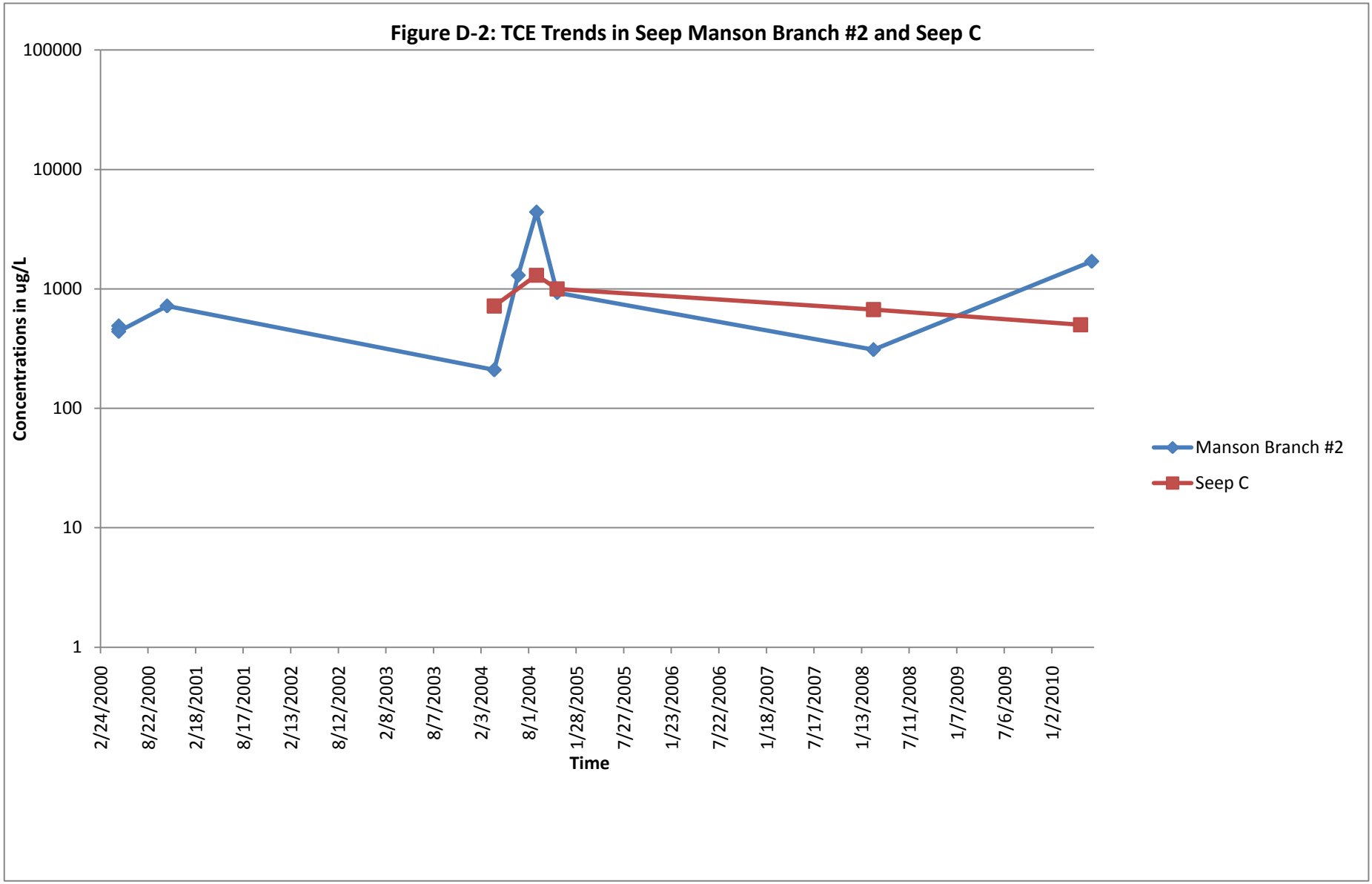


Figure D-2: TCE Trends in Seep Manson Branch #2 and Seep C
100000
10000
1000
100
10
1
Concentrations in ug/L
2/24/2000
8/22/2000
2/18/2001
8/17/2001
2/13/2002
8/12/2002
2/8/2003
8/7/2003
2/3/2004
8/1/2004
1/28/2005
7/27/2005
1/23/2006
7/22/2006
1/18/2007
7/17/2007
1/13/2008
7/11/2008
1/7/2009
7/6/2009
1/2/2010
Time
Manson Branch #2
Seep C

Figure D-3: TCE Trends in Well MW-19, Seep Manson Branch #2, and Seep C

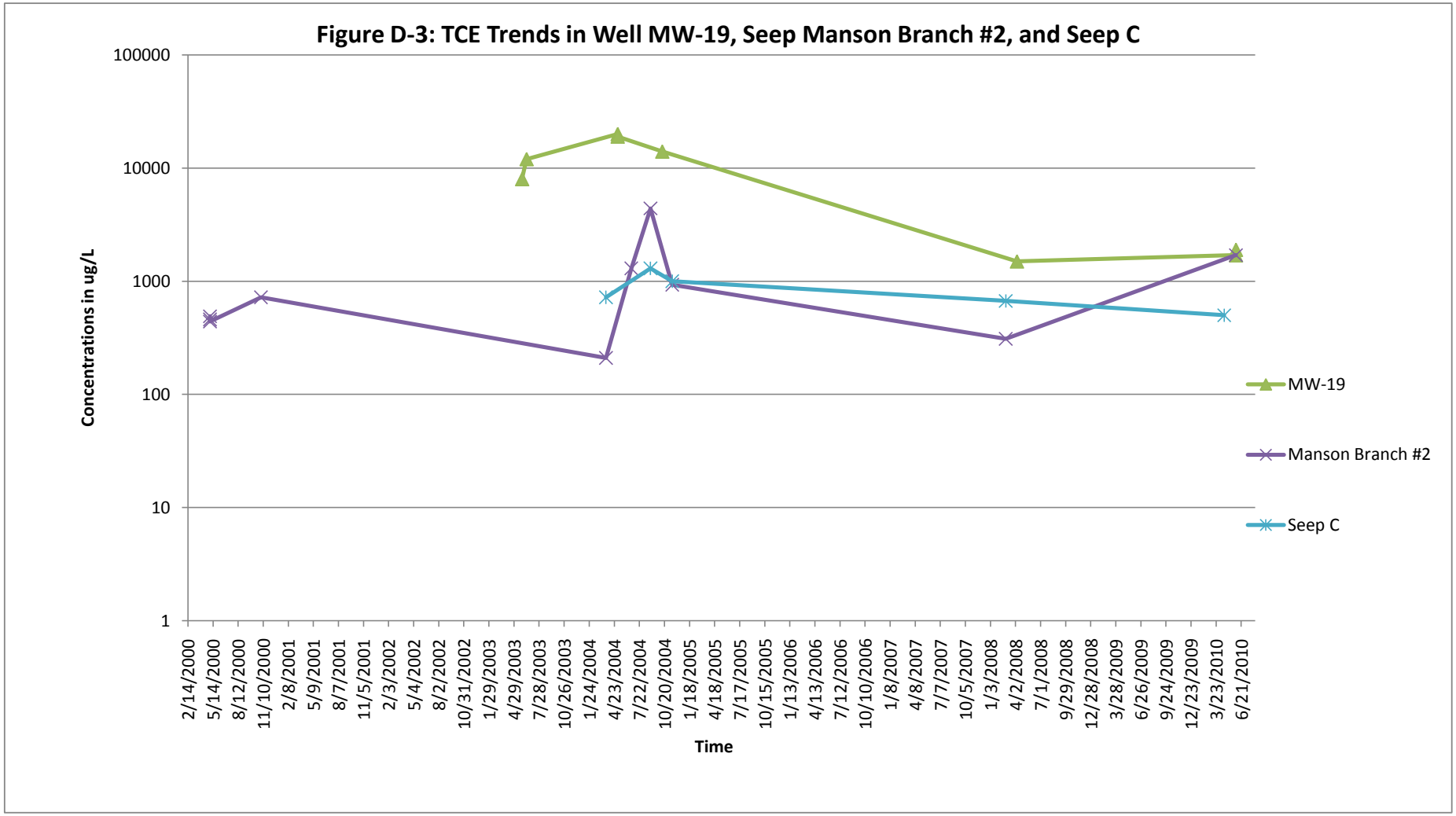


FIGURE D-4: CALCULATION OF GROUNDWATER DISCHARGE RATE AT WELL MW-27 INTO MANSON BRANCH

Input parameters for calculation of the GW discharge rate into the creek

K (ft/s)	i	L (ft)	a (ft)	b (ft)	H (ft)	A (ft^2)	v (ft/s)	Q_1 (cfs)
0.00002	0.01824	75	10.00	0.50	10.01	750.94	3.648E-07	0.000273942
0.00002	0.01824	100	10.00	0.50	10.01	1001.25	3.648E-07	0.000365256
0.00002	0.01824	200	15.00	0.50	15.01	3001.67	3.648E-07	0.001095008

This is a conservative value: Length of the impact is 200 ft, hydraulic conductivity is high, cross-sectional area is large

Hydraulic gradient (i) is measured from well MW-27 to closest approach of the stream to well MW-27 and using the stream elevation at the staff gauge ((250.66-248.38)/125)=0.01824 ft/ft
Hydraulic conductivity is that of the shallow zone well MW-1 which it the highest of three tested wells
(K = 0.0012 ft/min = 0.00002 ft/s)

K: Hydraulic conductivity (in ft/sec)
i: Hydraulic gradient
L: Length of stream segment receiving contaminated GW flow (in feet)
H: Equivalent side-length of rectangle receiving GW flow (SQRT (a^2+b^2); in feet; see schematic)
A: Cross-sectional area receiving GW flow (A = L x H; in ft^2)

v: Groundwater (Darcy's) velocity (v=K x i; in ft/sec)

Q_1: Flow rate of impacted GW entering the stream segment (in ft^3/sec)
a: half-width of the creek water surface
b: depth of water in the creek

Another approach is to use aquifer saturated thickness adjacent to the creek, instead of H shown below

Current concentrations at MW-27 vs. in-stream water quality standard

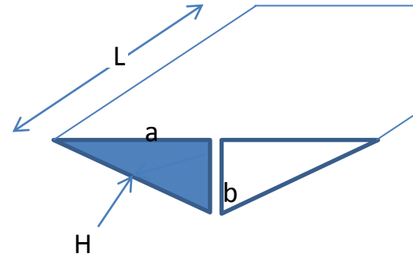
COC	C_1 (ug/L)	Q_1 (cfs)	$Q_2 = Q_3$ = 7Q10 (cfs)	**C_3 (ug/L)**	In-stream Standard (ug/L)
TCE	10	0.00109501	0.16	**0.06843813**	30
DCE*	5.2	0.00109501	0.16	**0.03558783**	10000**
VC	1	0.00109501	0.16	**0.00684381**	2.4

half-detection limit used for VC

*** Total DCE (1,2-Trans-DCE + 1,2-Cis-DCE; Note: no trans is detected)**
** Standard is for 1,2-Trans-Dichloroethylene (no standard for 1,2-Cis-DCE)
The 7Q10 for Manson Branch is estimated to be 0.16 ft3/s and was calculated based on a drainage area of 4.1 sq miles and USGS-measured flow volumes extrapolated from 4 stations on the Upper Ogeechee River in the area.

Q_1: Flow rate of impacted GW entering the stream segment (in ft^3/sec)
Q_2: 7Q10 of the stream immediately upgradient of the Site (in ft^3/sec)
Q_3: Total 7Q10 flow in the stream = Q2 since Q2>>Q1
C_1: dissolved concentration of COC in groundwater (in ug/L)
C_3: resulting concentration of COC in the stream after mixing (in ug/L)
C_2: upgradient concentration in the stream; assumed 0

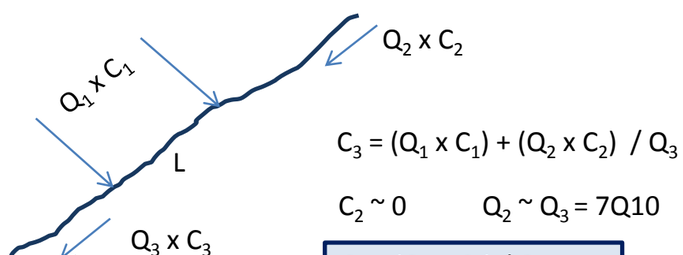
7Q10 is 0.16 cfs



Maximum allowed concentrations, in ppb, at MW-27 to meet in-stream standard

COC	C_1 (ug/L)	Q_1 (cfs)	$Q_2 = Q_3$ = 7Q10 (cfs)	C_3 (ug/L)	In-stream Standard (ug/L)
TCE	**4380**	0.00109501	0.16	29.9758988	30
DCE*	**1,461,000**	0.00109501	0.16	9998.81006	10000**
VC	**350**	0.00109501	0.16	2.39533438	2.4

* Total DCE (1,2-Trans-DCE + 1,2-Cis-DCE)
** Standard is for 1,2-Trans-Dichloroethylene; there is no standard for 1,2-Cis-DCE
All concentrations in ug/L or ppb



$C_3 = (Q_1 \times C_1) + (Q_2 \times C_2) \ / \ Q_3$

$C_2 \sim 0$ $\quad Q_2 \sim Q_3 = 7Q10$

$C_3 = (Q_1 \times C_1) / Q_2$

APPENDIX E:

RESULTS OF THE GROUNDWATER FATE AND TRANSPORT MODELING OF THE INTERMEDIATE WATER-BEARING ZONE

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APPENDIX E
RESULTS OF THE GROUNDWATER FATE AND TRANSPORT MODELING OF THE INTERMEDIATE WATER-BEARING ZONE

E1.0 INTRODUCTION

The future fate and transport of the constituents of concern (COCs) in the Intermediate aquifer underlying the Thermo King Corporation site in Louisville, Georgia (the Site) was modeled using software program BIOCHLOR. This program, approved by the U.S. Environmental Protection Agency (U.S. EPA) is an analytical model that simulates remediation by natural attenuation of dissolved solvents in groundwater (Aziz et al., 2000; Aziz, Newel and Gonzales, 2002). The software, programmed in the Microsoft© Excel spreadsheet environment and based on the Domenico analytical solute transport model (Domenico, 1987), has the ability to simulate one-dimensional advection, 3-dimensional dispersion, linear adsorption, and biotransformation via reductive dechlorination, the dominant biotransformation process at most chlorinated solvent sites (Sun and Clement, 1999; Sun et al., 1999). The reductive dechlorination of the parent solvent to daughter product is assumed to be a first-order process. The daughter products are produced by the first-order degradation of the preceding parent compound. Therefore, the daughter product can simultaneously undergo both production and degradation in the model area. The COCs at the Site are trichloroethene (TCE) and its degradation products cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC).

The model predicts the maximum extent of dissolved-phase plume migration, which may then be compared to the distance to potential points of exposure (e.g., drinking water wells, groundwater discharge areas, or property boundaries). Analytical groundwater transport models have seen wide application for this purpose for over 15 years now (e.g., ASTM, 1995) and experience has shown such models can produce reliable results when site conditions in the plume area are relatively uniform. As stated by the U.S. EPA, BIOCHLOR allows groundwater remediation managers to identify sites where natural attenuation is most likely to be protective of human health and the environment. It also allows regulators to carry out an independent assessment of treatability studies and remedial investigations that propose the use of natural attenuation (Aziz et al., 2000).

BIOCHLOR is used to simulate the fate and transport of chlorinated solvents at the Site because of the clear evidence of biodegradation, namely a decrease of contaminant concentrations downgradient of the source area and presence of the degradation (daughter) products of TCE, cis-1,2-DCE and VC.

E2.0 MODEL INPUT PARAMETERS

E2.1 GROUNDWATER VELOCITY

The representative seepage velocity of groundwater flow through the interstitial space of the porous media (aquifer matrix) is calculated by multiplying hydraulic conductivity by hydraulic gradient and dividing by effective porosity. As emphasized by the BIOCHLOR manual, it is strongly recommended that actual site data be used for hydraulic conductivity and hydraulic gradient data parameters whereas effective porosity can be estimated based on predominant soil type.

The site-specific hydraulic conductivity is 0.00175 cm/s, the geometric mean of slug test values from the four monitoring wells screened in the Intermediate aquifer, MW-14, MW-25, MW-20 and MW-22: 0.01067 cm/s, 0.00039 cm/s, 0.00106 cm/s, and 0.00214 cm/s, respectively. The geometric mean, rather than the arithmetic mean, is selected as the most probable value knowing that the hydraulic conductivity of an aquifer typically follows a log-normal probability distribution (Kresic, 2006).

The hydraulic gradient is 0.001875, calculated as the change in the hydraulic head between MW-14 and MW-22 in June 2010 divided by the distance between the two wells: (246.96-244.41) / 1360 = 0.001875. Because of the presence of silt and clay, the effective porosity is estimated at 20%, or slightly less than typically used value of 25% for clean sands.

The resulting representative seepage velocity used in the model is 17 ft/year.

E2.2 DISPERSION

Dispersion refers to the process by which a dissolved solvent will be spatially distributed longitudinally (along the direction of groundwater flow), transversely (perpendicular to groundwater flow), and vertically (downward) because of mechanical mixing and chemical diffusion in the aquifer. These processes develop the common plume shape that is the spatial distribution of the dissolved solvent mass in the aquifer. Selection of dispersivity values is a difficult process, given the impracticability of measuring dispersion in the field. However, simple estimation techniques based on the length of the plume are available from a compilation of field test data (Aziz et al., 2000). Based on the 2010 field data, the length of the longest COCs plume (cis-1,2-DCE) is estimated to be approximately 450 feet or some distance downgradient of the last monitoring well with any COC detection (MW-20). The longitudinal

dispersivity (alpha x) of 45 feet is estimated based on the default option in BIOCHLOR which assumes that alpha x is 10% of the estimated plume length. By default, the transverse dispersivity is estimated as alpha y: alpha x = 0.10. To yield a conservative estimate of vertical dispersion, the default value used in BIOCHLOR is set to a very low number (1E-99).

E2.3 ADSORPTION

Adsorption to the soil matrix can reduce the concentration of dissolved contaminants moving through the groundwater. In BIOCHLOR this process is described with the retardation factor (R), the ratio of the groundwater seepage velocity to the rate that organic chemicals migrate in the groundwater. The degree of retardation depends on both aquifer and constituent properties. The model calculates R from the values of distribution (partition) coefficient for the solute (K_d), soil bulk density (ρ_b), effective porosity (n), organic carbon partition coefficients (K_{oc}), and soil fraction organic carbon (f_{oc}) using the following equation:

$$R = 1 + \frac{\rho_b K_d}{n}$$

where $K_d = K_{oc} \times f_{oc}$

Organic carbon partition coefficients (K_{oc}) for TCE, cis-1,2-DCE and VC at 20 ^{o}C are 130 L/kg, 125 L/kg and 29.6 L/kg respectively (BIOCHLOR manual), aquifer matrix (soil) bulk density is estimated to be 1.7 kg/L (default value in BIOCHLOR), and the soil fraction organic carbon is conservatively estimated to be 0.002 (USEPA July 1996). Based on these values, the common R for the three COCs calculated by the model is 3.21.

It should be noted that BIOCHLOR uses one retardation factor for all the constituents, not individual retardation factors for each constituent. It calculates the median retardation factor and uses that value in all calculations. Alternatively, as in our case, the user may select another retardation value that results in a better overall model calibration for all modeled constituents combined. At the Site, the calibrated common value for R (2.07) results in a better model match for VC, the most mobile solute of the three COCs. The sensitivity analysis described in Section 2.7 is conducted to evaluate the effect of the choice of the common retardation factor on the model results.

E2.4 BIOTRANSFORMATION RATE CONSTANTS

The best approach for determining biotransformation rate constants is to calibrate BIOCHLOR to field data for a given sampling event (Aziz et al., 2000; Aziz, Newel and Gonzales, 2002). Rate constants are estimated by changing the rate constant for TCE degradation until the TCE predicted concentrations match the TCE field data. Then, the cis-1,2-DCE rate constant is adjusted until the cis-1,2-DCE predicted concentrations match the field data; the same is repeated for VC. In this way, site-specific rate constants are estimated, and the model is then considered calibrated for the given set of model input parameters including hydraulic conductivity, hydraulic gradient, sorption, and dispersion. Using the site-specific rate constants, predictive simulations can be conducted by increasing the simulation time to estimate future plume behavior (Aziz et al., 2000; Aziz, Newel and Gonzales, 2002).

To speed the calibration process, BIOCHLOR Version 2.2 incorporates the Buschek and Alcantar (1995) rate constant estimation method, which automatically provides an approximate calibration of the model to entered site-specific field data. The Buschek and Alcantar approach uses the following equations which assume 1-D dispersion, steady-state conditions, and biotransformation only in the aqueous phase:

$$C(x) = C_o \exp\left[\left(\frac{x}{2\alpha_x}\right)\left[1-\left(1+\frac{4\lambda\alpha_x}{v_s}\right)^{0.5}\right]\right]$$

$$m = \left(\frac{1}{2\alpha_x}\right)\left[1-\left(1+\frac{4\lambda\alpha_x}{v_s}\right)^{0.5}\right]$$

$$\lambda = \left[\frac{v_s}{4\alpha_x}\right]\left(\left[1-2\alpha_x m\right]^2 - 1\right)$$

where:
λ is the biotransformation rate constant (1/yr)
v_s is the seepage velocity (ft/yr)
α_x is the longitudinal dispersivity (ft)
m is the slope of the Ln concentration vs. distance (1/ft)
x is the distance downgradient (ft)
C_o is the initial concentration (mg/L)
C(x) is the concentration at distance x (mg/L)

Although this method has the potential to overestimate biotransformation rate constants by lumping the effects of lateral and vertical dispersion with biotransformation, it quickly yields a reasonable first approximation of the rate constants. These rate constant estimates can be manually refined subsequently. A minimum of four data points is required for rate constant determination. Table E1 shows the site-specific information used for the model calibration. The four monitoring wells are aligned along the groundwater flowpath, i.e., downgradient from each other. MW-14 is the monitoring well closest to the likely source zone, and MW-22 is the farthest away.

Table E1 Site-specific information used for model calibration; dissolved concentrations of constituents of concern are for the June 2010 sampling event. Where a constituent has been reported of being "less than the detection limit", 1/2 of the constituent's detection limit is used in the model.

Table E1: Site-Specific Information Used For Model Calibration

Well ID	Distance from Source (ft)	Concentration (µg/L)		
		TCE	DCE	VC
MW-14	5	3600	380	<140 (70)
MW-25	150	2800	820	<83 (41.5)
MW-20	350	<5.7 (2.85)	170	15
MW-22	1360	<1.0 (0.5)	<1.0 (0.5)	<1.0 (0.5)

Generally, the more highly chlorinated the compound, the more rapidly it is reduced by reductive dechlorination (Vogel and McCarty, 1985; Vogel and McCarty, 1987). Therefore, it is possible for daughter products to increase in concentration before they decrease (Aziz et al., 2000) as shown with the site-specific example for cis-1,2-DCE.

Table E2 shows the biotransformation rate constants for the three COCs calculated from the field observations together with the final calibrated values. During the model calibration the initial rate constants were slightly adjusted in order to better match the field concentrations observed further downgradient from the source, particularly for VC because it is the most mobile and toxic of the three COCs.

Table E2 Biotransformation rate constants, in 1/yr, calculated from the field data using the Buschek and Alcantar method vs. the final model-calibrated values and their equivalent constituent half-life, in years.

Table E2: Biotransformation Rate Constants

Constituent	Buschek-Alcantar method	Final model-calibrated	Equivalent half-life
TCE	0.135	0.165	4.2
cis-1,2-DCE	0.114	0.087	8.0
VC	0.071	0.073	9.5

The Intermediate aquifer porous media consist primarily of fine to medium sands with spatially varying content of silt and clay. The prevalent geochemical conditions that drive natural biotransformation processes and therefore the estimated rate constants may change spatially as well as the COCs migrate with the groundwater. The same is true with sorption of COCs onto porous media solids. This variability is especially evident in case of TCE at the Site, as seen from Table E1 and discussed in Section 2.7. Namely, it appears that TCE may be degrading faster and/or retarding more than what was simulated between the monitoring wells MW-25 and MW-20.

E2.5 SOURCE DATA

The source of COCs dissolved in groundwater of the Intermediate aquifer underling the Site is assumed to be in close proximity of the monitoring well MW-14 which historically has the highest dissolved concentration of TCE (see Figure E1). The concentrations in excess of 1 to 10% solubility of TCE (which is approximately 1,000 mg/L) are indicative of possible presence of free-phase or residual phase dense non-aqueous phase liquids or DNAPLs (Pankow and Cherry, 1996). The source area in the model is assumed to be a plane 200 feet wide and 25 feet deep (thickness of the Intermediate aquifer at MW-14).

E2.5.1 Source Decay

Free-phase or residual phase DNAPLs, such as TCE, can act as continuing sources of groundwater contamination. The rate at which constituents in the DNAPL or source dissolve into the groundwater ultimately determines the concentration of dissolved contaminants in the plume and the lifetime of a dissolved plume. In BIOCHLOR Version 2.2, the user has the option of modeling a source with constant or decaying concentration over time. Source decay is modeled as a first order process. This approach captures all processes that can lead to depressed aqueous-phase concentrations in the source zone, including decreased dissolution rate from the DNAPL, biotransformation, or any other degradation processes that follow first-order or pseudo first-order rates.

The value of source decay constant is calculated by plotting temporal aqueous concentrations in a source area well on a semi-log plot and determining the slope, as shown on Figure E1 for monitoring well MW-14. As can be seen from the field data over the last seven years, there is a significant decreasing trend in concentrations of TCE indicating a decaying source.

The source decay constant (k_s) is different from the biotransformation constant, λ. The source decay constant describes how the concentration in a source area well decreases as the DNAPL is depleted of the constituent of concern, whereas λ is the biotransformation rate constant for a constituent in the dissolved phase plume downgradient of the source.

To model a decaying source in BIOCHLOR, the Domenico (1987) semi-analytical solution for reactive transport with first order biological decay was modified to incorporate a decaying source (boundary) condition. The revised model assumes that the source decays exponentially via a first order expression [i.e., $C_o \times \exp(-k_s t)$]. The modification of the Domenico solution was accomplished by extending a 1-D solution to the advection-dispersion equation that incorporated a decaying boundary condition to a 3-D solution by analogy (Van Genuchten and Alves, 1982).

The source decay constant (k_s) is first determined by the user using site-specific concentration values for a monitoring well assumed to be representative of (closest to) the source zone, such as MW-14 in this case. However, the user is restricted to k_s values that are less than $1/R*(\lambda+Vs/4\alpha)$ to prevent unstable complex solutions. A safety factor of 20% is also incorporated.

Based on the field data, the source decay constant for TCE is calculated to be between 0.036 and 0.049 (Figure E1). As can be seen, the higher calculated value is obtained when an anomalously low observed concentration at MW-14 in October 2004 is removed from the dataset. The trend line for this case has a significantly higher regression coefficient (better fit). However, because of the model restrictions and the 20% safety factor, the value of 0.049 cannot be used for the given set of input parameters. Therefore, the lower value of 0.036 is selected for all model simulations. This results in an apparent over prediction of the simulated concentration of TCE at MW-14 (see Section 2.6 and Figure E2).

E2.5.2 Initial Source Concentrations

In order to calibrate the model to the field-observed concentrations of COCs in June 2010, the concentrations of three COCs for the source area represented by MW-14 had to be assumed for some time prior to 2010 due to the transient (time-dependent) nature of both the source strength and the fate and transport of dissolved constituents. The initial source concentrations and the model run time were estimated based on the calculated groundwater velocity of 17 ft/year, the attenuating effects of longitudinal dispersion and biodegradation, and the extrapolated trend lines of the TCE concentration at MW-14 (Figure E2).

The trend lines in Figure E1 are derived for the highest recorded concentrations at MW-14 for any of the sampling events (note that there were multiple samples and reported concentrations for some sampling events). The model run time of 14 years prior to June 2010 and the initial source concentrations for TCE, cis-1,2-DCE, and VC of 14,000 µg/L (micrograms per liter or ppb), 790 µg/L, and 40 µg/L, respectively, were ultimately selected during model calibration. Interestingly, the initial TCE concentration is approximately the average of the two values shown in Figure E1 for the two different slopes. Possibly because of the high detection limits for VC, none of the historic samples at MW-14 had detectable concentrations of VC. For the estimating purposes as illustrated with the TCE example, the VC concentrations were represented with 1/2 of the reported detection limit.

E2.6 MODEL RESULTS

Figure E2 shows the BIOCHLOR model input screen and Figures E3 through E5 show the model-calculated concentrations of COCs at the monitoring wells screened in the Intermediate aquifer vs. the field-observed concentrations in June 2010. The predicted future fate and transport of COCs at the Site is shown in Figures E6 through E17 for years 2012, 2015, 2020 and 2050 for all three COCs.

It should be noted that in general, because of the source decay constant restrictions (including the added safety factor of 20%), in most cases BIOCHLOR over predicts by default the dissolved concentrations at monitoring wells closest to source zones. At the Thermo King, Louisville site this is evident when comparing the field-data from June 2010 and the model-calculated concentrations of TCE at MW-14 (see also Figure E2): 3,600 µg/L vs approximately 8,000 µg/L. This also means that the model predictions for the future fate and transport of COCs at the Site are likely conservative since the source decay rate is simulated to be lower than that currently observed.

As mentioned earlier, the prevalent geochemical conditions that drive natural biotransformation processes and therefore the estimated rate constants may change spatially as the COCs migrate with the groundwater. This is especially evident in case of TCE, as seen in Figure E3. Namely, it appears that TCE may be degrading faster in a zone between the monitoring wells MW-25 and MW-20 than what is simulated by the model. Currently, BIOCHLOR does not provide for simulation of spatially variable biotransformation rate constants and a decaying source at the same time. Nevertheless, the calibrated model shows a high degree of accuracy in simulating the overall field-observed distribution of all three COCs.

For comparison, on all figures showing the results of the analytical fate and transport model incorporating the documented sequential degradation of TCE, cis-1,2-DCE and VC, there is also a graph of concentration vs. distance from the source if no degradation was taking place for the entire simulated period. As can be seen, even under this unrealistic assumption, the model predicts non-detectable concentrations of all three COCs at the monitoring well MW-22 for the entire simulated future period of 50 years.

E2.7 SENSITIVITY ANALYSIS

Sensitivity analysis of the following model input parameters was performed by increasing and decreasing their baseline values for the calibrated model: hydraulic conductivity, longitudinal dispersivity, retardation factor, and biotransformation/degradation rates expressed as degradation half-life of individual constituents. The results of the analysis are shown in Table E3 for monitoring well MW-20 which is the farthest downgradient well with detectable concentrations of COCs.

Table E3: Model Sensitivity Analysis; Concentrations are Calculated for June 2010 at MW-20

Hydraulic Conductivity (Baseline = 1.75 E-3 cm/s)				
Constituent	Concentrations (µg/L or ppb)			
	1.5x Baseline	Baseline	0.5xBaseline*	Observed
TCE	519.7	74.0	0.18	<5.7
DCE	479.4	73.6	0.20	120
VC	92.7	15.0	0.04	15

* Requires decrease in source decay constant to <0.019

Longitudinal Dispersivity (Baseline = 45 feet)				
Constituent	Concentrations (µg/L or ppb)			
	1.5x Baseline*	Baseline	0.5xBaseline	Observed
TCE	208.2	74.0	3.9	<5.7
DCE	193.9	73.6	4.2	120
VC	37.8	15.0	0.9	15

* Requires decrease in source decay constant to <0.025

Retardation Factor (Baseline = 2.07)				
Constituent	Concentrations (µg/L or ppb)			
	1.5x Baseline*	Baseline	0.5xBaseline	Observed
TCE	5.2	74.0	572.8	<5.7
DCE	3.5	73.6	1,131.7	120
VC	0.5	15.0	294.6	15

* Requires decrease in source decay constant to <0.025

Biotransformation Half-life in Years (Baseline: TCE = 4.2; DCE=8.0; VC=9.5)				
Constituent	Concentrations (µg/L or ppb)			
	1.5x Baseline	Baseline	0.5xBaseline	Observed
TCE	102.2	74.0	28.5	<5.7
DCE	64.9	73.6	69.3	120
VC	9.0	15.0	29.4	15

As discussed in Section 2 Model Input Parameters, the model has several built-in restrictions including one common retardation factor for all COCs, and lower-than-observed source decay rate. Combined, these restrictions contribute to overall conservative model predictions of constituent concentrations when compared to the field-observed data. This is also one of the reasons why certain parameters have varying degrees of sensitivity for individual COCs. For example, the common baseline value of the calibrated retardation factor, R=2.07, is used by default for all three COCs but it is significantly lower than the more reasonable 3.21 initially calculated by the model for TCE. Table E3 shows that using R 1.5x higher than the baseline value results in a very good match between the calculated and the observed TCE concentration at MW-20. Similarly, when using a shorter half-life for TCE the match is significantly

better although the model still over predicts its concentration at MW-20. At the same time, the degradation half-life is less sensitive parameter for both DCE and VC.

Table E3 demonstrates that the baseline (calibrated) model input parameters provide the best overall match for all three COCs for any of the comparative analyses.

E2.8 CONCLUSION

The results of the fate and transport model for the three COCs at the Thermo King Corporation site in Louisville, Georgia show that the predicted concentration of plume constituents TCE, cis-1,2-DCE, and VC in year 2060 (simulated future period of 50 years) at the point of demonstration well (POD) well MW-22 will be lower than the detection limit.

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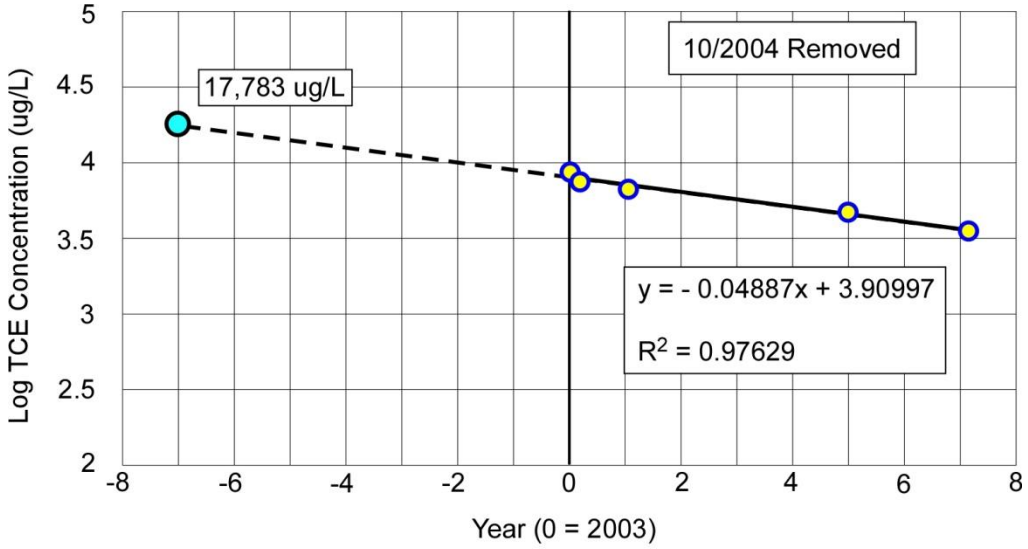
APPENDIX E FIGURES



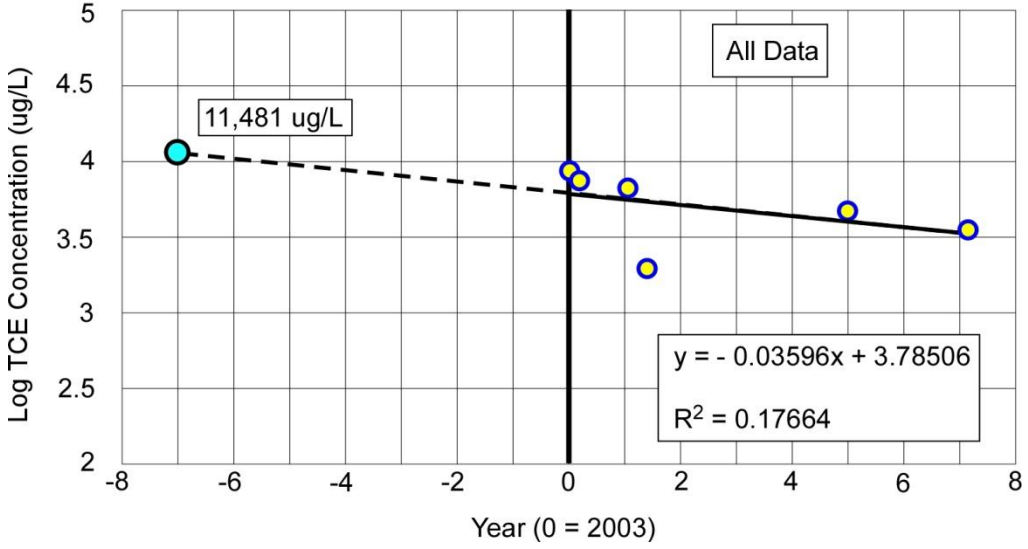


Figure E1 Determination of the Source Decay Constant

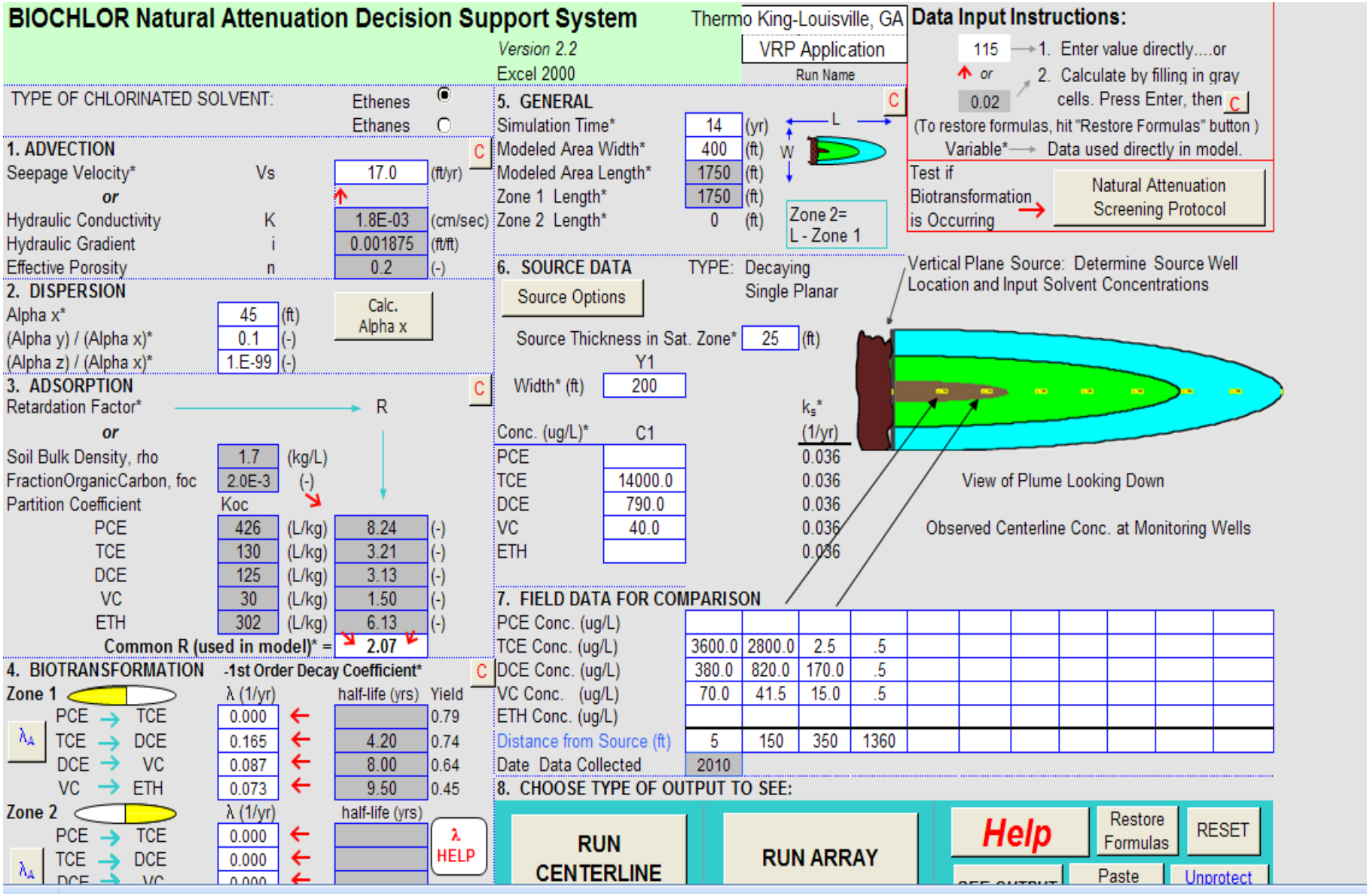
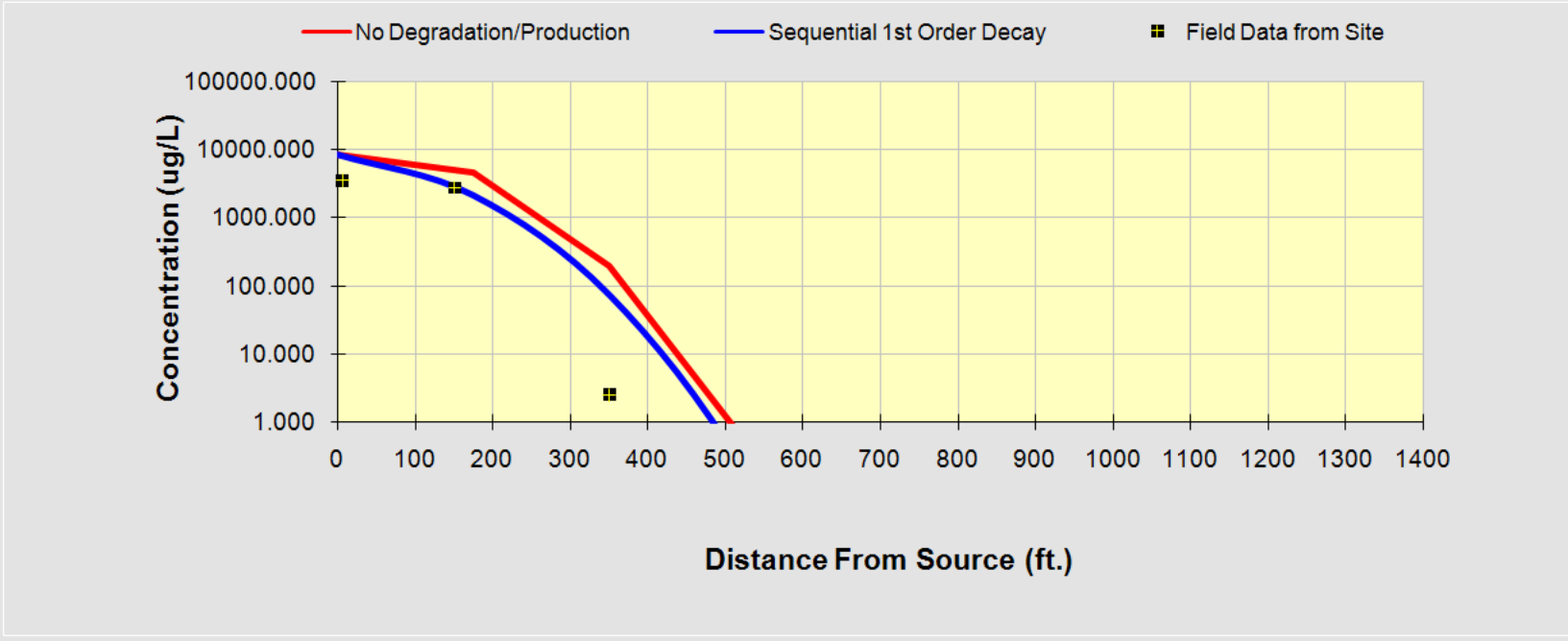


Figure E2 BIOCHLOR Input Screen

Thermo King Louisville GA_Final Draft.xls [Compatibility Mode] - Microsoft Excel

TCE	0	175	350	525	700	875	1050	1225	1400	1575	1750
No Degradation	8457.532	4529.780	195.433	0.524	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	8457.5309	2131.450	74.056	0.185	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	MW-14	MW-25	MW-20	MW-22	Monitoring Well Locations (ft)						
	5	150	350	1360							
Field Data from Site	3600.000	2800.000	2.500	0.500							



See PCE

See TCE

See DCE

See VC

See ETH

Figure E3 TCE, 2010

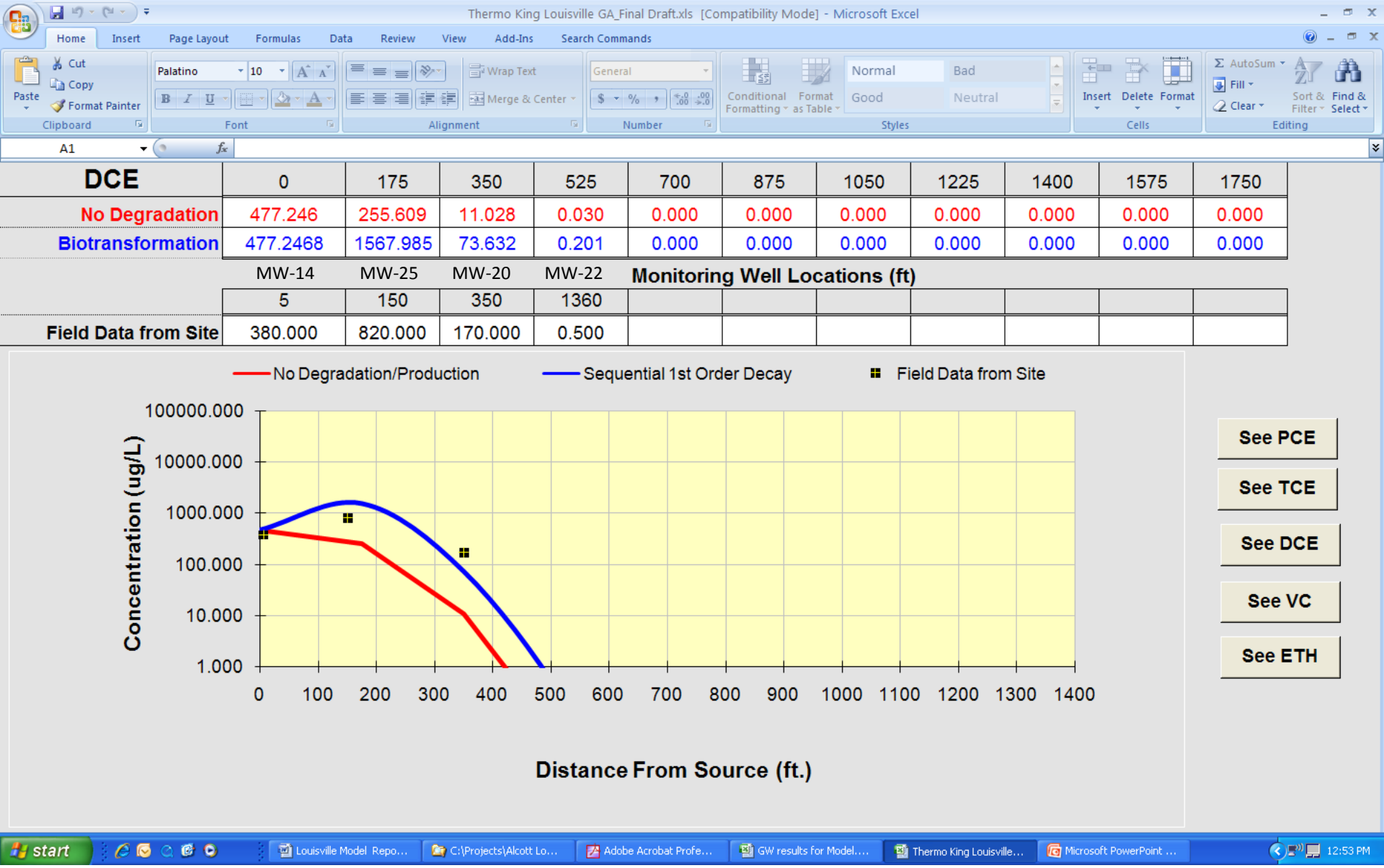


Figure E4 cis-1,2-DCE, 2010

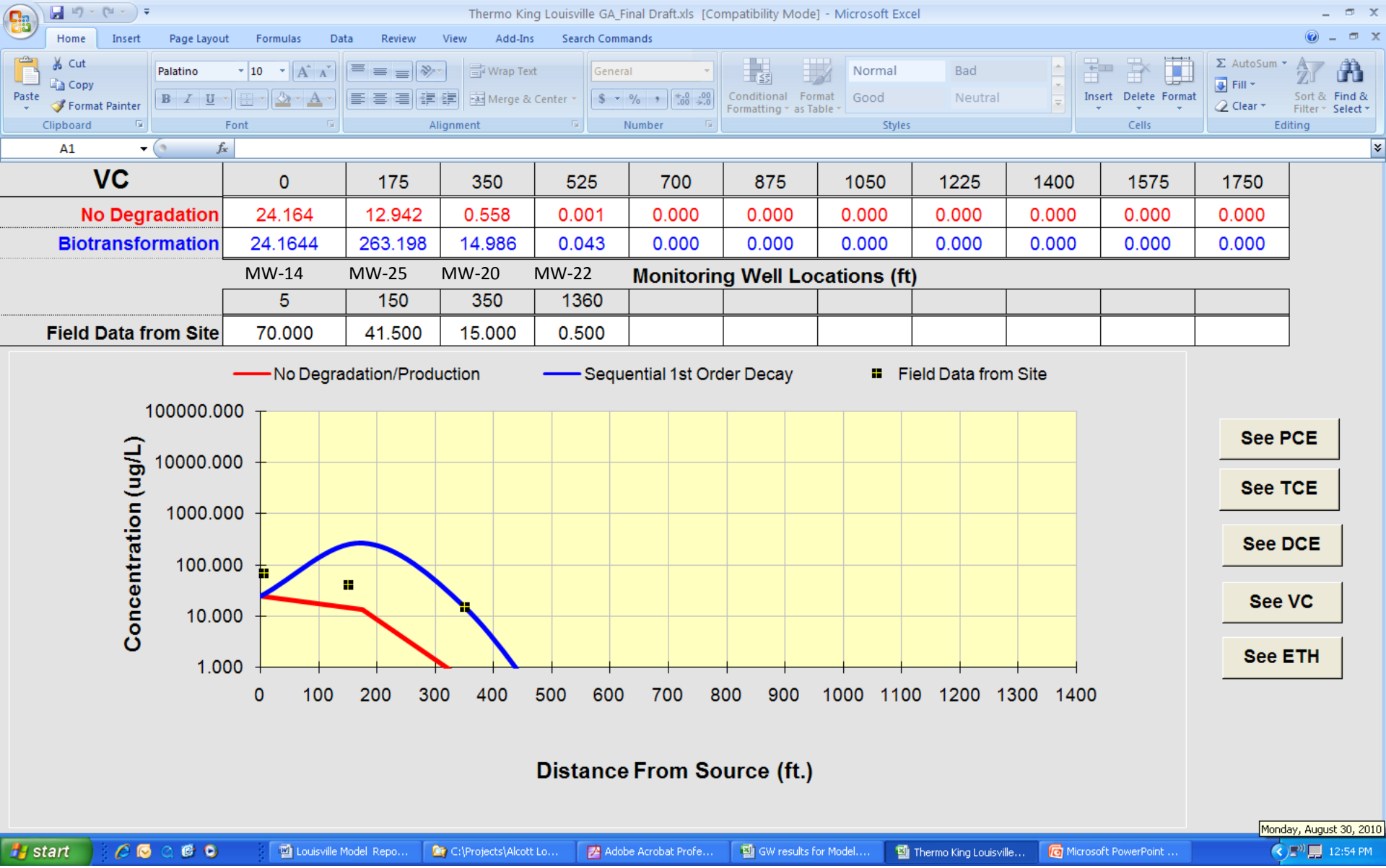


Figure E5 VC, 2010

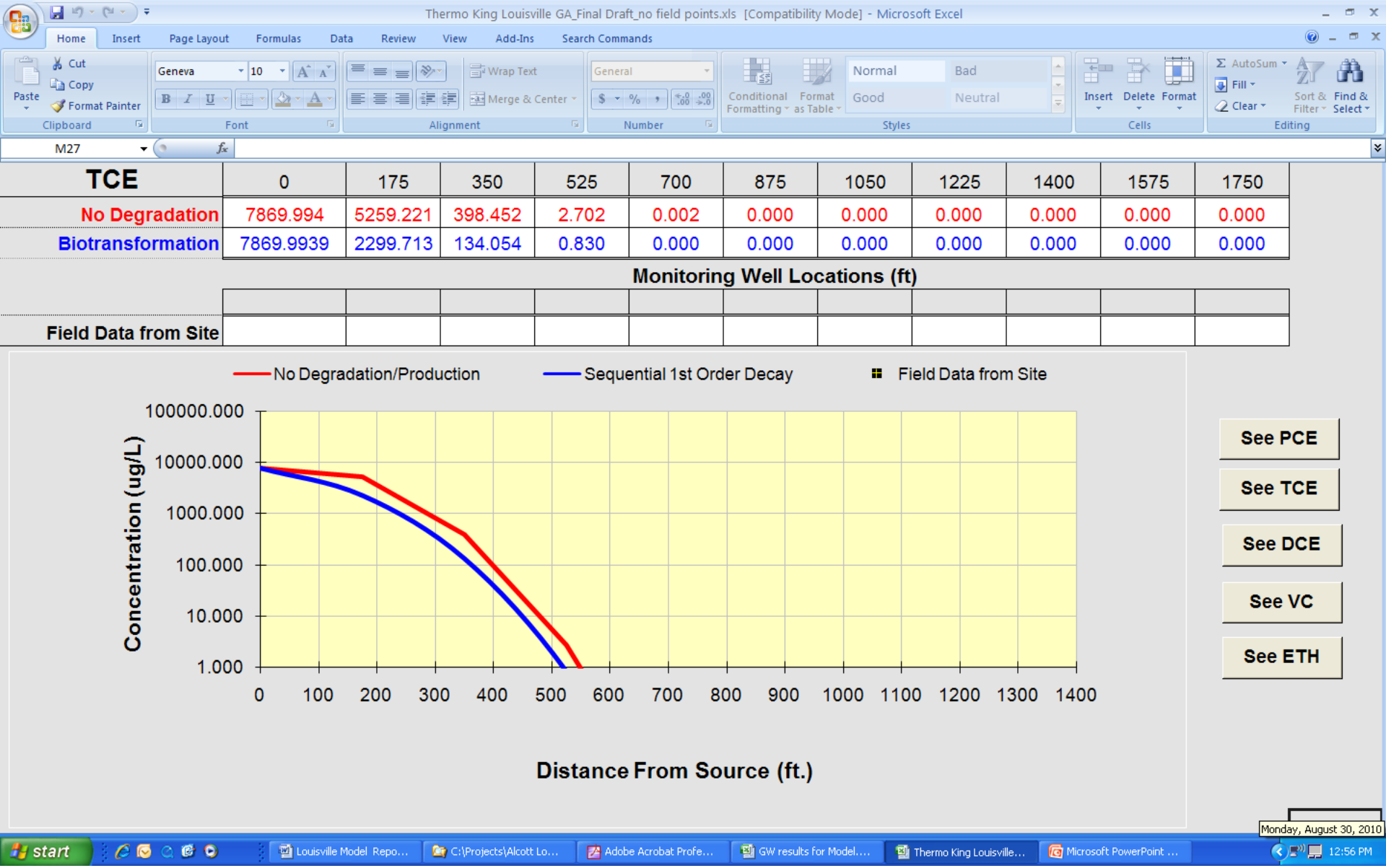


Figure E6 TCE, 2012

Thermo King Louisville GA_Final Draft_no field points.xls [Compatibility Mode] - Microsoft Excel

DCE	0	175	350	525	700	875	1050	1225	1400	1575	1750
No Degradation	444.093	296.770	22.484	0.152	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	444.0929	1865.187	152.795	1.049	0.001	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
Field Data from Site											

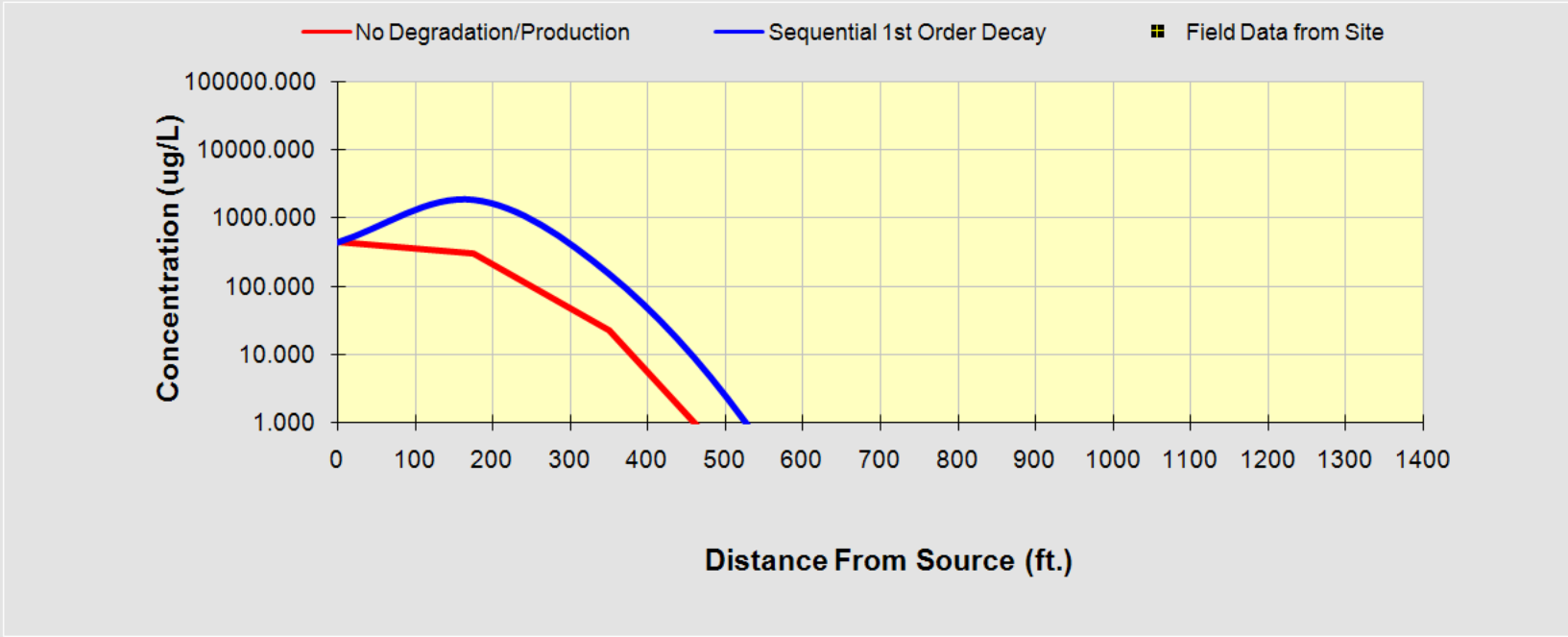


Figure E7 cis-1,2-DCE, 2012

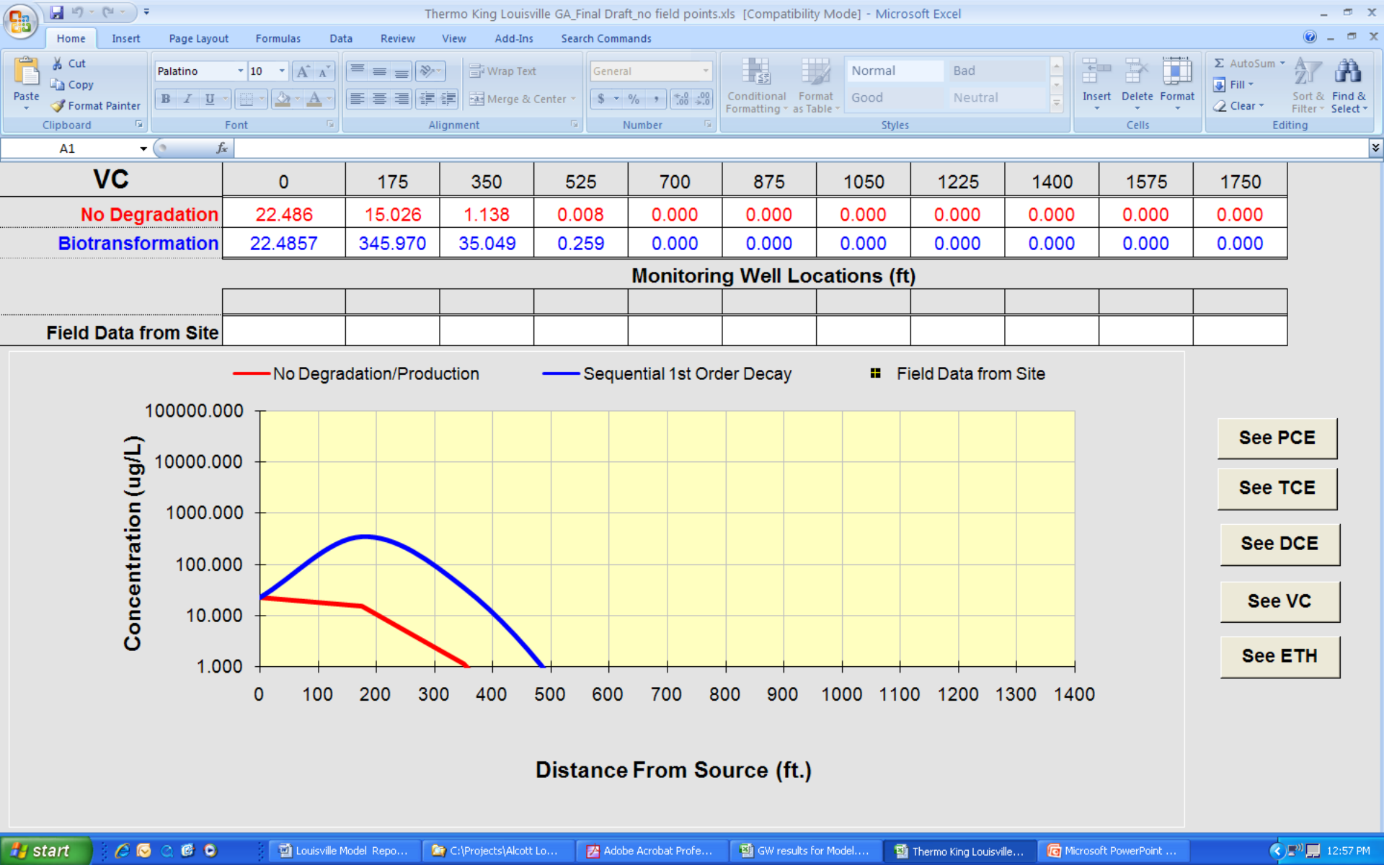


Figure E8 VC, 2012

Thermo King Louisville GA_Final Draft_no field points.xls [Compatibility Mode] - Microsoft Excel

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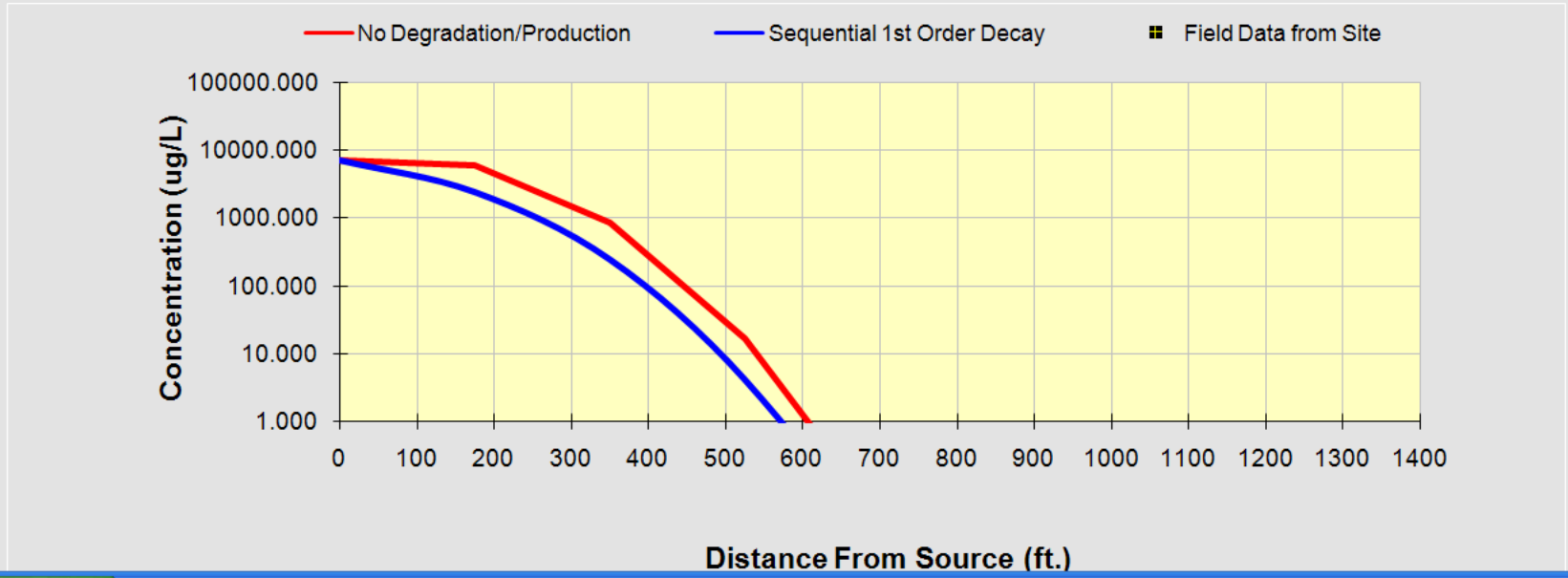
A1

TCE	Distance from Source (ft) 0	175	350	525	700	875	1050	1225	1400	1575	1750
No Degradation	7064.324	6048.215	854.606	16.177	0.038	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	7064.3237	2394.603	242.505	4.063	0.009	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
Field Data from Site											



See PCE | See TCE | See DCE | See VC | See ETH

start | Louisville Model Repo... | C:\Projects\Alcott Lo... | Adobe Acrobat Profe... | GW results for Model.... | Thermo King Louisville... | Microsoft PowerPoint ... | 12:58 PM

Figure E9 TCE, 2015

Thermo King Louisville GA_Final Draft_no field points.xls [Compatibility Mode] - Microsoft Excel

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A1

DCE	Distance from Source (ft) 0	175	350	525	700	875	1050	1225	1400	1575	1750
No Degradation	398.630	341.292	48.224	0.913	0.002	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	398.6301	2189.784	330.033	6.273	0.015	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
Field Data from Site											

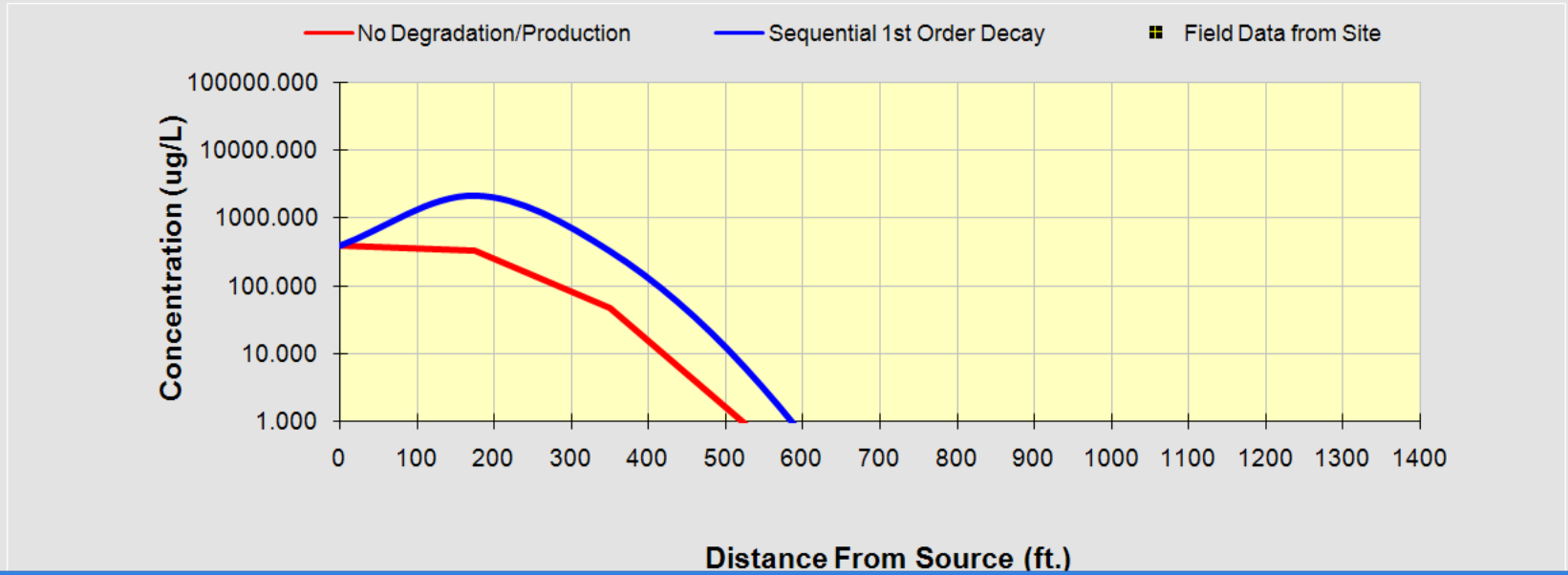

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Figure E10 cis-1,2-DCE, 2015

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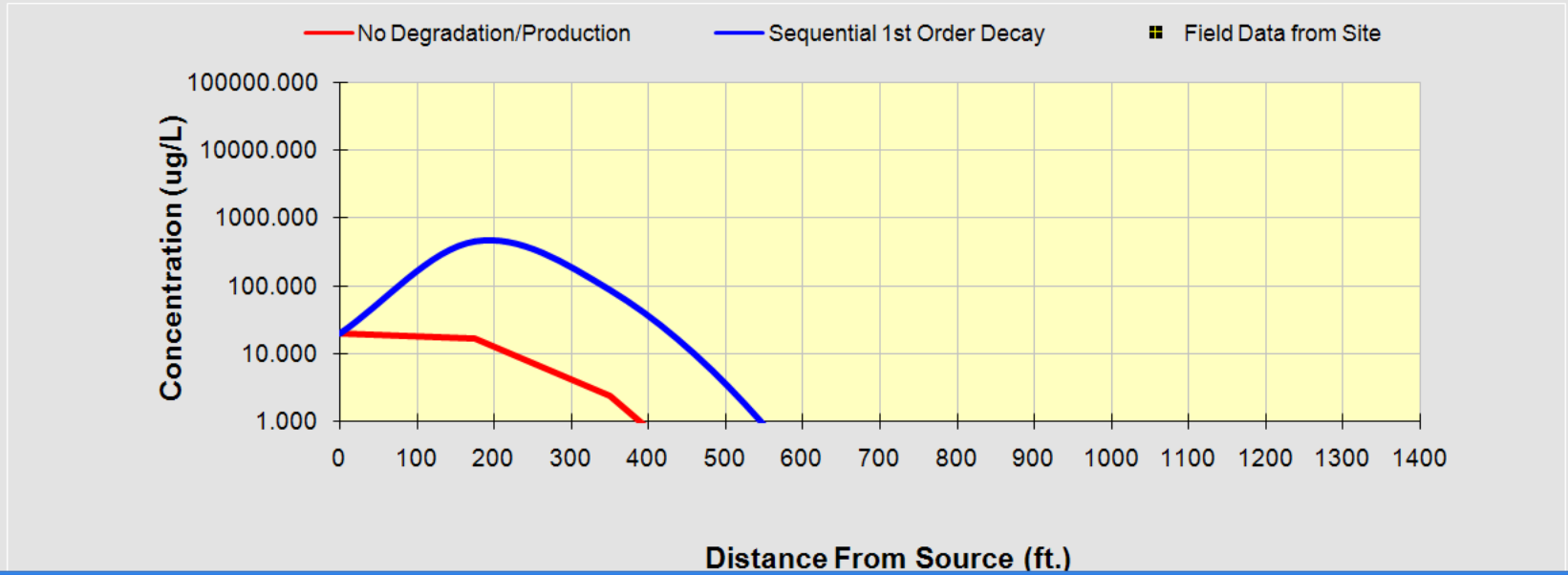
A1

	Distance from Source (ft)										
VC	0	175	350	525	700	875	1050	1225	1400	1575	1750
No Degradation	20.184	17.281	2.442	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	20.1838	461.383	88.415	1.829	0.004	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
Field Data from Site											



See PCE

See TCE

See DCE

See VC

See ETH

start | Louisville Model Repo... | C:\Projects\Alcott Lo... | Adobe Acrobat Profe... | GW results for Model.... | Thermo King Louisville... | Microsoft PowerPoint ... | 12:59 PM

Figure E11 VC, 2015

Figure E12 TCE, 2020

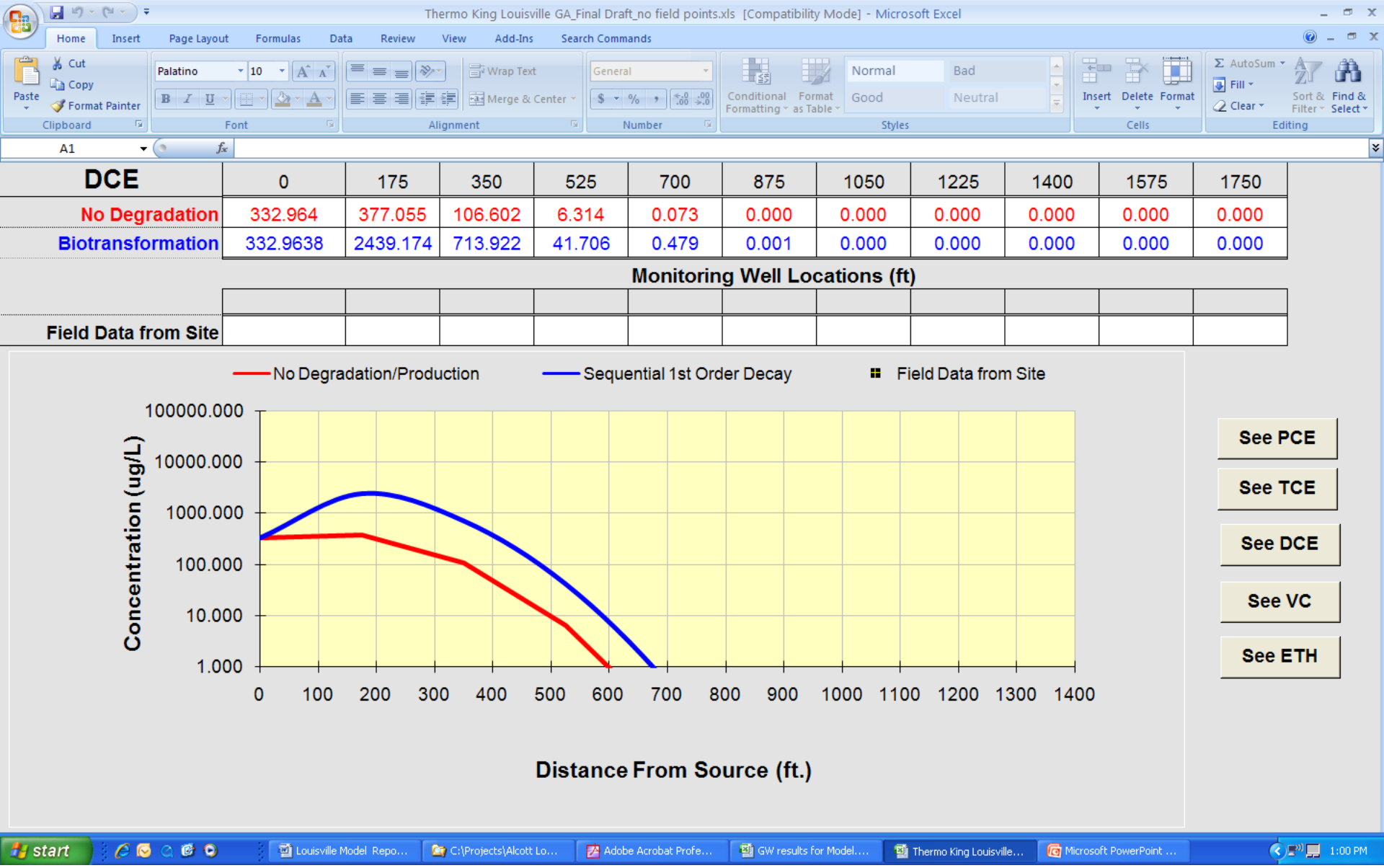


Figure E13 cis-1,2-DCE, 2020

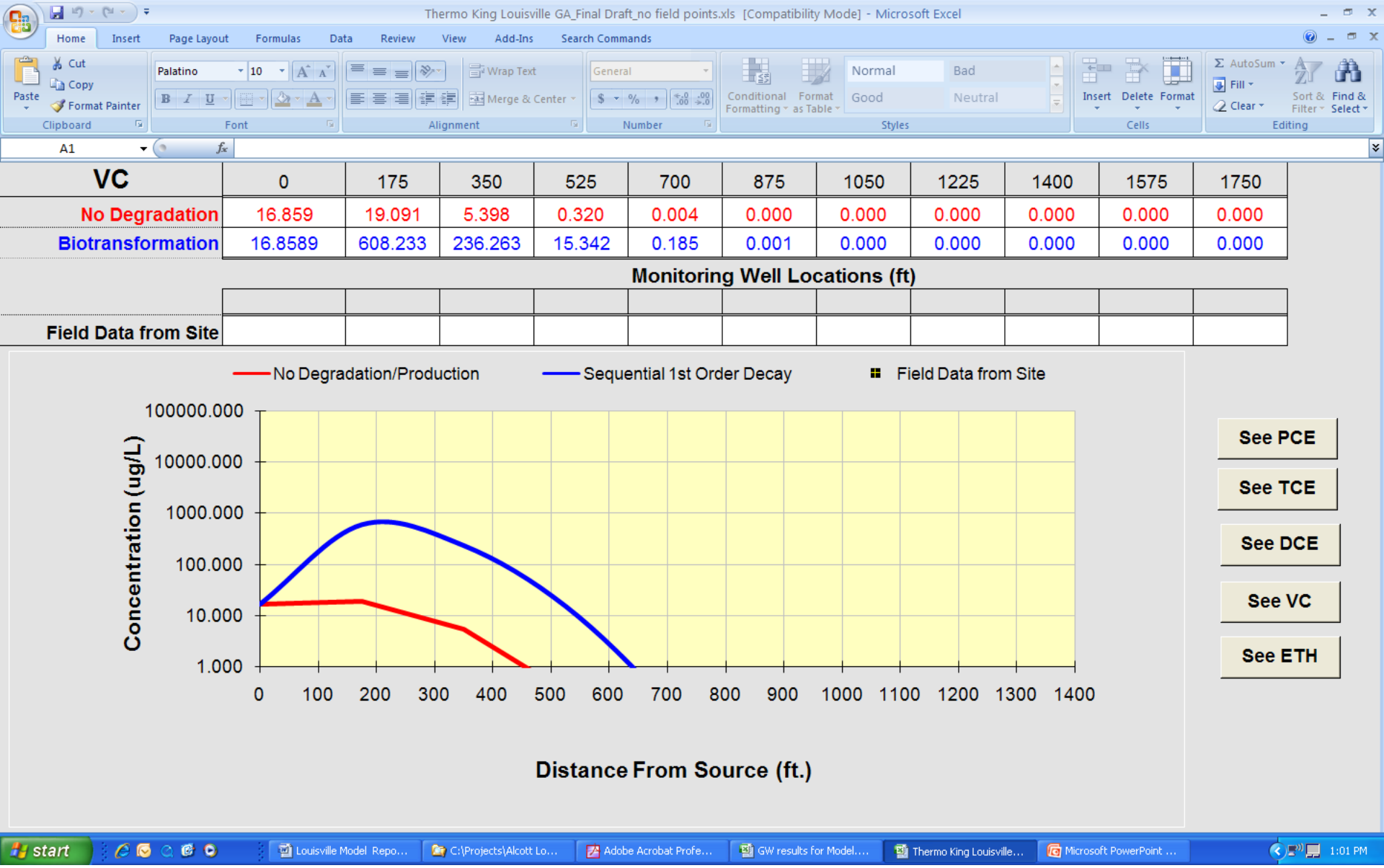


Figure E14 VC, 2020

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A1

TCE	Distance from Source (ft) 0	175	350	525	700	875	1050	1225	1400	1575	1750
No Degradation	1398.021	3108.757	4505.446	3947.983	1996.486	564.214	87.346	7.315	0.329	0.010	0.000
Biotransformation	1398.0205	633.892	267.132	101.413	30.726	6.412	0.829	0.048	0.002	0.000	0.000
	Monitoring Well Locations (ft)										
Field Data from Site											

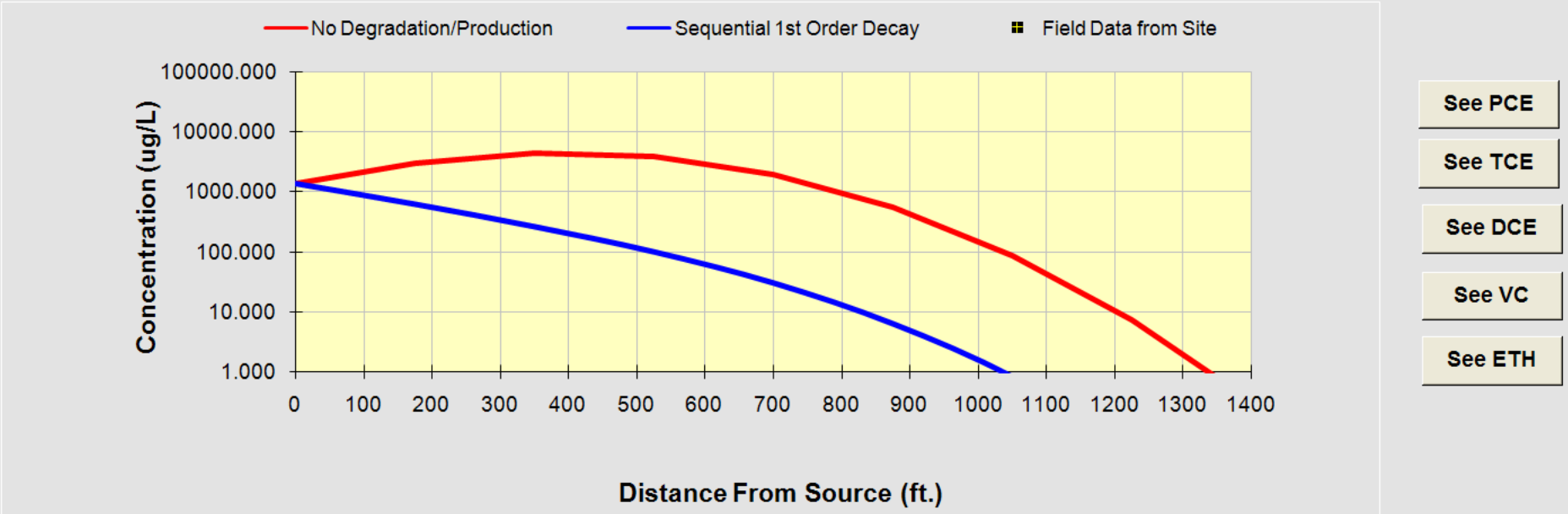

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Figure E15 TCE, 2060

Thermo King Louisville GA_Final Draft_no field points.xls [Compatibility Mode] - Microsoft Excel

	Distance from Source (ft)										
DCE	0	175	350	525	700	875	1050	1225	1400	1575	1750
No Degradation	78.888	175.423	254.236	222.779	112.659	31.838	4.929	0.413	0.019	0.001	0.000
Biotransformation	78.8884	954.181	1035.505	692.222	292.829	74.029	10.674	0.858	0.025	0.001	0.000
	Monitoring Well Locations (ft)										
Field Data from Site											

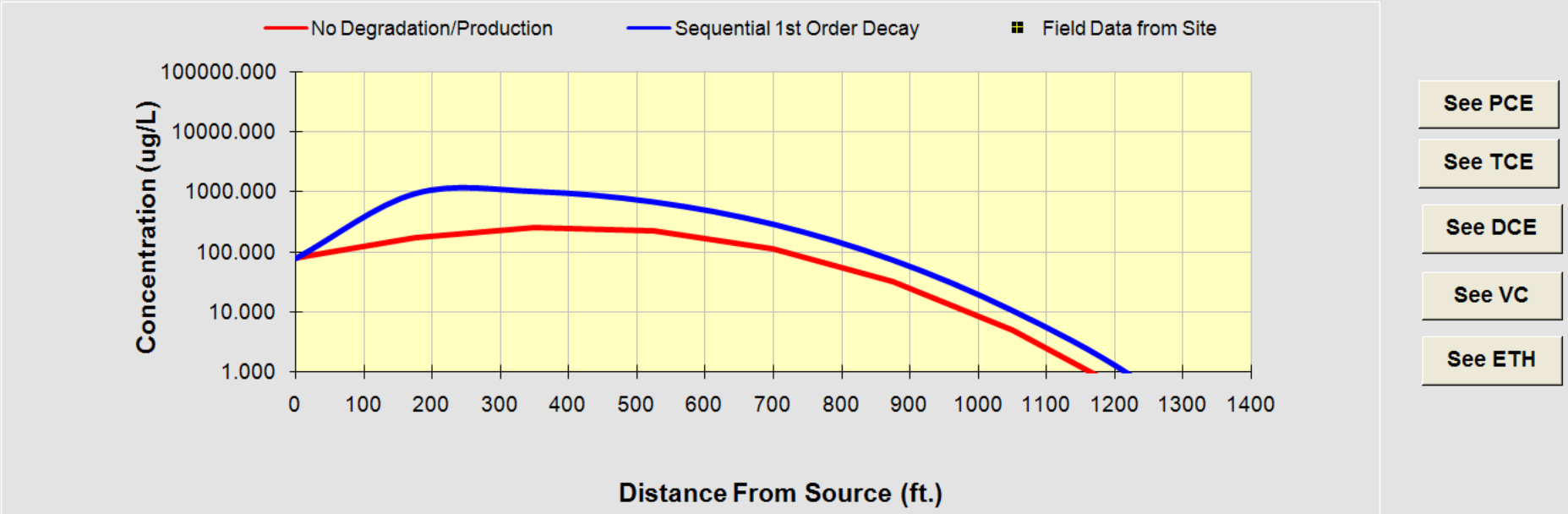

Figure E16 cis-1,2-DCE, 2060

Thermo King Louisville GA_Final Draft_no field points.xls [Compatibility Mode] - Microsoft Excel

Distance from Source (ft)

VC	0	175	350	525	700	875	1050	1225	1400	1575	1750
No Degradation	3.994	8.882	12.873	11.280	5.704	1.612	0.250	0.021	0.001	0.000	0.000
Biotransformation	3.9944	404.081	747.340	660.644	325.043	89.442	13.570	1.228	0.032	0.001	0.000

Monitoring Well Locations (ft)

Field Data from Site											

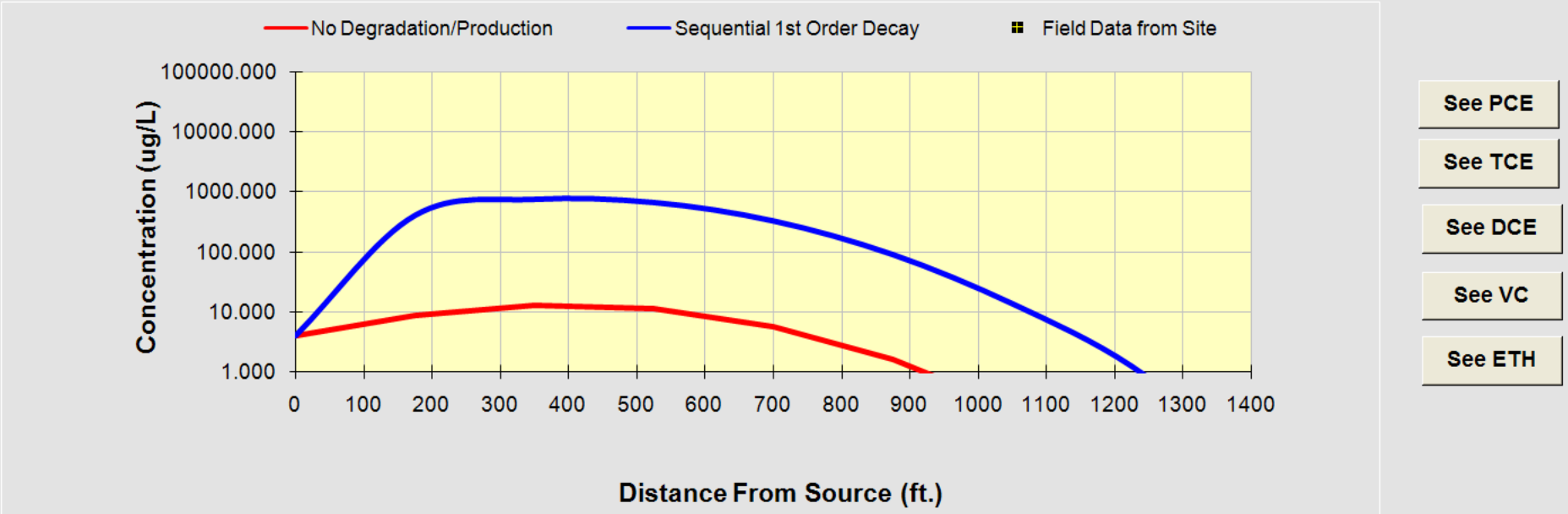

Figure E17 VC, 2060

APPENDIX F:

WELL CONSTRUCTION DIAGRAMS FOR NEW WELLS MW-25, MW-26, MW-27, and MW-28

TEST BORING RECORD

HEIGHT OF RISER: -0.31
TOP OF CASING ELEVATION: 321.18

C:\TKLOGS\MW25.PL3 JMO-1 11-22-10

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (meter units)	Sample Points
321.5	0.0	Red-brown moist sandy medium plasticity CLAY (CH) (probable pond fill)			
	2.0	Red-brown moist medium plasticity CLAY (CH) (probable pond fill); higher plasticity than 0-2 feet		0	
316.5					
	7.0	Red-brown moist slightly sandy to sandy high plasticity CLAY (CH)			
311.5				0	
306.5					
301.5					
	21.5	Red-brown moist micaceous clayey fine to medium SAND (SC)		0	
296.5					
	27.0	White and orange-brown slightly clayey poorly graded fine to medium SAND (SP) with some slightly cemented zones			
291.5				0	
286.5					
	37.0	Light red-brown poorly graded SAND (SP)			
281.5	40.0				

REMARKS:
1) Drilling technique: 0 to 107 feet using rotosonic techniques.
2) Boring advanced 0 to 60 feet with 10-inch diameter outer rotosonic casing and 4-inch dia. soil sampler.
3) 6-inch diameter PVC surface casing grouted in place from 0 to 60 feet.

DRILLED BY Boart Longyear
LOGGED BY J. Moore
CHECKED BY J. Quinn

BORING NUMBER MW-25
DATE STARTED 6/1/10
DATE COMPLETED 6/2/10
JOB NUMBER 6122-09-0322

MACTEC

TEST BORING RECORD

HEIGHT OF RISER: -0.31
TOP OF CASING ELEVATION: 321.18

C:\TKLOGS\MW25.PL3 JMO-1 11-22-10

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	PID Reading (meter units)
281.5	40.0	(continued) Light red-brown poorly graded SAND (SP)	0
	43.0	Light red-brown poorly graded SAND (SP) with thin brown clay zones and white limestone fragments	
276.5	46.5		
	47.0	Dark brown wet poorly graded SAND (SP) with clay zones; some foliation in clay zones	
		Light gray, white and yellow-brown poorly graded SAND (SP) with increasing fines with depth	0
271.5			
266.5	55.0	Stiff white, tan and light gray moist CLAY with some angular fossiliferous limestone fragments	
261.5	60.0	Stiff light gray and white moist to dry low plasticity CLAY (CL) with some limestone fragments	0
256.5			
251.5			
246.5	74.7	Light gray and greenish-gray moist micaceous silty fine to coarse SAND (SM) with clay zones, fossiliferous limestone fragments and slight hydrocarbon odor	8.1
241.5	80.0		

WELL DIAGRAM

Sample Points

REMARKS:
4) Boring advanced from 60 to 107 feet inside 6-inch diameter PVC surface casing with nominal 6-inch diameter outer rotosonic casing and 4-inch diameter soil sampler.

DRILLED BY Boart Longyear
LOGGED BY J. Moore
CHECKED BY J. Quinn

BORING NUMBER MW-25
DATE STARTED 6/1/10
DATE COMPLETED 6/2/10
JOB NUMBER 6122-09-0322

MACTEC

TEST BORING RECORD

HEIGHT OF RISER: -0.31
TOP OF CASING ELEVATION: 321.18

C:\TKLOGS\MW25.PL3 JMO-1 11-22-10

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	WELL DIAGRAM	PID Reading (meter units)	Sample Points
241.5	80.0	(continued) Light gray and greenish-gray moist micaceous silty fine to coarse SAND (SM) with fossiliferous limestone fragments and slight hydrocarbon odor		12.7	
236.5					
	87.0	Gray to blue-gray silty fine to coarse SAND (SM) with interbedded CLAY and SILT and chert and limestone fragments and slight hydrocarbon odor			
231.5				8.7	
226.5					
221.5				11.4	
216.5					
	106.0	Stiff gray to blue-gray CLAY (CH) with slight hydrocarbon odor			
	107.0	Boring terminated at 107.0 feet			
211.5					
206.5					
201.5	120.0				

REMARKS:
5) Inner Casing: Schedule 40 PVC, 2-inch diameter well casing set 0 to 107 feet with 15 feet of 0.01-inch slot well screen at 91.8 to 106.8 feet.
6) ∓ Static water level on 6/24/10.

DRILLED BY	Boart Longyear	BORING NUMBER	MW-25
LOGGED BY	J. Moore	DATE STARTED	6/1/10
CHECKED BY	J. Quinn	DATE COMPLETED	6/2/10
		JOB NUMBER	6122-09-0322

MACTEC

TEST BORING RECORD

Height of riser 3.85 ft
Top of casing elevation 255.29 ft

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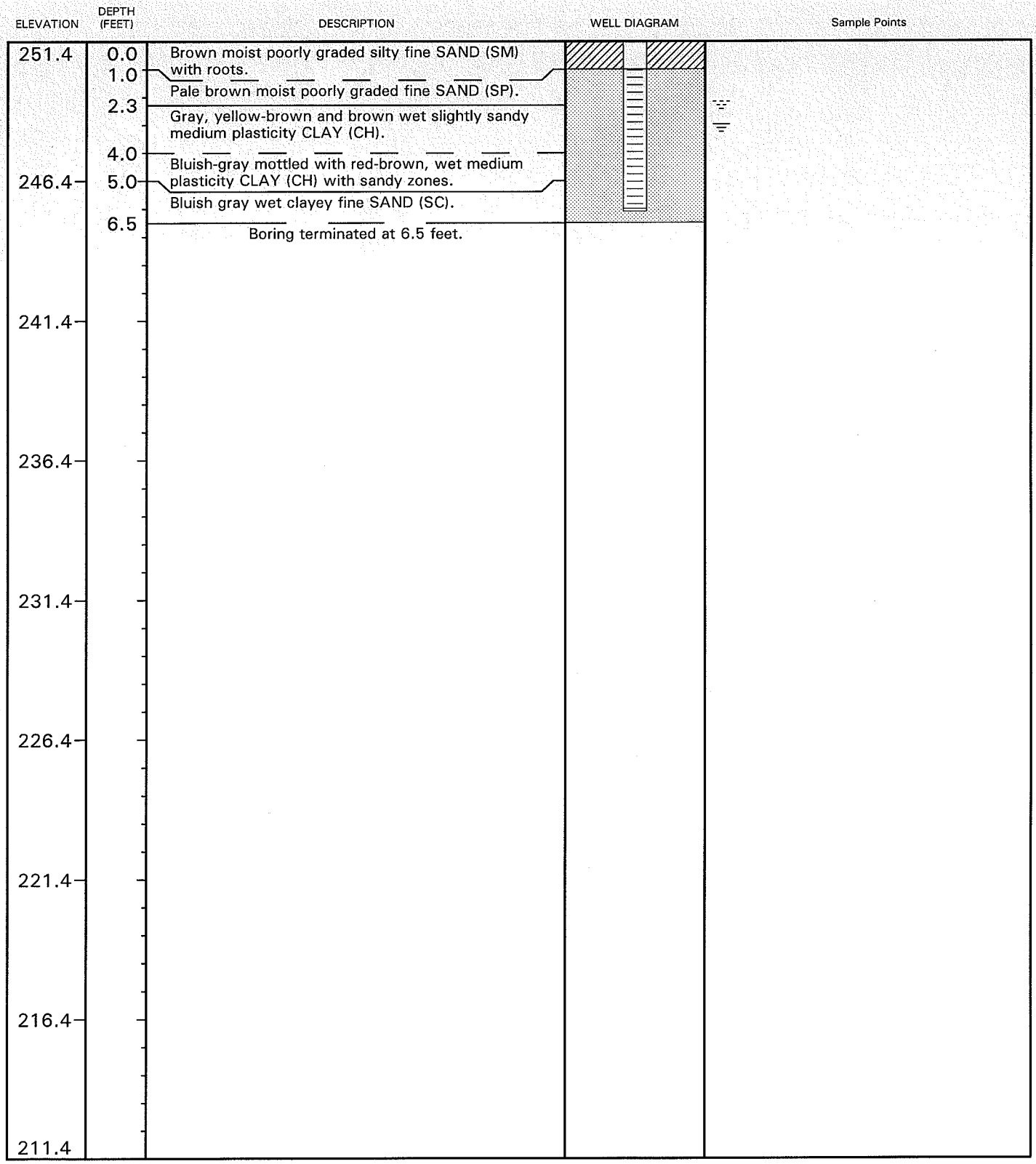

REMARKS:
1. Drilling Technique: 0 to 6.5 feet using 4-inch OD hand auger.
2. 3/4-inch PVC well with 5 feet pre-packed screen.
3. ⏚ Water level measured on 10/20/10.

DRILLED BY MACTEC
LOGGED BY J. Moore
CHECKED BY J. Quinn

BORING NUMBER	MW-26
DATE STARTED	10/19/2010
DATE COMPLETED	10/19/2010
JOB NUMBER	6122-09-0322

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser 2.8 ft
Top of casing elevation 257.50 ft

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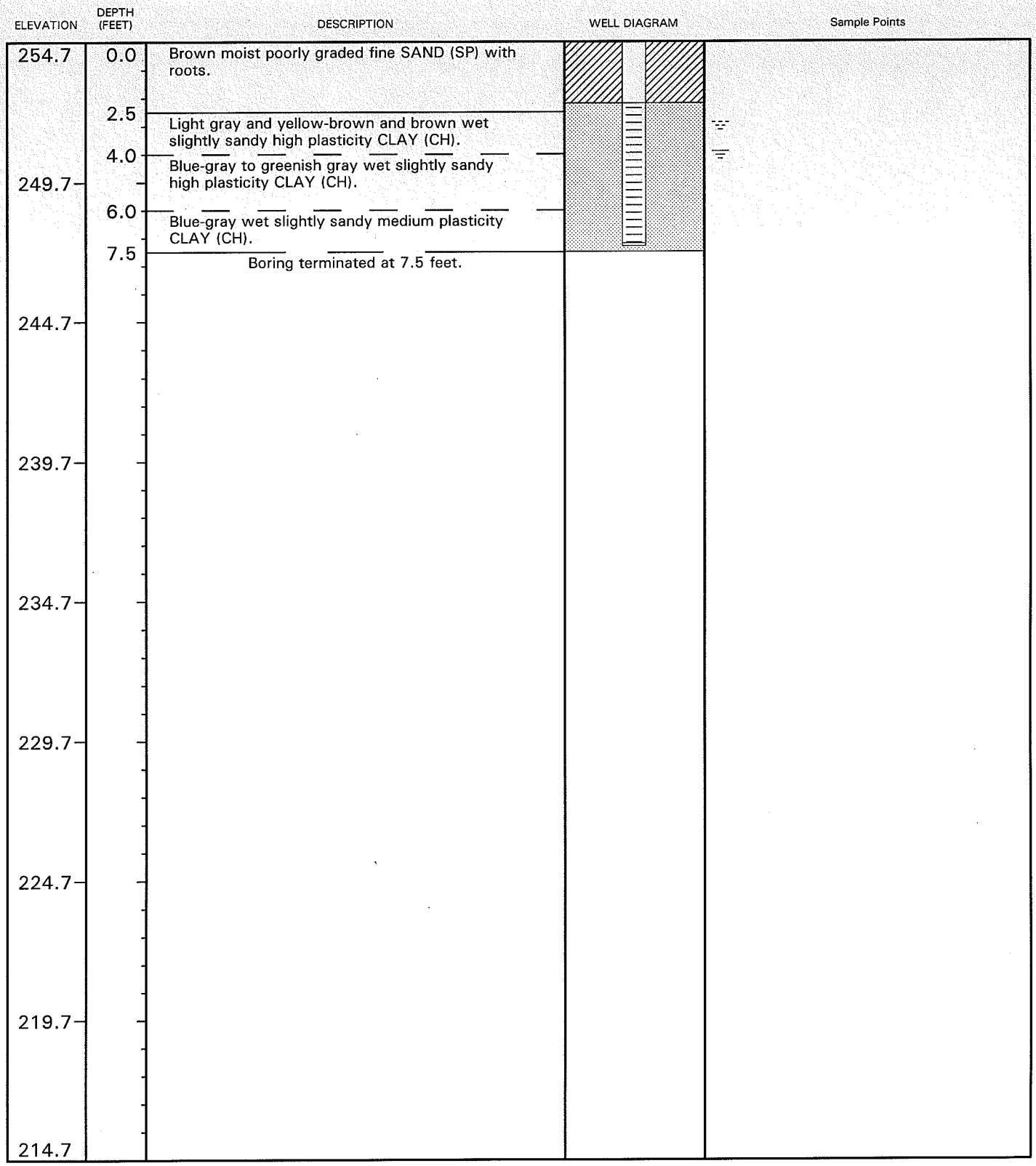


REMARKS:
1. Drilling Technique: 0 to 7.5 feet using 4-inch OD hand auger.
2. 3/4-inch PVC well with 5 feet pre-packed screen.
3. ⏚ Water level measured on 10/20/10.

DRILLED BY MACTEC
LOGGED BY J. Moore
CHECKED BY J. Quinn

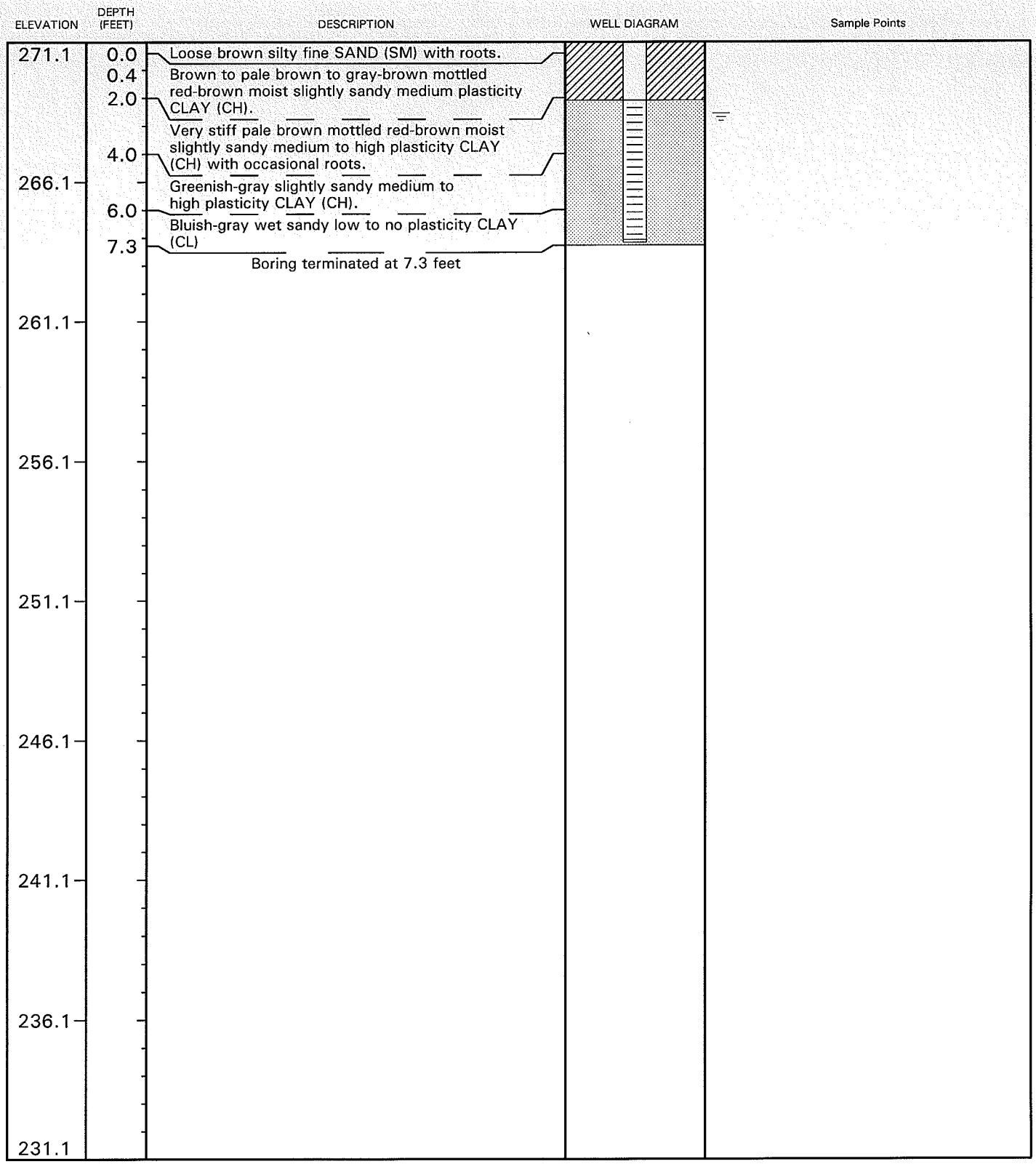
BORING NUMBER	MW-27
DATE STARTED	10/19/2010
DATE COMPLETED	10/19/2010
JOB NUMBER	6122-09-0322

MACTEC Engineering&Consulting

TEST BORING RECORD

Height of riser 0.65 ft
Top of casing elevation 271.73 ft

C:\TKLOGS\MW28.PL3 JMQ-1 11-22-10



REMARKS:
1. Drilling Technique: 0 to 7.3 feet using 4-inch OD hand auger.
2. 3/4-inch PVC well with 5 feet pre-packed screen.
3. ⏚ Water level measured on 10/20/10.

DRILLED BY MACTEC
LOGGED BY J. Moore
CHECKED BY J. Quinn

BORING NUMBER	MW-28
DATE STARTED	10/19/2010
DATE COMPLETED	10/19/2010
JOB NUMBER	6122-09-0322

MACTEC Engineering&Consulting

WELL DEVELOPMENT DATA

MACTEC JOB NAME___TK-Louisville___JOB NUMBER_6122-09-0322____

BY__JAM_____ DATE__6/3/2010____ CHECKED__RNQ_____ DATE_7/19/2010_____
SHEET _1__OF _1_

WELL DEVELOPMENT DATA

- WELL NO.__MW-25_____
- DATE OF INSTALLATION:___6/2/2010_____ DATE OF DEVELOPMENT:___6/3/2010_____
- STATIC WATER LEVEL: Before Development 73.38 FT.; 24 Hours After Development _75.91__FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED:__0_____GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT__21____GAL.

Volume Removed (gals)	pH std units	Specific Cond. (uS/cm)	Temp. (F or C °)	Turbidity NTUs	Notes
0	6.1	0.4	21 C	nm	
20	6.1	0.4	21 C	nm	Very turbid with odor
56	6.1	0.4	21 C	nm	Water clearing, light white-gray color and silty
111	6.1	0.4	21 C	nm	
116	6.5	0.4	21 C	nm	
121		0.4	21 C	nm	Continued pump/surge
126	6.5	0.4	21 C	nm	Continued pump/surge
131	6.5	0.4	21 C	nm	Continued pump/surge
136	6.5	0.4	21 C	nm	Water clear

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL _____107_____FT.
- SCREEN LENGTH _____15_____FT.
- DEPTH TO TOP OF SEDIMENT: Before Development 106.5__ FT.; After Development _107____FT.
- PHYSICAL CHARACTER OF WATER:__begins as very turbid and clears after pumping and surging_
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT:__air lift pump_____
- DESCRIPTION OF SURGE TECHNIQUE , IF USED:__moving pump up and down through screen interval__
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE____-0.3_____FT.
- TIME FOR REMOVAL: _____5 hrs_____Hr./ Min.

- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

MACTEC JOB NAME TK-Louisville JOB NUMBER 6122-09-0322

BY JAM DATE 10/19/2010 CHECKED RNQ DATE 12/17/2010
SHEET 1 OF 1

WELL DEVELOPMENT DATA

- WELL NO. MW-26
- DATE OF INSTALLATION: 10/19/2010 DATE OF DEVELOPMENT: 10/20/2010
- STATIC WATER LEVEL: Before Development 7.0 FT.; 24 Hours After Development 7.0 FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 0 GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT 1.1 GAL.

Volume Removed (gals)	pH std units	Specific Cond. (uS/cm)	Temp. (F or C °)	Turbidity NTUs	Notes
0	nm	nm	nm	nm	
2	6.27	0.25	18.8 C	22.7	Very turbid at beginning and then clears and then goes dry

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL 10 ft (3.9 ft stickup well set to 6.1 ft bgs) FT.
- SCREEN LENGTH 5 prepack screen FT.
- DEPTH TO TOP OF SEDIMENT: Before Development 10 FT.; After Development 10 FT.
- PHYSICAL CHARACTER OF WATER: begins as very turbid and clears after pumping and surging
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: peristaltic pump
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: moving tubing up and down through screen interval
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE 3.9 FT.
- TIME FOR REMOVAL: 15 min Hr./ Min.

- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

MACTEC JOB NAME TK-Louisville JOB NUMBER 6122-09-0322

BY JAM DATE 10/19/2010 CHECKED RNQ DATE 12/17/2010
SHEET 1 OF 1

WELL DEVELOPMENT DATA

- WELL NO. MW-27
- DATE OF INSTALLATION: 10/19/2010 DATE OF DEVELOPMENT: 10/20/2010
- STATIC WATER LEVEL: Before Development 6.84 FT.; 24 Hours After Development 6.84 FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 0 GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT 1.2 GAL.

Volume Removed (gals)	pH std units	Specific Cond. (uS/cm)	Temp. (F or C °)	Turbidity NTUs	Notes
0	nm	nm	nm	nm	
0.5	nm	nm	nm	nm	Pumped dry, turbid
1	nm	nm	nm	nm	turbid
1.2	5.42	0.07	18.9	111	clearing

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL 10.1 (2.8 ft stickup well set to 7.3 ft bgs) FT.
- SCREEN LENGTH 5 prepack screen FT.
- DEPTH TO TOP OF SEDIMENT: Before Development 10.1 FT.; After Development 10.1 FT.
- PHYSICAL CHARACTER OF WATER: begins as turbid and clears after pumping and surging
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: peristaltic pump
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: moving tubing up and down through screen interval
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE 2.8 FT.
- TIME FOR REMOVAL: 11 min Hr./ Min.

- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

MACTEC JOB NAME TK-Louisville JOB NUMBER 6122-09-0322

BY JAM DATE 10/19/2010 CHECKED RNQ DATE 12/17/2010
SHEET 1 OF 1

WELL DEVELOPMENT DATA

- WELL NO. MW-28
- DATE OF INSTALLATION: 10/19/2010 DATE OF DEVELOPMENT: 10/20/2010
- STATIC WATER LEVEL: Before Development 5.59 FT.; 24 Hours After Development 5.59 FT.
- QUANTITY OF WATER LOST DURING DRILLING, IF USED: 0 GAL.
- QUANTITY OF STANDING WATER IN WATER AND ANNULUS BEFORE DEVELOPMENT 1.6 GAL.

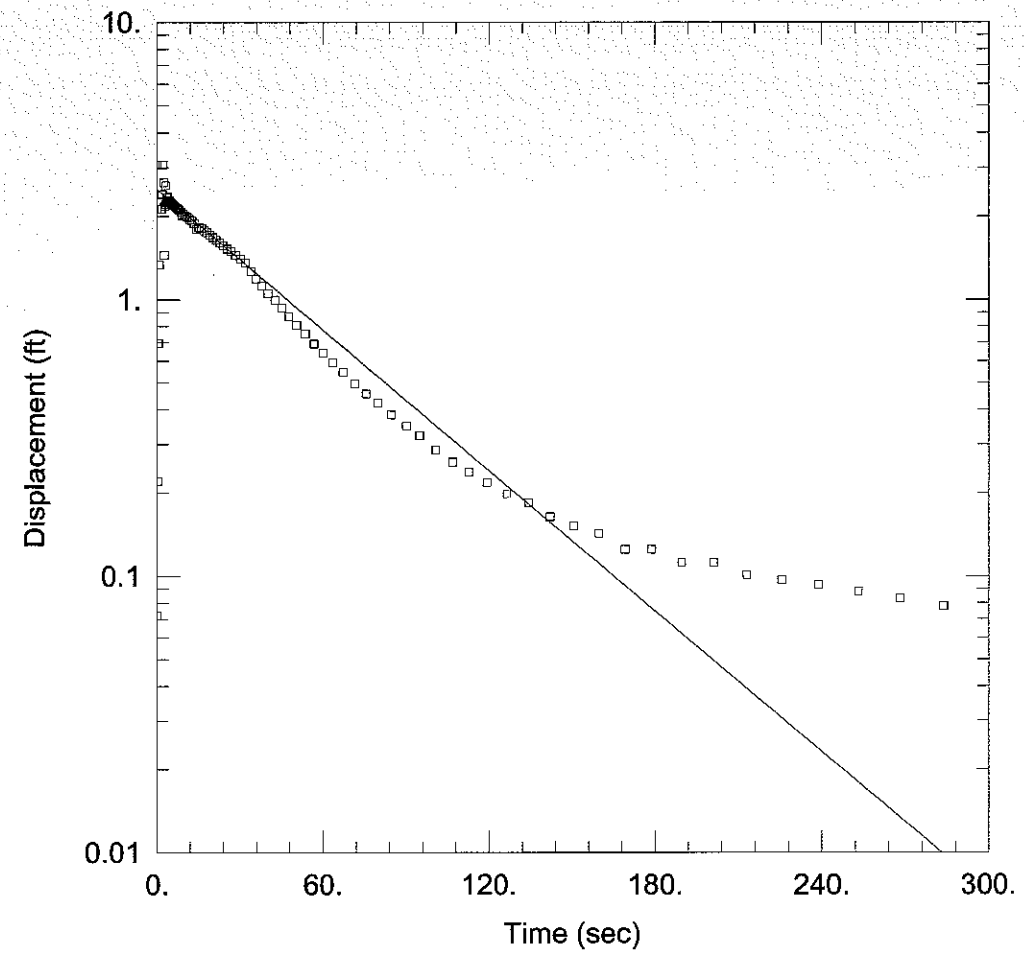
Volume Removed (gals)	pH std units	Specific Cond. (uS/cm)	Temp. (F or C °)	Turbidity NTUs	Notes
0	nm	nm	nm	nm	Turbid gray &white
1.5	nm	nm	nm	614	Turbid gray &white
4	5.58	0.13	18	93	clearing
5	5.6	0.11	18.6	72	clearing

- DEPTH FROM TOP OF WELL CASING TO BOTTOM OF WELL 10.1 (2.9 ft stickup well set to 7.2 ft bgs) FT.
- SCREEN LENGTH 5 prepack screen FT.
- DEPTH TO TOP OF SEDIMENT: Before Development 10.1 FT.; After Development 10.1 FT.
- PHYSICAL CHARACTER OF WATER: begins as turbid and clears after pumping and surging
- TYPE AND SIZE OF WELL DEVELOPMENT EQUIPMENT: peristaltic pump
- DESCRIPTION OF SURGE TECHNIQUE , IF USED: moving tubing up and down through screen interval
- HEIGHT OF WELL CASING ABOVE GROUND SURFACE 2.9 FT.
- TIME FOR REMOVAL: 25 min Hr./ Min.

- DEVELOPMENT CONDITIONS: 1) Well Water is Reasonably Clear 2) Sediment Thickness <5% of screen Length 3) Removal of 5 Well Volumes, Including Saturated Filter Annulus

APPENDIX G:

2010 HYDRAULIC CONDUCTIVITY TESTING RESULTS



WELL TEST ANALYSIS

Data Set: C:\...\MW-17in (3).aqt
Date: 08/04/10 Time: 19:25:41

PROJECT INFORMATION

Company: Mactec
Test Well: MW-17

AQUIFER DATA

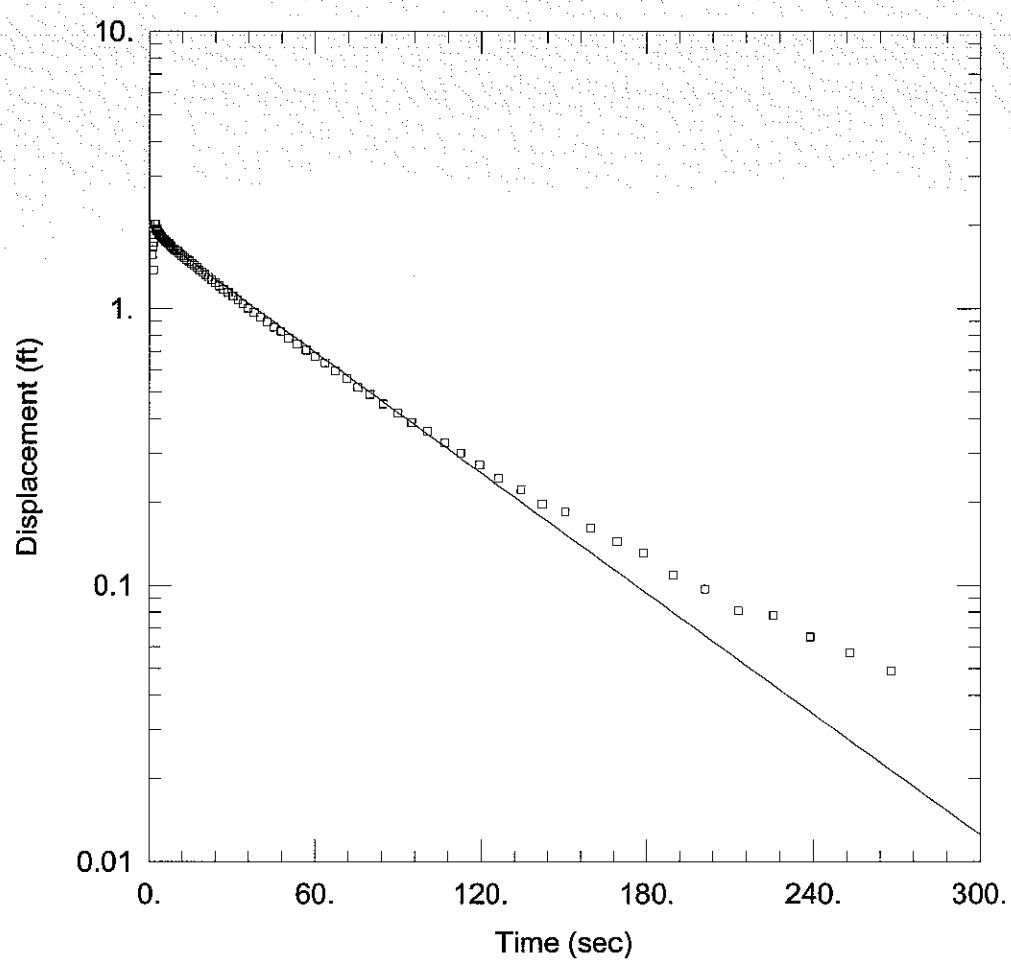
Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17 In)

Initial Displacement: 3.064 ft
Total Well Penetration Depth: 36.5 ft
Casing Radius: 0.083 ft
Static Water Column Height: 36.5 ft
Screen Length: 14.5 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0004302 cm/sec
y0 = 2.501 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-17out (3).aqt
Date: 08/04/10 Time: 19:26:10

PROJECT INFORMATION

Company: MACTEC
Client: Thermo King
Location: Lousiville
Test Well: MW-17 Out
Test Date: 6/2/10

AQUIFER DATA

Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

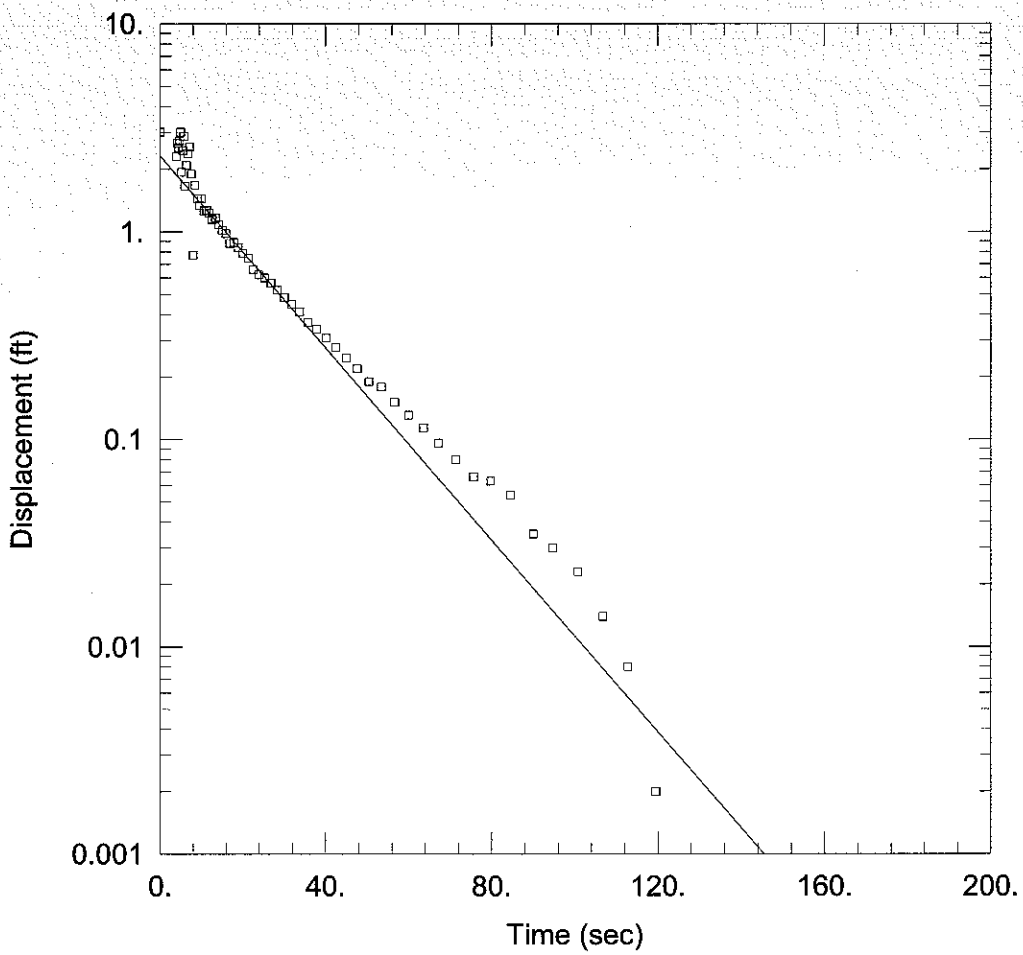
WELL DATA (MW-17 Out)

Initial Displacement: 2.023 ft
Total Well Penetration Depth: 36.5 ft
Casing Radius: 0.083 ft
Static Water Column Height: 36.5 ft
Screen Length: 14.5 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0003693 cm/sec y0 = 1.904 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-20in (3).aqt
Date: 08/04/10 Time: 19:26:41

PROJECT INFORMATION

Company: Mactec
Client: Thermo King
Location: Lousivelle
Test Well: MW-20 In
Test Date: 6/2/10

AQUIFER DATA

Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

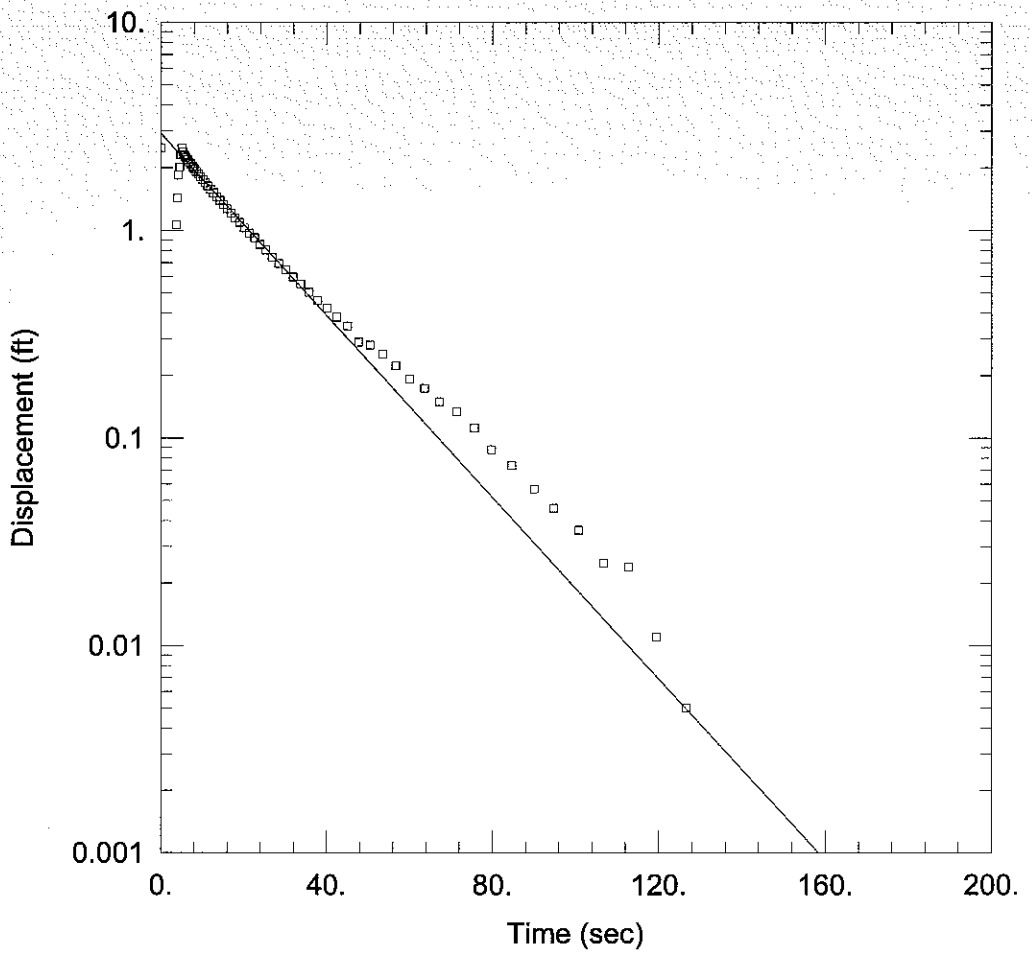
WELL DATA (MW-20 In)

Initial Displacement: 3.015 ft
Total Well Penetration Depth: 26.65 ft
Casing Radius: 0.083 ft
Static Water Column Height: 26.65 ft
Screen Length: 15. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001088 cm/sec y0 = 2.322 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-20out (3).aqt
Date: 08/04/10 Time: 19:27:14

PROJECT INFORMATION

Company: Mactec
Client: Thermo King
Location: Lousiville
Test Well: MW-20 Out
Test Date: 6/2/10

AQUIFER DATA

Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

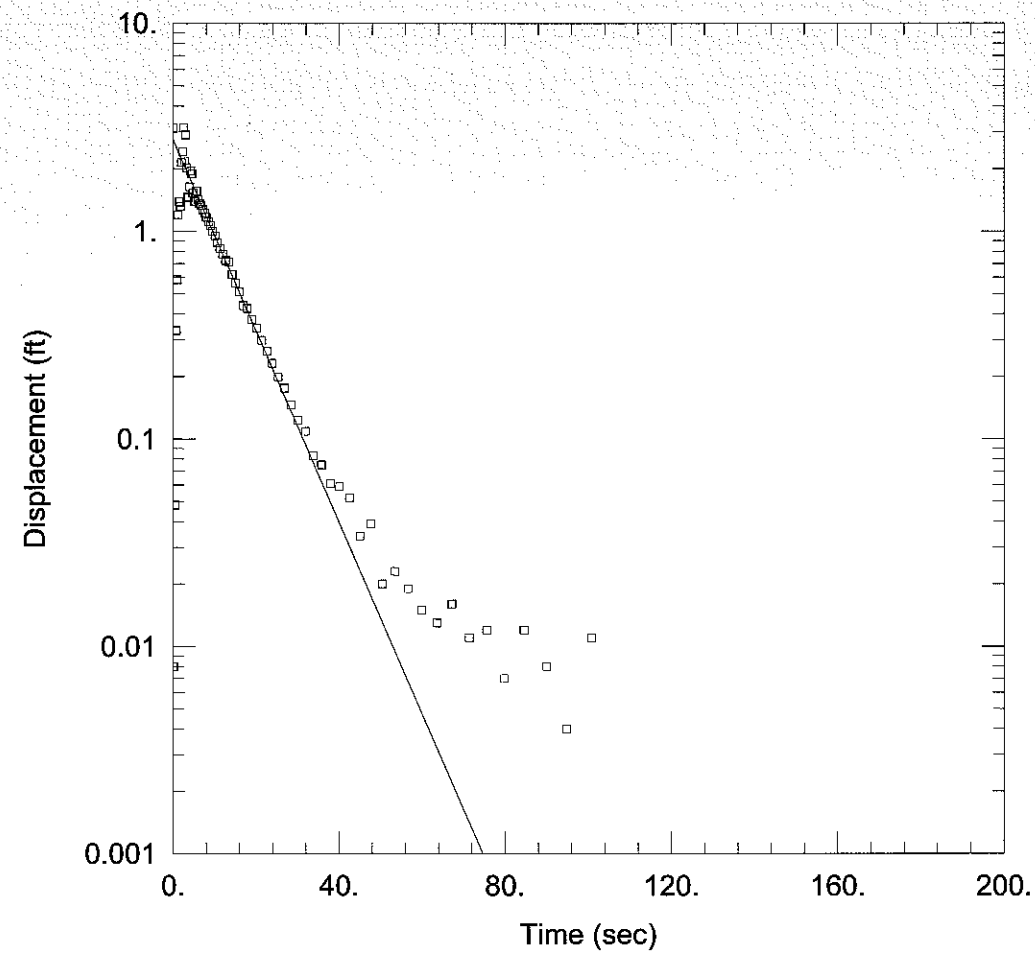
WELL DATA (MW-20 Out)

Initial Displacement: 2.497 ft
Total Well Penetration Depth: 26.65 ft
Casing Radius: 0.083 ft
Static Water Column Height: 26.65 ft
Screen Length: 15. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001029 cm/sec y0 = 2.925 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-22in (3).aqt
Date: 08/04/10 Time: 19:27:44

PROJECT INFORMATION

Company: Mactec
Client: Thermo King
Location: Lousiville, KY
Test Well: MW-22 In
Test Date: 6/2/10

AQUIFER DATA

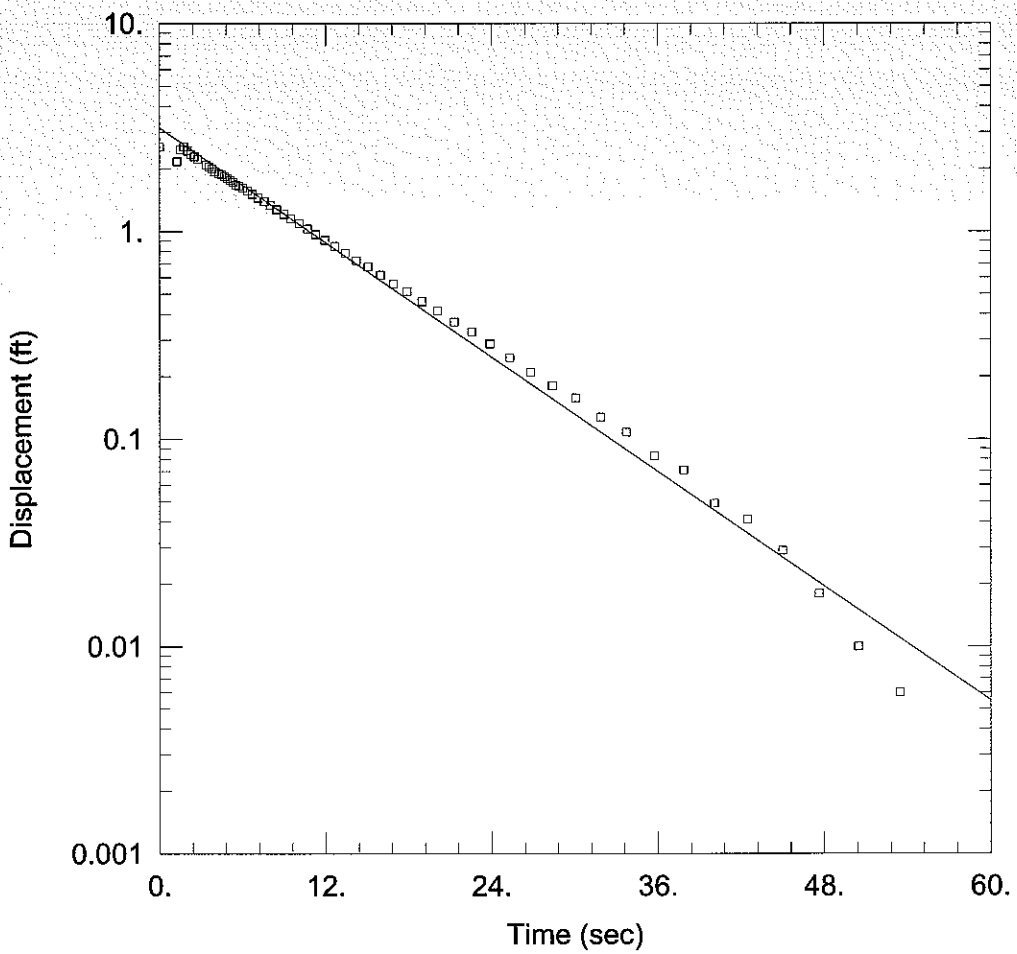
Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-22 In)

Initial Displacement: 3.146 ft Static Water Column Height: 24.43 ft
Total Well Penetration Depth: 24.43 ft Screen Length: 15. ft
Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.002138 cm/sec y0 = 2.756 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-22out (3).aqt
Date: 08/04/10 Time: 19:28:11

PROJECT INFORMATION

Company: Mactec
Client: Thermo King
Location: Lousiville, KY
Test Well: MW-22 Out
Test Date: 6/2/10

AQUIFER DATA

Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

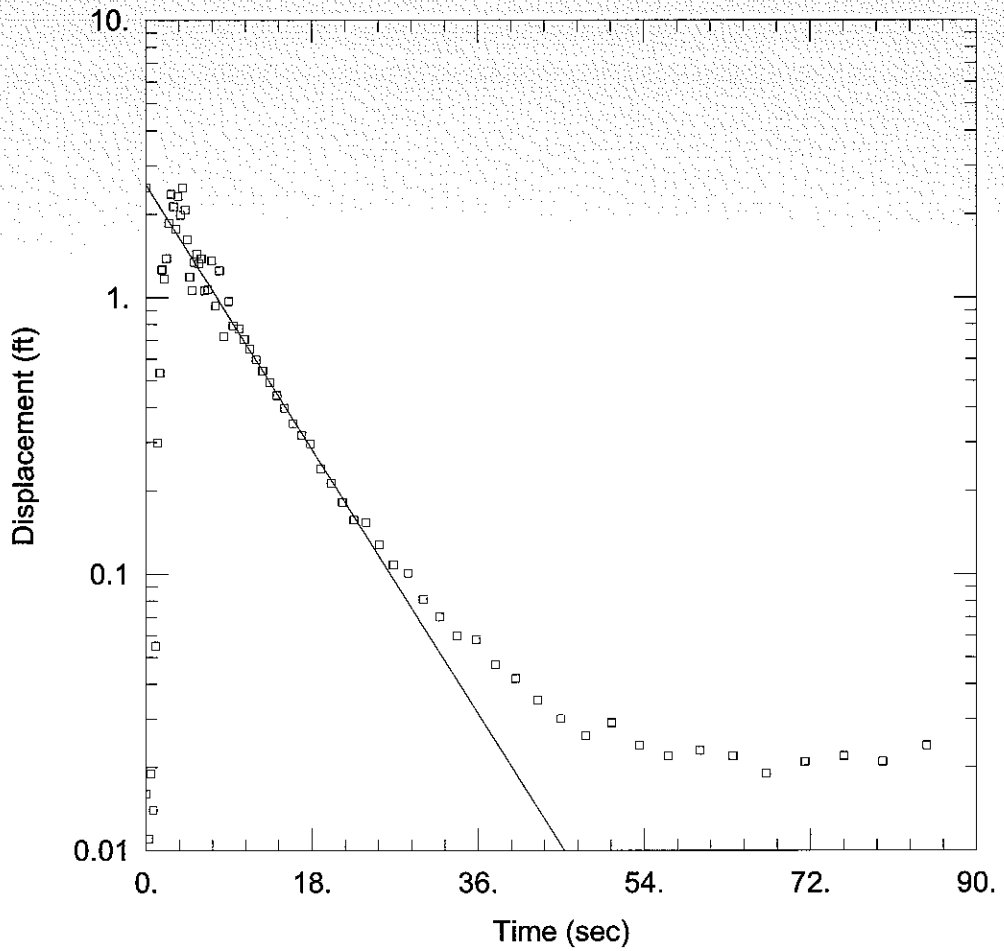
WELL DATA (MW-22 Out)

Initial Displacement: 2.553 ft
Total Well Penetration Depth: 24.43 ft
Casing Radius: 0.083 ft
Static Water Column Height: 24.43 ft
Screen Length: 15. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.002132 cm/sec y0 = 3.15 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-23in (3).aqt
Date: 08/04/10 Time: 19:28:37

PROJECT INFORMATION

Company: Mactec
Client: Thermo King
Location: Lousiville, KY
Test Well: MW-23 In
Test Date: 6/2/10

AQUIFER DATA

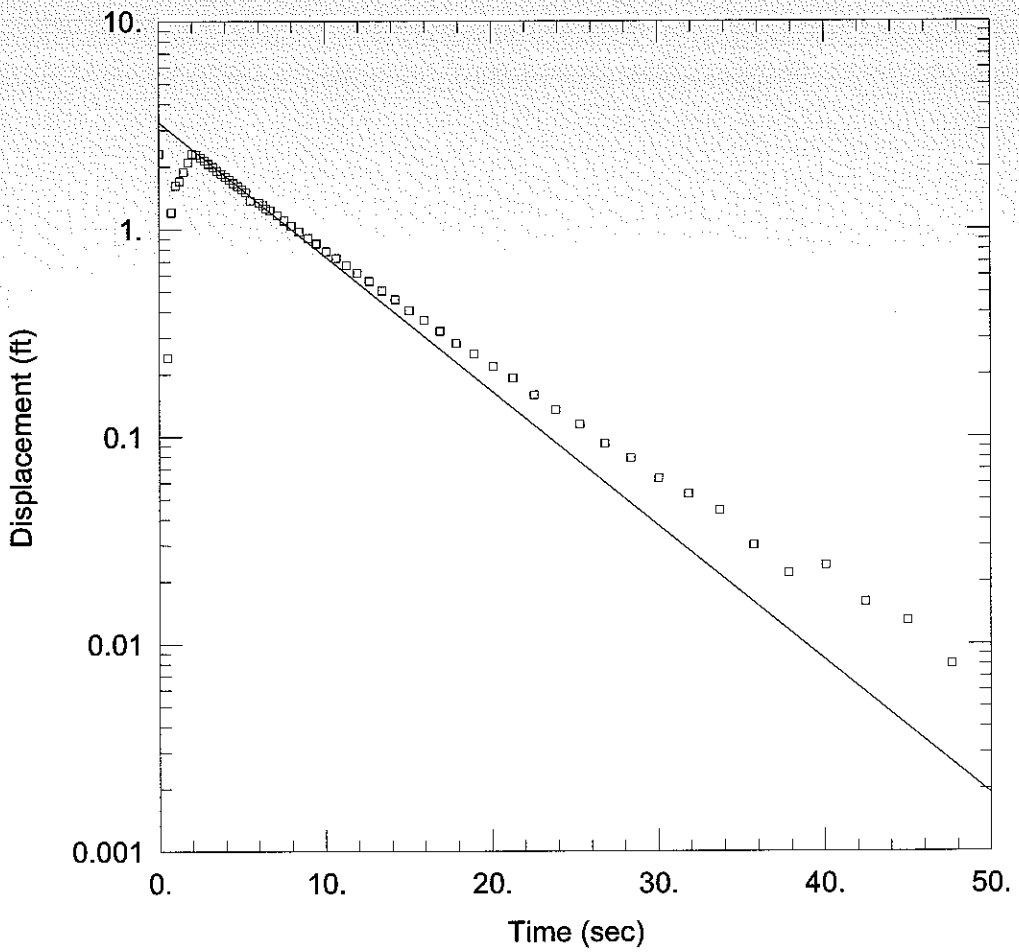
Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23 In)

Initial Displacement: 2.492 ft Static Water Column Height: 26.95 ft
Total Well Penetration Depth: 26.95 ft Screen Length: 16. ft
Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.002368 cm/sec y0 = 2.559 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-23out (3).aqt
Date: 08/04/10 Time: 19:29:01

PROJECT INFORMATION

Company: Mactec
Client: Thermo King
Location: Lousiville, KY
Test Well: MW-23 Out
Test Date: 6/2/10

AQUIFER DATA

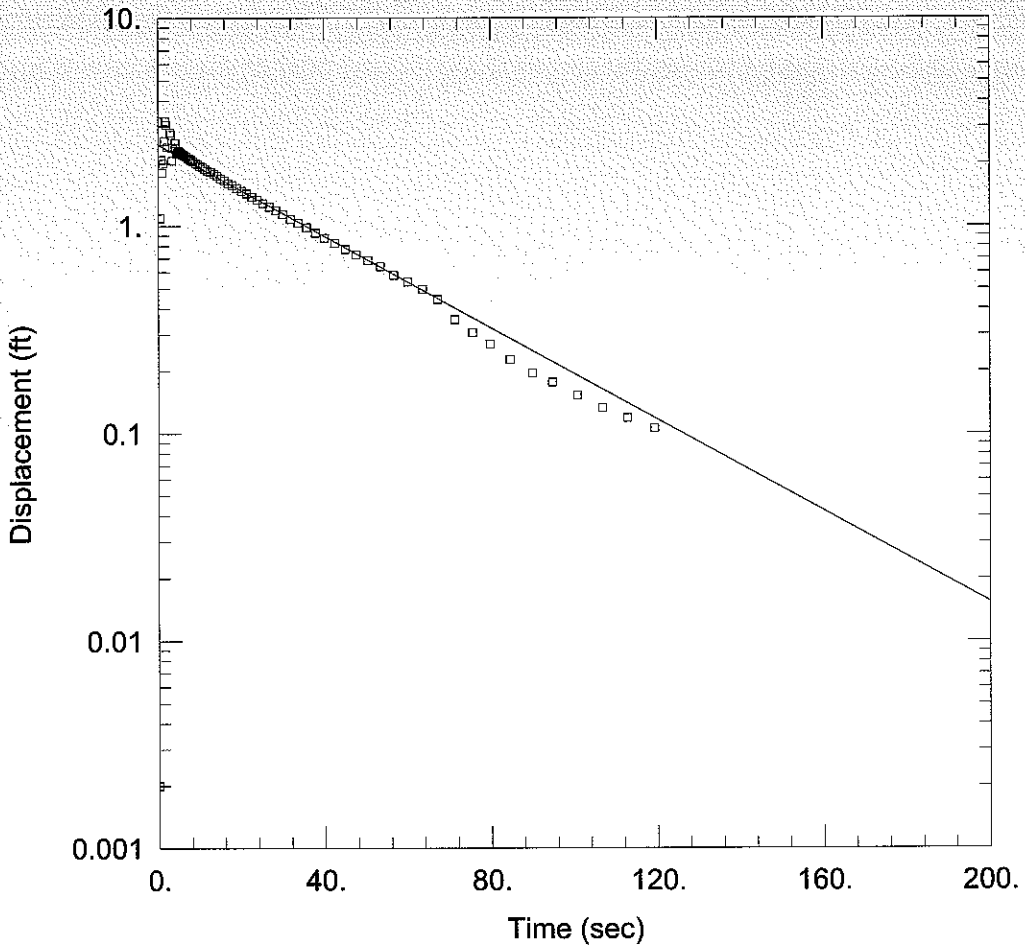
Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23 Out)

Initial Displacement: 2.309 ft
Total Well Penetration Depth: 26.95 ft
Casing Radius: 0.083 ft
Static Water Column Height: 26.95 ft
Screen Length: 16. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.002884 cm/sec
y0 = 3.272 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-25in (3).aqt
Date: 08/04/10 Time: 19:29:25

PROJECT INFORMATION

Company: Mactec
Client: Thermo King
Location: Lousiville, KY
Test Well: MW-25 In
Test Date: 6/4/10

AQUIFER DATA

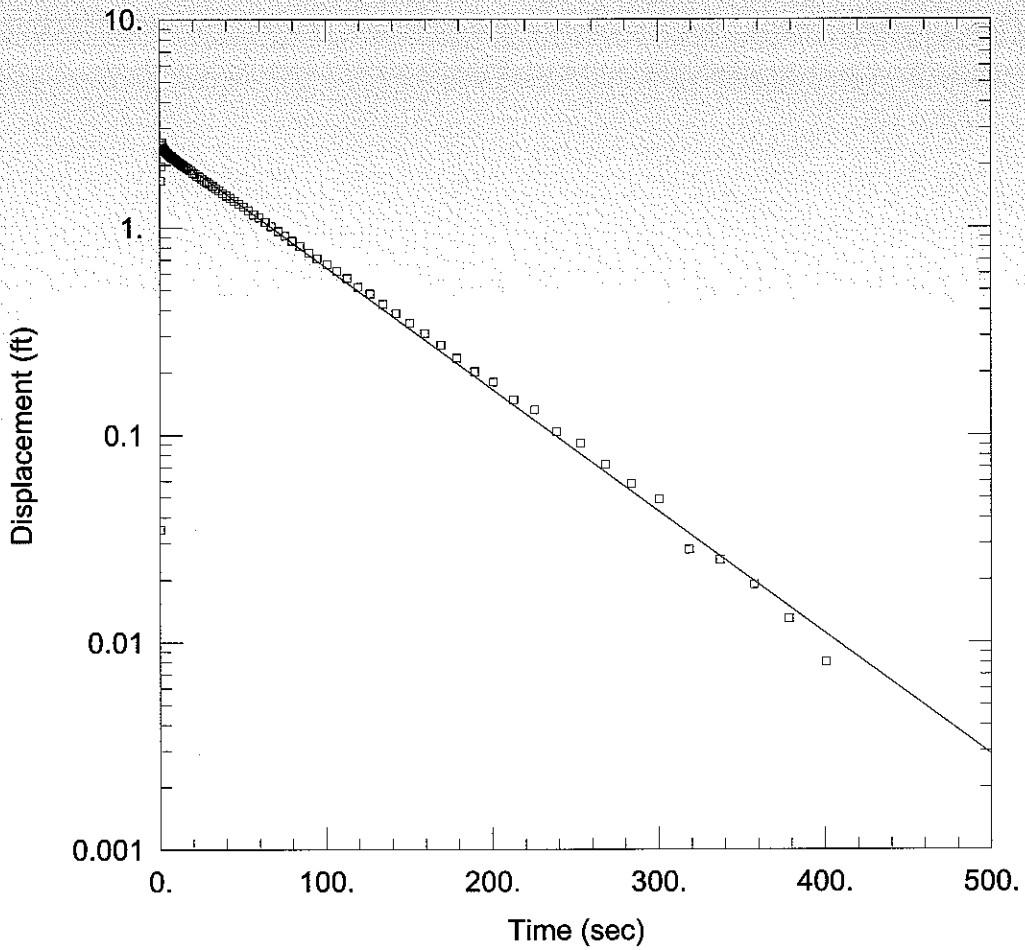
Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25 In)

Initial Displacement: 3.185 ft
Total Well Penetration Depth: 32.1 ft
Casing Radius: 0.083 ft
Static Water Column Height: 32.1 ft
Screen Length: 15. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.0005333 cm/sec y0 = 2.461 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-25out (3).aqt
Date: 08/04/10 Time: 19:25:14

PROJECT INFORMATION

Company: Mactec
Client: Thermo King
Location: Lousiville, KY
Test Well: MW-25 Out
Test Date: 6/4/10

AQUIFER DATA

Saturated Thickness: 99. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25 Out)

Initial Displacement: 2.57 ft
Total Well Penetration Depth: 32.1 ft
Casing Radius: 0.083 ft
Static Water Column Height: 32.1 ft
Screen Length: 15. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0002839 cm/sec y0 = 2.475 ft

APPENDIX H:

LABORATORY REPORTS FOR 2010 GROUNDWATER, SEEP, and SURFACE WATER SAMPLES INCLUDING LAB CERTICATION LETTERS

GROUNDWATER

Georgia Department of Natural Resources
Environmental Protection Division
2 Martin Luther King Jr. Drive SE, Suite 1152 East Tower, Atlanta, Georgia 30334-9000
Carol A. Couch PhD, Director
(404) 656-4713
FAX: (404) 651-5778

30 June 2010

Mr. Jeffrey C. Smith, Quality Assurance Specialist
TestAmerica Laboratories, Inc. North Canton
4101 Shuffel Street, NW
North Canton, OH 44720

RE: Laboratory Approval

Dear Mr. Smith:

I have received your June 29, 2010 communication requesting a renewal of your approval status. Please note that the Environmental Protection Division does not accredit or certify commercial laboratories (other than for drinking water) or issue certification, but rather we require commercial environmental laboratories to be approved under our Rules for Commercial Environmental Laboratories. You provided documentation that your laboratory is accredited by the State of Florida, Department of Health, Bureau of Laboratories (hereinafter, "Florida"), in accordance with NELAP. The accreditation is in the categories of Environmental Analyses for non-potable water and for solid and chemical materials.

After reviewing the information provided in your letter and the attached documentation from Florida, approval is granted under our Rules for Commercial Environmental Laboratories for those individual parameters within the categories of (1) Non-potable Water and (2) Solid and Chemical Materials, which you are certified by Florida. This approval is valid through June 30, 2011, which is the expiration date of your accreditation. To be approved after that date, your accreditation must be renewed.

I trust this response meets your needs; should you require further information, please do not hesitate to call me at (404) 656-3204.

Sincerely,

Ted V. Jackson, Manager
Environmental Emergency & Radiation Program
Georgia Environmental Protection Division

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 6122-09-0322,01

TK-LOUISVILLE

Lot #: A0F040435

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

TESTAMERICA LABORATORIES, INC.

Alesia M. Danford

Approved for release.
Alesia M. Danford
Project Manager
6/23/2010 1:58 PM

Alesia M. Danford
Project Manager
alesia.danford@testamericainc.com

June 23, 2010

CASE NARRATIVE

A0F040435

The following report contains the analytical results for thirty-four water samples and one quality control sample submitted to TestAmerica North Canton by MACTEC Engineering & Consulting, Inc. from the TK-Louisville Site, project number 6122-09-0322,01. The samples were received June 04, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on June 07, 2010, Terrell Parker and Rhonda Quinn on June 10, 2010, and Terrell Parker and Rhonda Quinn on June 20, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the reporting limit.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Alesia M. Danford, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 0.7°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

There were no client requested Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples in batch(es) 0166410 and 0168150. Therefore, the laboratory has included a Laboratory Control Sample Duplicate (LCSD) in the QC batch. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system.

Result concentration exceeds the calibration range. Refer to the sample report pages for the affected compound(s) flagged with "E".

Sample(s) MW-14 PDB, MW-14 PURGE, MW-19 PDB, MW-19 PURGED, MW-19 PURGEDMSD, MW-19 PURGEDMS, and SEEP C had elevated reporting limits due to matrix interferences.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A0F040435

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-5 PDB 06/01/10 17:10 003				
1,1-Dichloroethene	8.9	8.0	ug/L	SW846 8260B
Trichloroethene	210	8.0	ug/L	SW846 8260B
MW-7 PDB 06/01/10 16:37 004				
Chloroform	4.1	1.0	ug/L	SW846 8260B
MW-1 PDB 06/01/10 15:50 006				
Chloroform	4.9	1.0	ug/L	SW846 8260B
MW-8 PDB 06/01/10 16:10 007				
Chloroform	1.0	1.0	ug/L	SW846 8260B
MW-2 PDB 06/01/10 14:42 008				
Chloroform	2.1	1.0	ug/L	SW846 8260B
MW-6 PDB 06/01/10 14:22 011				
Chloroform	1.2	1.0	ug/L	SW846 8260B
MW-20 PDB 06/01/10 13:47 012				
cis-1,2-Dichloroethene	150	5.0	ug/L	SW846 8260B
Vinyl chloride	15	5.0	ug/L	SW846 8260B
MW-3 PDB 06/02/10 08:12 013				
Chloroform	2.3	1.0	ug/L	SW846 8260B
Trichloroethene	1.6	1.0	ug/L	SW846 8260B
MW-19 PDB 06/02/10 09:00 015				
1,1-Dichloroethene	82	56	ug/L	SW846 8260B
Trichloroethene	1700	56	ug/L	SW846 8260B
1,1-Dichloroethene	100	56	ug/L	SW846 8260B
Trichloroethene	1900	56	ug/L	SW846 8260B

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EXECUTIVE SUMMARY - Detection Highlights

A0F040435

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-14 PDB 06/02/10 09:15 016				
cis-1,2-Dichloroethene	370	120	ug/L	SW846 8260B
Trichloroethene	3500	120	ug/L	SW846 8260B
cis-1,2-Dichloroethene	320	25	ug/L	SW846 8260B
1,1-Dichloroethene	57	25	ug/L	SW846 8260B
Trichloroethene	3000 E	25	ug/L	SW846 8260B
MW-10 PDB 06/02/10 09:48 017				
Chloroform	1.8	1.0	ug/L	SW846 8260B
Trichloroethene	3.4	1.0	ug/L	SW846 8260B
MW-5 PURGED 06/02/10 16:22 026				
1,1-Dichloroethene	22	8.0	ug/L	SW846 8260B
Trichloroethene	250	8.0	ug/L	SW846 8260B
MW-20 PURGED 06/02/10 17:30 027				
cis-1,2-Dichloroethene	170	5.7	ug/L	SW846 8260B
MANSON BRANCH #2 06/02/10 17:50 029				
cis-1,2-Dichloroethene	180	50	ug/L	SW846 8260B
1,1-Dichloroethene	160	50	ug/L	SW846 8260B
1,1,1-Trichloroethane	61	50	ug/L	SW846 8260B
Trichloroethene	1700	50	ug/L	SW846 8260B
SEEP H 06/03/10 14:25 030				
cis-1,2-Dichloroethene	63	2.0	ug/L	SW846 8260B
1,1-Dichloroethene	12	2.0	ug/L	SW846 8260B
Trichloroethene	41	2.0	ug/L	SW846 8260B
MW-10 PURGE 06/03/10 10:00 031				
Chloroform	1.9	1.0	ug/L	SW846 8260B
Trichloroethene	2.8	1.0	ug/L	SW846 8260B
MW-3 PURGED 06/03/10 11:25 032				
Chloroform	2.3	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	1.7	1.0	ug/L	SW846 8260B
Trichloroethene	2.4	1.0	ug/L	SW846 8260B

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EXECUTIVE SUMMARY - Detection Highlights

A0F040435

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-14 PURGE 06/03/10 13:15 033				
cis-1,2-Dichloroethene	380	140	ug/L	SW846 8260B
Trichloroethene	3600	140	ug/L	SW846 8260B
cis-1,2-Dichloroethene	330	29	ug/L	SW846 8260B
1,1-Dichloroethene	58	29	ug/L	SW846 8260B
Trichloroethene	3200 E	29	ug/L	SW846 8260B
MW-19 PURGED 06/03/10 13:45 034				
Trichloroethene	5800	200	ug/L	SW846 8260B
1,1-Dichloroethene	72	40	ug/L	SW846 8260B
Trichloroethene	5800 E	40	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A0F040435

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B
Volatile Organics by GC/MS SIM	SW846 8260B SIM

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

A0F040435

ANALYTICAL METHOD	ANALYST	ANALYST ID
SW846 8260B	Larry R. Williams	001644
SW846 8260B	Richard J. Quayle	001904
SW846 8260B SIM	Richard J. Quayle	001904

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0F040435

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L2F43	001	MW-22 PDB	06/01/10	15:35
L2F5C	002	MW-24 PDB	06/01/10	16:58
L2F5D	003	MW-5 PDB	06/01/10	17:10
L2F5E	004	MW-7 PDB	06/01/10	16:37
L2F5H	005	MW-9 PDB	06/01/10	15:17
L2F5J	006	MW-1 PDB	06/01/10	15:50
L2F5M	007	MW-8 PDB	06/01/10	16:10
L2F5N	008	MW-2 PDB	06/01/10	14:42
L2F5P	009	MW-23 PDB	06/01/10	15:02
L2F5R	010	MW-21 PDB	06/01/10	16:25
L2F5T	011	MW-6 PDB	06/01/10	14:22
L2F5W	012	MW-20 PDB	06/01/10	13:47
L2F51	013	MW-3 PDB	06/02/10	08:12
L2F53	014	MW-4 PDB	06/02/10	08:38
L2F55	015	MW-19 PDB	06/02/10	09:00
L2F57	016	MW-14 PDB	06/02/10	09:15
L2F6A	017	MW-10 PDB	06/02/10	09:48
L2F6E	018	MW-18 PDB	06/02/10	10:15
L2F6F	019	MW-16 PDB	06/02/10	10:25
L2F6G	020	MW-17 PDB	06/02/10	10:40
L2F6L	021	MW-15 PDB	06/02/10	10:53
L2F6M	022	MW-11 PDB	06/02/10	11:25
L2F6N	023	MW-12 PDB	06/02/10	11:40
L2F6P	024	MW-13 PDB	06/02/10	12:00
L2F6Q	025	TRIP BLANK 060110	06/01/10	12:00
L2F6T	026	MW-5 PURGED	06/02/10	16:22
L2F6V	027	MW-20 PURGED	06/02/10	17:30
L2F6W	028	SEEP C	06/02/10	17:33
L2F60	029	MANSON BRANCH #2	06/02/10	17:50
L2F61	030	SEEP H	06/03/10	14:25
L2F62	031	MW-10 PURGE	06/03/10	10:00
L2F63	032	MW-3 PURGED	06/03/10	11:25
L2F64	033	MW-14 PURGE	06/03/10	13:15
L2F66	034	MW-19 PURGED	06/03/10	13:45
L2F7A	035	SEEP L	06/03/10	16:00

(Continued on next page)

SAMPLE SUMMARY

A0F040435

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-22 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-001 **Work Order #...:** L2F431AA **Matrix.....:** WG
Date Sampled...: 06/01/10 15:35 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0166410
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-22 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-001 **Work Order #...:** L2F431AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	105	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-24 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-002 **Work Order #...:** L2F5C1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 16:58 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0166410
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-24 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-002 **Work Order #...:** L2F5C1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	103	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-5 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-003 **Work Order #...:** L2F5D1AC **Matrix.....:** WG
Date Sampled...: 06/01/10 17:10 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 8
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	8.0	ug/L	1.0
Benzene	ND	8.0	ug/L	1.0
Bromochloromethane	ND	8.0	ug/L	2.3
Bromodichloromethane	ND	8.0	ug/L	1.2
Bromoform	ND	8.0	ug/L	5.1
Bromomethane	ND	8.0	ug/L	3.3
n-Butylbenzene	ND	8.0	ug/L	0.96
sec-Butylbenzene	ND	8.0	ug/L	1.0
tert-Butylbenzene	ND	8.0	ug/L	1.0
Carbon tetrachloride	ND	8.0	ug/L	1.0
Chlorobenzene	ND	8.0	ug/L	1.2
Chlorodibromomethane	ND	8.0	ug/L	1.4
Chloroethane	ND	8.0	ug/L	2.3
Chloroform	ND	8.0	ug/L	1.3
Chloromethane	ND	8.0	ug/L	2.4
2-Chlorotoluene	ND	8.0	ug/L	0.88
4-Chlorotoluene	ND	8.0	ug/L	1.4
1,2-Dibromo-3-chloropropane (DBCP)	ND	16	ug/L	5.4
1,2-Dibromoethane	ND	8.0	ug/L	1.9
Dibromomethane	ND	8.0	ug/L	2.2
1,2-Dichlorobenzene	ND	8.0	ug/L	1.0
1,3-Dichlorobenzene	ND	8.0	ug/L	1.1
1,4-Dichlorobenzene	ND	8.0	ug/L	1.0
Dichlorodifluoromethane	ND	8.0	ug/L	2.5
1,1-Dichloroethane	ND	8.0	ug/L	1.2
1,2-Dichloroethane	ND	8.0	ug/L	1.8
cis-1,2-Dichloroethene	ND	8.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	8.0	ug/L	1.5
1,1-Dichloroethene	**8.9**	**8.0**	**ug/L**	**1.5**
1,2-Dichloropropane	ND	8.0	ug/L	1.4
1,3-Dichloropropane	ND	8.0	ug/L	1.3
2,2-Dichloropropane	ND	8.0	ug/L	1.0
1,1-Dichloropropene	ND	8.0	ug/L	1.0
1,4-Dioxane	ND	400	ug/L	150
Ethylbenzene	ND	8.0	ug/L	1.4
Hexachlorobutadiene	ND	8.0	ug/L	2.4

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-5 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-003 **Work Order #...:** L2F5D1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	8.0	ug/L	0.96
Methylene chloride	ND	8.0	ug/L	2.6
Naphthalene	ND	8.0	ug/L	1.9
n-Propylbenzene	ND	8.0	ug/L	1.1
Styrene	ND	8.0	ug/L	0.88
1,1,1,2-Tetrachloroethane	ND	8.0	ug/L	1.8
1,1,2,2-Tetrachloroethane	ND	8.0	ug/L	1.4
Tetrachloroethene	ND	8.0	ug/L	2.3
Toluene	ND	8.0	ug/L	1.0
1,2,3-Trichlorobenzene	ND	8.0	ug/L	1.4
1,2,4-Trichloro-benzene	ND	8.0	ug/L	1.2
1,1,1-Trichloroethane	ND	8.0	ug/L	1.8
1,1,2-Trichloroethane	ND	8.0	ug/L	2.2
Trichloroethene	**210**	**8.0**	**ug/L**	**1.4**
Trichlorofluoromethane	ND	8.0	ug/L	1.7
1,2,3-Trichloropropane	ND	8.0	ug/L	3.4
1,2,4-Trimethylbenzene	ND	8.0	ug/L	0.96
1,3,5-Trimethylbenzene	ND	8.0	ug/L	0.77
Vinyl chloride	ND	8.0	ug/L	1.8
m-Xylene & p-Xylene	ND	16	ug/L	1.9
o-Xylene	ND	8.0	ug/L	1.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-5 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-003 **Work Order #...:** L2F5D1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 17:10 **Date Received..:** 06/04/10
Prep Date.....: 06/15/10 **Analysis Date..:** 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	2.0	ug/L	0.33

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	100	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-7 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-004 **Work Order #...:** L2F5E1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 16:37 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0166410
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**4.1**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-7 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-004 **Work Order #...:** L2F5E1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	104	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-9 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-005 **Work Order #...:** L2F5H1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 15:17 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0166410
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-9 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-005 **Work Order #...:** L2F5H1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	104	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-1 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-006 **Work Order #...:** L2F5J1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 15:50 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0166410
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**4.9**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-1 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-006 **Work Order #...:** L2F5J1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	104	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-8 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-007 **Work Order #...:** L2F5M1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 16:10 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0166410
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**1.0**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-8 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-007 **Work Order #...:** L2F5M1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	103	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-2 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-008 **Work Order #...:** L2F5N1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 14:42 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0166410
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**2.1**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-2 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-008 **Work Order #...:** L2F5N1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-23 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-009 **Work Order #...:** L2F5P1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 15:02 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-23 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-009 **Work Order #...:** L2F5P1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-21 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-010 **Work Order #...:** L2F5R1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 16:25 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-21 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-010 **Work Order #...:** L2F5R1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-6 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-011 **Work Order #...:** L2F5T1AA **Matrix.....:** WG
Date Sampled...: 06/01/10 14:22 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**1.2**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-6 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-011 **Work Order #...:** L2F5T1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	103	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-20 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-012 **Work Order #...:** L2F5W1AC **Matrix.....:** WG
Date Sampled...: 06/01/10 13:47 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 5
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	5.0	ug/L	0.65
Benzene	ND	5.0	ug/L	0.65
Bromochloromethane	ND	5.0	ug/L	1.4
Bromodichloromethane	ND	5.0	ug/L	0.75
Bromoform	ND	5.0	ug/L	3.2
Bromomethane	ND	5.0	ug/L	2.0
n-Butylbenzene	ND	5.0	ug/L	0.60
sec-Butylbenzene	ND	5.0	ug/L	0.65
tert-Butylbenzene	ND	5.0	ug/L	0.65
Carbon tetrachloride	ND	5.0	ug/L	0.65
Chlorobenzene	ND	5.0	ug/L	0.75
Chlorodibromomethane	ND	5.0	ug/L	0.90
Chloroethane	ND	5.0	ug/L	1.4
Chloroform	ND	5.0	ug/L	0.80
Chloromethane	ND	5.0	ug/L	1.5
2-Chlorotoluene	ND	5.0	ug/L	0.55
4-Chlorotoluene	ND	5.0	ug/L	0.90
1,2-Dibromo-3-chloropropane (DBCP)	ND	10	ug/L	3.4
1,2-Dibromoethane	ND	5.0	ug/L	1.2
Dibromomethane	ND	5.0	ug/L	1.4
1,2-Dichlorobenzene	ND	5.0	ug/L	0.65
1,3-Dichlorobenzene	ND	5.0	ug/L	0.70
1,4-Dichlorobenzene	ND	5.0	ug/L	0.65
Dichlorodifluoromethane	ND	5.0	ug/L	1.6
1,1-Dichloroethane	ND	5.0	ug/L	0.75
1,2-Dichloroethane	ND	5.0	ug/L	1.1
cis-1,2-Dichloroethene	**150**	**5.0**	**ug/L**	**0.85**
trans-1,2-Dichloroethene	ND	5.0	ug/L	0.95
1,1-Dichloroethene	ND	5.0	ug/L	0.95
1,2-Dichloropropane	ND	5.0	ug/L	0.90
1,3-Dichloropropane	ND	5.0	ug/L	0.80
2,2-Dichloropropane	ND	5.0	ug/L	0.65
1,1-Dichloropropene	ND	5.0	ug/L	0.65
1,4-Dioxane	ND	250	ug/L	95
Ethylbenzene	ND	5.0	ug/L	0.85
Hexachlorobutadiene	ND	5.0	ug/L	1.5

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-20 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-012 **Work Order #...:** L2F5W1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	5.0	ug/L	0.60
Methylene chloride	ND	5.0	ug/L	1.6
Naphthalene	ND	5.0	ug/L	1.2
n-Propylbenzene	ND	5.0	ug/L	0.70
Styrene	ND	5.0	ug/L	0.55
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	1.2
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	0.90
Tetrachloroethene	ND	5.0	ug/L	1.4
Toluene	ND	5.0	ug/L	0.65
1,2,3-Trichlorobenzene	ND	5.0	ug/L	0.85
1,2,4-Trichloro-benzene	ND	5.0	ug/L	0.75
1,1,1-Trichloroethane	ND	5.0	ug/L	1.1
1,1,2-Trichloroethane	ND	5.0	ug/L	1.4
Trichloroethene	ND	5.0	ug/L	0.85
Trichlorofluoromethane	ND	5.0	ug/L	1.0
1,2,3-Trichloropropane	ND	5.0	ug/L	2.2
1,2,4-Trimethylbenzene	ND	5.0	ug/L	0.60
1,3,5-Trimethylbenzene	ND	5.0	ug/L	0.48
Vinyl chloride	**15**	**5.0**	**ug/L**	**1.1**
m-Xylene & p-Xylene	ND	10	ug/L	1.2
o-Xylene	ND	5.0	ug/L	0.70

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-20 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-012	Work Order #...: L2F5W1AA	Matrix.....: WG	
Date Sampled...: 06/01/10 13:47	Date Received..: 06/04/10		
Prep Date.....: 06/15/10	Analysis Date..: 06/15/10		
Prep Batch #...: 0168150			
Dilution Factor: 1			
Analyst ID.....: 001904	Instrument ID..: UX16		
	Method.....: SW846 8260B SIM		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	2.0	ug/L	0.33

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	95	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-3 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-013 **Work Order #...:** L2F511AC **Matrix.....:** WG
Date Sampled...: 06/02/10 08:12 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**2.3**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-3 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-013 Work Order #...: L2F511AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	**1.6**	**1.0**	**ug/L**	**0.17**
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-3 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-013 Work Order #...: L2F511AA Matrix.....: WG
Date Sampled...: 06/02/10 08:12 Date Received..: 06/04/10
Prep Date.....: 06/15/10 Analysis Date..: 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 1
Analyst ID.....: 001904 Instrument ID..: UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	2.0	ug/L	0.33

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	99	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-4 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-014 **Work Order #...:** L2F531AA **Matrix.....:** WG
Date Sampled...: 06/02/10 08:38 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-4 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-014 **Work Order #...:** L2F531AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-015 **Work Order #...:** L2F551AC **Matrix.....:** WG
Date Sampled...: 06/02/10 09:00 **Date Received..:** 06/04/10
Prep Date.....: 06/04/10 **Analysis Date..:** 06/04/10
Prep Batch #...: 0158112
Dilution Factor: 55.56
Analyst ID.....: 001644 **Instrument ID..:** UX11
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	56	ug/L	7.2
Benzene	ND	56	ug/L	7.2
Bromochloromethane	ND	56	ug/L	16
Bromodichloromethane	ND	56	ug/L	8.3
Bromoform	ND	56	ug/L	36
Bromomethane	ND	56	ug/L	23
n-Butylbenzene	ND	56	ug/L	6.7
sec-Butylbenzene	ND	56	ug/L	7.2
tert-Butylbenzene	ND	56	ug/L	7.2
Carbon tetrachloride	ND	56	ug/L	7.2
Chlorobenzene	ND	56	ug/L	8.3
Chlorodibromomethane	ND	56	ug/L	10
Chloroethane	ND	56	ug/L	16
Chloroform	ND	56	ug/L	8.9
Chloromethane	ND	56	ug/L	17
2-Chlorotoluene	ND	56	ug/L	6.1
4-Chlorotoluene	ND	56	ug/L	10
1,2-Dibromo-3-chloropropane (DBCP)	ND	110	ug/L	37
1,2-Dibromoethane	ND	56	ug/L	13
Dibromomethane	ND	56	ug/L	16
1,2-Dichlorobenzene	ND	56	ug/L	7.2
1,3-Dichlorobenzene	ND	56	ug/L	7.8
1,4-Dichlorobenzene	ND	56	ug/L	7.2
Dichlorodifluoromethane	ND	56	ug/L	17
1,1-Dichloroethane	ND	56	ug/L	8.3
1,2-Dichloroethane	ND	56	ug/L	12
cis-1,2-Dichloroethene	ND	56	ug/L	9.4
trans-1,2-Dichloroethene	ND	56	ug/L	11
1,1-Dichloroethene	**82**	**56**	**ug/L**	**11**
1,2-Dichloropropane	ND	56	ug/L	10
1,3-Dichloropropane	ND	56	ug/L	8.9
2,2-Dichloropropane	ND	56	ug/L	7.2
1,1-Dichloropropene	ND	56	ug/L	7.2
1,4-Dioxane	ND	2800	ug/L	1100
Ethylbenzene	ND	56	ug/L	9.4
Hexachlorobutadiene	ND	56	ug/L	17

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-015 **Work Order #...:** L2F551AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	56	ug/L	6.7
Methylene chloride	ND	56	ug/L	18
Naphthalene	ND	56	ug/L	13
n-Propylbenzene	ND	56	ug/L	7.8
Styrene	ND	56	ug/L	6.1
1,1,1,2-Tetrachloroethane	ND	56	ug/L	13
1,1,2,2-Tetrachloroethane	ND	56	ug/L	10
Tetrachloroethene	ND	56	ug/L	16
Toluene	ND	56	ug/L	7.2
1,2,3-Trichlorobenzene	ND	56	ug/L	9.4
1,2,4-Trichloro-benzene	ND	56	ug/L	8.3
1,1,1-Trichloroethane	ND	56	ug/L	12
1,1,2-Trichloroethane	ND	56	ug/L	15
Trichloroethene	**1700**	**56**	**ug/L**	**9.4**
Trichlorofluoromethane	ND	56	ug/L	12
1,2,3-Trichloropropane	ND	56	ug/L	24
1,2,4-Trimethylbenzene	ND	56	ug/L	6.7
1,3,5-Trimethylbenzene	ND	56	ug/L	5.3
Vinyl chloride	ND	56	ug/L	12
m-Xylene & p-Xylene	ND	110	ug/L	13
o-Xylene	ND	56	ug/L	7.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	82	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-015 **Work Order #...:** L2F552AC **Matrix.....:** WG
Date Sampled...: 06/02/10 09:00 **Date Received..:** 06/04/10
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 55.56
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	56	ug/L	7.2
Benzene	ND	56	ug/L	7.2
Bromochloromethane	ND	56	ug/L	16
Bromodichloromethane	ND	56	ug/L	8.3
Bromoform	ND	56	ug/L	36
Bromomethane	ND	56	ug/L	23
n-Butylbenzene	ND	56	ug/L	6.7
sec-Butylbenzene	ND	56	ug/L	7.2
tert-Butylbenzene	ND	56	ug/L	7.2
Carbon tetrachloride	ND	56	ug/L	7.2
Chlorobenzene	ND	56	ug/L	8.3
Chlorodibromomethane	ND	56	ug/L	10
Chloroethane	ND	56	ug/L	16
Chloroform	ND	56	ug/L	8.9
Chloromethane	ND	56	ug/L	17
2-Chlorotoluene	ND	56	ug/L	6.1
4-Chlorotoluene	ND	56	ug/L	10
1,2-Dibromo-3-chloropropane (DBCP)	ND	110	ug/L	37
1,2-Dibromoethane	ND	56	ug/L	13
Dibromomethane	ND	56	ug/L	16
1,2-Dichlorobenzene	ND	56	ug/L	7.2
1,3-Dichlorobenzene	ND	56	ug/L	7.8
1,4-Dichlorobenzene	ND	56	ug/L	7.2
Dichlorodifluoromethane	ND	56	ug/L	17
1,1-Dichloroethane	ND	56	ug/L	8.3
1,2-Dichloroethane	ND	56	ug/L	12
cis-1,2-Dichloroethene	ND	56	ug/L	9.4
trans-1,2-Dichloroethene	ND	56	ug/L	11
1,1-Dichloroethene	**100**	**56**	**ug/L**	**11**
1,2-Dichloropropane	ND	56	ug/L	10
1,3-Dichloropropane	ND	56	ug/L	8.9
2,2-Dichloropropane	ND	56	ug/L	7.2
1,1-Dichloropropene	ND	56	ug/L	7.2
1,4-Dioxane	ND	2800	ug/L	1100
Ethylbenzene	ND	56	ug/L	9.4
Hexachlorobutadiene	ND	56	ug/L	17

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-015 **Work Order #...:** L2F552AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	56	ug/L	6.7
Methylene chloride	ND	56	ug/L	18
Naphthalene	ND	56	ug/L	13
n-Propylbenzene	ND	56	ug/L	7.8
Styrene	ND	56	ug/L	6.1
1,1,1,2-Tetrachloroethane	ND	56	ug/L	13
1,1,2,2-Tetrachloroethane	ND	56	ug/L	10
Tetrachloroethene	ND	56	ug/L	16
Toluene	ND	56	ug/L	7.2
1,2,3-Trichlorobenzene	ND	56	ug/L	9.4
1,2,4-Trichloro-benzene	ND	56	ug/L	8.3
1,1,1-Trichloroethane	ND	56	ug/L	12
1,1,2-Trichloroethane	ND	56	ug/L	15
Trichloroethene	**1900**	**56**	**ug/L**	**9.4**
Trichlorofluoromethane	ND	56	ug/L	12
1,2,3-Trichloropropane	ND	56	ug/L	24
1,2,4-Trimethylbenzene	ND	56	ug/L	6.7
1,3,5-Trimethylbenzene	ND	56	ug/L	5.3
Vinyl chloride	ND	56	ug/L	12
m-Xylene & p-Xylene	ND	110	ug/L	13
o-Xylene	ND	56	ug/L	7.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	102	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-015 Work Order #...: L2F551AA Matrix.....: WG
Date Sampled...: 06/02/10 09:00 Date Received..: 06/04/10
Prep Date.....: 06/15/10 Analysis Date..: 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 5.56
Analyst ID.....: 001904 Instrument ID..: UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	11	ug/L	1.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	99	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-016 **Work Order #...:** L2F571AC **Matrix.....:** WG
Date Sampled...: 06/02/10 09:15 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 125
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	120	ug/L	16
Benzene	ND	120	ug/L	16
Bromochloromethane	ND	120	ug/L	36
Bromodichloromethane	ND	120	ug/L	19
Bromoform	ND	120	ug/L	80
Bromomethane	ND	120	ug/L	51
n-Butylbenzene	ND	120	ug/L	15
sec-Butylbenzene	ND	120	ug/L	16
tert-Butylbenzene	ND	120	ug/L	16
Carbon tetrachloride	ND	120	ug/L	16
Chlorobenzene	ND	120	ug/L	19
Chlorodibromomethane	ND	120	ug/L	22
Chloroethane	ND	120	ug/L	36
Chloroform	ND	120	ug/L	20
Chloromethane	ND	120	ug/L	38
2-Chlorotoluene	ND	120	ug/L	14
4-Chlorotoluene	ND	120	ug/L	22
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	ug/L	84
1,2-Dibromoethane	ND	120	ug/L	30
Dibromomethane	ND	120	ug/L	35
1,2-Dichlorobenzene	ND	120	ug/L	16
1,3-Dichlorobenzene	ND	120	ug/L	18
1,4-Dichlorobenzene	ND	120	ug/L	16
Dichlorodifluoromethane	ND	120	ug/L	39
1,1-Dichloroethane	ND	120	ug/L	19
1,2-Dichloroethane	ND	120	ug/L	28
cis-1,2-Dichloroethene	**370**	**120**	**ug/L**	**21**
trans-1,2-Dichloroethene	ND	120	ug/L	24
1,1-Dichloroethene	ND	120	ug/L	24
1,2-Dichloropropane	ND	120	ug/L	22
1,3-Dichloropropane	ND	120	ug/L	20
2,2-Dichloropropane	ND	120	ug/L	16
1,1-Dichloropropene	ND	120	ug/L	16
1,4-Dioxane	ND	6200	ug/L	2400
Ethylbenzene	ND	120	ug/L	21
Hexachlorobutadiene	ND	120	ug/L	38

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-016 **Work Order #...:** L2F571AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	120	ug/L	15
Methylene chloride	ND	120	ug/L	41
Naphthalene	ND	120	ug/L	30
n-Propylbenzene	ND	120	ug/L	18
Styrene	ND	120	ug/L	14
1,1,1,2-Tetrachloroethane	ND	120	ug/L	29
1,1,2,2-Tetrachloroethane	ND	120	ug/L	22
Tetrachloroethene	ND	120	ug/L	36
Toluene	ND	120	ug/L	16
1,2,3-Trichlorobenzene	ND	120	ug/L	21
1,2,4-Trichloro-benzene	ND	120	ug/L	19
1,1,1-Trichloroethane	ND	120	ug/L	28
1,1,2-Trichloroethane	ND	120	ug/L	34
Trichloroethene	**3500**	**120**	**ug/L**	**21**
Trichlorofluoromethane	ND	120	ug/L	26
1,2,3-Trichloropropane	ND	120	ug/L	54
1,2,4-Trimethylbenzene	ND	120	ug/L	15
1,3,5-Trimethylbenzene	ND	120	ug/L	12
Vinyl chloride	ND	120	ug/L	28
m-Xylene & p-Xylene	ND	250	ug/L	30
o-Xylene	ND	120	ug/L	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-016 **Work Order #...:** L2F572AC **Matrix.....:** WG
Date Sampled...: 06/02/10 09:15 **Date Received..:** 06/04/10
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 25
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	25	ug/L	3.2
Benzene	ND	25	ug/L	3.2
Bromochloromethane	ND	25	ug/L	7.2
Bromodichloromethane	ND	25	ug/L	3.8
Bromoform	ND	25	ug/L	16
Bromomethane	ND	25	ug/L	10
n-Butylbenzene	ND	25	ug/L	3.0
sec-Butylbenzene	ND	25	ug/L	3.2
tert-Butylbenzene	ND	25	ug/L	3.2
Carbon tetrachloride	ND	25	ug/L	3.2
Chlorobenzene	ND	25	ug/L	3.8
Chlorodibromomethane	ND	25	ug/L	4.5
Chloroethane	ND	25	ug/L	7.2
Chloroform	ND	25	ug/L	4.0
Chloromethane	ND	25	ug/L	7.5
2-Chlorotoluene	ND	25	ug/L	2.8
4-Chlorotoluene	ND	25	ug/L	4.5
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	ug/L	17
1,2-Dibromoethane	ND	25	ug/L	6.0
Dibromomethane	ND	25	ug/L	7.0
1,2-Dichlorobenzene	ND	25	ug/L	3.2
1,3-Dichlorobenzene	ND	25	ug/L	3.5
1,4-Dichlorobenzene	ND	25	ug/L	3.2
Dichlorodifluoromethane	ND	25	ug/L	7.8
1,1-Dichloroethane	ND	25	ug/L	3.8
1,2-Dichloroethane	ND	25	ug/L	5.5
cis-1,2-Dichloroethene	**320**	**25**	**ug/L**	**4.2**
trans-1,2-Dichloroethene	ND	25	ug/L	4.8
1,1-Dichloroethene	**57**	**25**	**ug/L**	**4.8**
1,2-Dichloropropane	ND	25	ug/L	4.5
1,3-Dichloropropane	ND	25	ug/L	4.0
2,2-Dichloropropane	ND	25	ug/L	3.2
1,1-Dichloropropene	ND	25	ug/L	3.2
1,4-Dioxane	ND	1200	ug/L	480
Ethylbenzene	ND	25	ug/L	4.2
Hexachlorobutadiene	ND	25	ug/L	7.5

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-016 Work Order #...: L2F572AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	25	ug/L	3.0
Methylene chloride	ND	25	ug/L	8.2
Naphthalene	ND	25	ug/L	6.0
n-Propylbenzene	ND	25	ug/L	3.5
Styrene	ND	25	ug/L	2.8
1,1,1,2-Tetrachloroethane	ND	25	ug/L	5.8
1,1,2,2-Tetrachloroethane	ND	25	ug/L	4.5
Tetrachloroethene	ND	25	ug/L	7.2
Toluene	ND	25	ug/L	3.2
1,2,3-Trichlorobenzene	ND	25	ug/L	4.2
1,2,4-Trichloro-benzene	ND	25	ug/L	3.8
1,1,1-Trichloroethane	ND	25	ug/L	5.5
1,1,2-Trichloroethane	ND	25	ug/L	6.8
Trichloroethene	**3000 E**	**25**	**ug/L**	**4.2**
Trichlorofluoromethane	ND	25	ug/L	5.2
1,2,3-Trichloropropane	ND	25	ug/L	11
1,2,4-Trimethylbenzene	ND	25	ug/L	3.0
1,3,5-Trimethylbenzene	ND	25	ug/L	2.4
Vinyl chloride	ND	25	ug/L	5.5
m-Xylene & p-Xylene	ND	50	ug/L	6.0
o-Xylene	ND	25	ug/L	3.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-016 **Work Order #...:** L2F571AA **Matrix.....:** WG
Date Sampled...: 06/02/10 09:15 **Date Received..:** 06/04/10
Prep Date.....: 06/15/10 **Analysis Date..:** 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 12.5
Analyst ID.....: 001904 **Instrument ID..:** UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	25	ug/L	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	97	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-10 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-017 **Work Order #...:** L2F6A1AC **Matrix.....:** WG
Date Sampled...: 06/02/10 09:48 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**1.8**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-10 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-017 **Work Order #...:** L2F6A1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	**3.4**	**1.0**	**ug/L**	**0.17**
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-10 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-017 Work Order #...: L2F6A1AA Matrix.....: WG
Date Sampled...: 06/02/10 09:48 Date Received..: 06/04/10
Prep Date.....: 06/15/10 Analysis Date..: 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 1
Analyst ID.....: 001904 Instrument ID..: UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	2.0	ug/L	0.33

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-18 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-018 **Work Order #...:** L2F6E1AA **Matrix.....:** WG
Date Sampled...: 06/02/10 10:15 **Date Received..:** 06/04/10
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-18 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-018 **Work Order #...:** L2F6E1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-16 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-019 Work Order #...: L2F6F1AA Matrix.....: WG
Date Sampled...: 06/02/10 10:25 Date Received..: 06/04/10
Prep Date.....: 06/10/10 Analysis Date..: 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 Instrument ID..: UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-16 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-019 **Work Order #...:** L2F6F1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-17 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-020 **Work Order #...:** L2F6G1AA **Matrix.....:** WG
Date Sampled...: 06/02/10 10:40 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-17 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-020 **Work Order #...:** L2F6G1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-15 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-021 **Work Order #...:** L2F6L1AA **Matrix.....:** WG
Date Sampled...: 06/02/10 10:53 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-15 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-021 **Work Order #...:** L2F6L1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-11 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-022 **Work Order #...:** L2F6M1AA **Matrix.....:** WG
Date Sampled...: 06/02/10 11:25 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-11 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-022 Work Order #...: L2F6M1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-12 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-023 **Work Order #...:** L2F6N1AA **Matrix.....:** WG
Date Sampled...: 06/02/10 11:40 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-12 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-023 Work Order #...: L2F6N1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-13 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-024 **Work Order #...:** L2F6P1AA **Matrix.....:** WG
Date Sampled...: 06/02/10 12:00 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-13 PDB

GC/MS Volatiles

Lot-Sample #...: A0F040435-024 Work Order #...: L2F6P1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK 060110

GC/MS Volatiles

Lot-Sample #...: A0F040435-025 **Work Order #...:** L2F6Q1AA **Matrix.....:** WQ
Date Sampled...: 06/01/10 12:00 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK 060110

GC/MS Volatiles

Lot-Sample #...: A0F040435-025 Work Order #...: L2F6Q1AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-5 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-026 **Work Order #...:** L2F6T1AC **Matrix.....:** WG
Date Sampled...: 06/02/10 16:22 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 8
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	8.0	ug/L	1.0
Benzene	ND	8.0	ug/L	1.0
Bromochloromethane	ND	8.0	ug/L	2.3
Bromodichloromethane	ND	8.0	ug/L	1.2
Bromoform	ND	8.0	ug/L	5.1
Bromomethane	ND	8.0	ug/L	3.3
n-Butylbenzene	ND	8.0	ug/L	0.96
sec-Butylbenzene	ND	8.0	ug/L	1.0
tert-Butylbenzene	ND	8.0	ug/L	1.0
Carbon tetrachloride	ND	8.0	ug/L	1.0
Chlorobenzene	ND	8.0	ug/L	1.2
Chlorodibromomethane	ND	8.0	ug/L	1.4
Chloroethane	ND	8.0	ug/L	2.3
Chloroform	ND	8.0	ug/L	1.3
Chloromethane	ND	8.0	ug/L	2.4
2-Chlorotoluene	ND	8.0	ug/L	0.88
4-Chlorotoluene	ND	8.0	ug/L	1.4
1,2-Dibromo-3-chloropropane (DBCP)	ND	16	ug/L	5.4
1,2-Dibromoethane	ND	8.0	ug/L	1.9
Dibromomethane	ND	8.0	ug/L	2.2
1,2-Dichlorobenzene	ND	8.0	ug/L	1.0
1,3-Dichlorobenzene	ND	8.0	ug/L	1.1
1,4-Dichlorobenzene	ND	8.0	ug/L	1.0
Dichlorodifluoromethane	ND	8.0	ug/L	2.5
1,1-Dichloroethane	ND	8.0	ug/L	1.2
1,2-Dichloroethane	ND	8.0	ug/L	1.8
cis-1,2-Dichloroethene	ND	8.0	ug/L	1.4
trans-1,2-Dichloroethene	ND	8.0	ug/L	1.5
1,1-Dichloroethene	**22**	**8.0**	**ug/L**	**1.5**
1,2-Dichloropropane	ND	8.0	ug/L	1.4
1,3-Dichloropropane	ND	8.0	ug/L	1.3
2,2-Dichloropropane	ND	8.0	ug/L	1.0
1,1-Dichloropropene	ND	8.0	ug/L	1.0
1,4-Dioxane	ND	400	ug/L	150
Ethylbenzene	ND	8.0	ug/L	1.4
Hexachlorobutadiene	ND	8.0	ug/L	2.4

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-5 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-026 Work Order #...: L2E6T1AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	8.0	ug/L	0.96
Methylene chloride	ND	8.0	ug/L	2.6
Naphthalene	ND	8.0	ug/L	1.9
n-Propylbenzene	ND	8.0	ug/L	1.1
Styrene	ND	8.0	ug/L	0.88
1,1,1,2-Tetrachloroethane	ND	8.0	ug/L	1.8
1,1,2,2-Tetrachloroethane	ND	8.0	ug/L	1.4
Tetrachloroethene	ND	8.0	ug/L	2.3
Toluene	ND	8.0	ug/L	1.0
1,2,3-Trichlorobenzene	ND	8.0	ug/L	1.4
1,2,4-Trichloro-benzene	ND	8.0	ug/L	1.2
1,1,1-Trichloroethane	ND	8.0	ug/L	1.8
1,1,2-Trichloroethane	ND	8.0	ug/L	2.2
Trichloroethene	**250**	**8.0**	**ug/L**	**1.4**
Trichlorofluoromethane	ND	8.0	ug/L	1.7
1,2,3-Trichloropropane	ND	8.0	ug/L	3.4
1,2,4-Trimethylbenzene	ND	8.0	ug/L	0.96
1,3,5-Trimethylbenzene	ND	8.0	ug/L	0.77
Vinyl chloride	ND	8.0	ug/L	1.8
m-Xylene & p-Xylene	ND	16	ug/L	1.9
o-Xylene	ND	8.0	ug/L	1.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-5 PURGED

GC/MS Volatiles

Lot-Sample #...: A0E040435-026 **Work Order #...:** L2F6T1AA **Matrix.....:** WG
Date Sampled...: 06/02/10 16:22 **Date Received..:** 06/04/10
Prep Date.....: 06/15/10 **Analysis Date..:** 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	2.0	ug/L	0.33

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	99	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-20 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-027 **Work Order #...:** L2F6V1AC **Matrix.....:** WG
Date Sampled...: 06/02/10 17:30 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 5.71
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	5.7	ug/L	0.74
Benzene	ND	5.7	ug/L	0.74
Bromochloromethane	ND	5.7	ug/L	1.7
Bromodichloromethane	ND	5.7	ug/L	0.86
Bromoform	ND	5.7	ug/L	3.7
Bromomethane	ND	5.7	ug/L	2.3
n-Butylbenzene	ND	5.7	ug/L	0.69
sec-Butylbenzene	ND	5.7	ug/L	0.74
tert-Butylbenzene	ND	5.7	ug/L	0.74
Carbon tetrachloride	ND	5.7	ug/L	0.74
Chlorobenzene	ND	5.7	ug/L	0.86
Chlorodibromomethane	ND	5.7	ug/L	1.0
Chloroethane	ND	5.7	ug/L	1.7
Chloroform	ND	5.7	ug/L	0.91
Chloromethane	ND	5.7	ug/L	1.7
2-Chlorotoluene	ND	5.7	ug/L	0.63
4-Chlorotoluene	ND	5.7	ug/L	1.0
1,2-Dibromo-3-chloropropane (DBCP)	ND	11	ug/L	3.8
1,2-Dibromoethane	ND	5.7	ug/L	1.4
Dibromomethane	ND	5.7	ug/L	1.6
1,2-Dichlorobenzene	ND	5.7	ug/L	0.74
1,3-Dichlorobenzene	ND	5.7	ug/L	0.80
1,4-Dichlorobenzene	ND	5.7	ug/L	0.74
Dichlorodifluoromethane	ND	5.7	ug/L	1.8
1,1-Dichloroethane	ND	5.7	ug/L	0.86
1,2-Dichloroethane	ND	5.7	ug/L	1.3
cis-1,2-Dichloroethene	**170**	**5.7**	**ug/L**	**0.97**
trans-1,2-Dichloroethene	ND	5.7	ug/L	1.1
1,1-Dichloroethene	ND	5.7	ug/L	1.1
1,2-Dichloropropane	ND	5.7	ug/L	1.0
1,3-Dichloropropane	ND	5.7	ug/L	0.91
2,2-Dichloropropane	ND	5.7	ug/L	0.74
1,1-Dichloropropene	ND	5.7	ug/L	0.74
1,4-Dioxane	ND	290	ug/L	110
Ethylbenzene	ND	5.7	ug/L	0.97
Hexachlorobutadiene	ND	5.7	ug/L	1.7

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-20 PURGED

GC/MS Volatiles

Lot-Sample #...: A0E040435-027 **Work Order #...:** L2F6V1AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	5.7	ug/L	0.69
Methylene chloride	ND	5.7	ug/L	1.9
Naphthalene	ND	5.7	ug/L	1.4
n-Propylbenzene	ND	5.7	ug/L	0.80
Styrene	ND	5.7	ug/L	0.63
1,1,1,2-Tetrachloroethane	ND	5.7	ug/L	1.3
1,1,2,2-Tetrachloroethane	ND	5.7	ug/L	1.0
Tetrachloroethene	ND	5.7	ug/L	1.7
Toluene	ND	5.7	ug/L	0.74
1,2,3-Trichlorobenzene	ND	5.7	ug/L	0.97
1,2,4-Trichloro-benzene	ND	5.7	ug/L	0.86
1,1,1-Trichloroethane	ND	5.7	ug/L	1.3
1,1,2-Trichloroethane	ND	5.7	ug/L	1.5
Trichloroethene	ND	5.7	ug/L	0.97
Trichlorofluoromethane	ND	5.7	ug/L	1.2
1,2,3-Trichloropropane	ND	5.7	ug/L	2.5
1,2,4-Trimethylbenzene	ND	5.7	ug/L	0.69
1,3,5-Trimethylbenzene	ND	5.7	ug/L	0.55
Vinyl chloride	ND	5.7	ug/L	1.3
m-Xylene & p-Xylene	ND	11	ug/L	1.4
o-Xylene	ND	5.7	ug/L	0.80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-20 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-027 Work Order #...: L2F6V1AA Matrix.....: WG
Date Sampled...: 06/02/10 17:30 Date Received..: 06/04/10
Prep Date.....: 06/15/10 Analysis Date..: 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 1
Analyst ID.....: 001904 Instrument ID..: UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	2.0	ug/L	0.33

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	97	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A0F040435-028 **Work Order #...:** L2F6W1AA **Matrix.....:** WG
Date Sampled...: 06/02/10 17:33 **Date Received..:** 06/04/10
Prep Date.....: 06/16/10 **Analysis Date..:** 06/16/10
Prep Batch #...: 0168150
Dilution Factor: 2.5
Analyst ID.....: 001904 **Instrument ID..:** UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.82

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	100	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MANSON BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A0F040435-029 **Work Order #...:** L2F601AA **Matrix.....:** WG
Date Sampled...: 06/02/10 17:50 **Date Received..:** 06/04/10
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 50
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	50	ug/L	6.5
Benzene	ND	50	ug/L	6.5
Bromochloromethane	ND	50	ug/L	14
Bromodichloromethane	ND	50	ug/L	7.5
Bromoform	ND	50	ug/L	32
Bromomethane	ND	50	ug/L	20
n-Butylbenzene	ND	50	ug/L	6.0
sec-Butylbenzene	ND	50	ug/L	6.5
tert-Butylbenzene	ND	50	ug/L	6.5
Carbon tetrachloride	ND	50	ug/L	6.5
Chlorobenzene	ND	50	ug/L	7.5
Chlorodibromomethane	ND	50	ug/L	9.0
Chloroethane	ND	50	ug/L	14
Chloroform	ND	50	ug/L	8.0
Chloromethane	ND	50	ug/L	15
2-Chlorotoluene	ND	50	ug/L	5.5
4-Chlorotoluene	ND	50	ug/L	9.0
1,2-Dibromo-3-chloropropane (DBCP)	ND	100	ug/L	34
1,2-Dibromoethane	ND	50	ug/L	12
Dibromomethane	ND	50	ug/L	14
1,2-Dichlorobenzene	ND	50	ug/L	6.5
1,3-Dichlorobenzene	ND	50	ug/L	7.0
1,4-Dichlorobenzene	ND	50	ug/L	6.5
Dichlorodifluoromethane	ND	50	ug/L	16
1,1-Dichloroethane	ND	50	ug/L	7.5
1,2-Dichloroethane	ND	50	ug/L	11
cis-1,2-Dichloroethene	**180**	**50**	**ug/L**	**8.5**
trans-1,2-Dichloroethene	ND	50	ug/L	9.5
1,1-Dichloroethene	**160**	**50**	**ug/L**	**9.5**
1,2-Dichloropropane	ND	50	ug/L	9.0
1,3-Dichloropropane	ND	50	ug/L	8.0
2,2-Dichloropropane	ND	50	ug/L	6.5
1,1-Dichloropropene	ND	50	ug/L	6.5
1,4-Dioxane	ND	2500	ug/L	950
Ethylbenzene	ND	50	ug/L	8.5
Hexachlorobutadiene	ND	50	ug/L	15

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MACTEC Engineering and Consulting Inc

Client Sample ID: MANSON BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A0F040435-029 **Work Order #...:** L2F601AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	50	ug/L	6.0
Methylene chloride	ND	50	ug/L	16
Naphthalene	ND	50	ug/L	12
n-Propylbenzene	ND	50	ug/L	7.0
Styrene	ND	50	ug/L	5.5
1,1,1,2-Tetrachloroethane	ND	50	ug/L	12
1,1,2,2-Tetrachloroethane	ND	50	ug/L	9.0
Tetrachloroethene	ND	50	ug/L	14
Toluene	ND	50	ug/L	6.5
1,2,3-Trichlorobenzene	ND	50	ug/L	8.5
1,2,4-Trichloro-benzene	ND	50	ug/L	7.5
1,1,1-Trichloroethane	**61**	**50**	**ug/L**	**11**
1,1,2-Trichloroethane	ND	50	ug/L	14
Trichloroethene	**1700**	**50**	**ug/L**	**8.5**
Trichlorofluoromethane	ND	50	ug/L	10
1,2,3-Trichloropropane	ND	50	ug/L	22
1,2,4-Trimethylbenzene	ND	50	ug/L	6.0
1,3,5-Trimethylbenzene	ND	50	ug/L	4.8
Vinyl chloride	ND	50	ug/L	11
m-Xylene & p-Xylene	ND	100	ug/L	12
o-Xylene	ND	50	ug/L	7.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A0F040435-030 **Work Order #...:** L2F611AA **Matrix.....:** WG
Date Sampled...: 06/03/10 14:25 **Date Received..:** 06/04/10
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 2
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	2.0	ug/L	0.26
Benzene	ND	2.0	ug/L	0.26
Bromochloromethane	ND	2.0	ug/L	0.58
Bromodichloromethane	ND	2.0	ug/L	0.30
Bromoform	ND	2.0	ug/L	1.3
Bromomethane	ND	2.0	ug/L	0.82
n-Butylbenzene	ND	2.0	ug/L	0.24
sec-Butylbenzene	ND	2.0	ug/L	0.26
tert-Butylbenzene	ND	2.0	ug/L	0.26
Carbon tetrachloride	ND	2.0	ug/L	0.26
Chlorobenzene	ND	2.0	ug/L	0.30
Chlorodibromomethane	ND	2.0	ug/L	0.36
Chloroethane	ND	2.0	ug/L	0.58
Chloroform	ND	2.0	ug/L	0.32
Chloromethane	ND	2.0	ug/L	0.60
2-Chlorotoluene	ND	2.0	ug/L	0.22
4-Chlorotoluene	ND	2.0	ug/L	0.36
1,2-Dibromo-3-chloropropane (DBCP)	ND	4.0	ug/L	1.3
1,2-Dibromoethane	ND	2.0	ug/L	0.48
Dibromomethane	ND	2.0	ug/L	0.56
1,2-Dichlorobenzene	ND	2.0	ug/L	0.26
1,3-Dichlorobenzene	ND	2.0	ug/L	0.28
1,4-Dichlorobenzene	ND	2.0	ug/L	0.26
Dichlorodifluoromethane	ND	2.0	ug/L	0.62
1,1-Dichloroethane	ND	2.0	ug/L	0.30
1,2-Dichloroethane	ND	2.0	ug/L	0.44
cis-1,2-Dichloroethene	**63**	**2.0**	**ug/L**	**0.34**
trans-1,2-Dichloroethene	ND	2.0	ug/L	0.38
1,1-Dichloroethene	**12**	**2.0**	**ug/L**	**0.38**
1,2-Dichloropropane	ND	2.0	ug/L	0.36
1,3-Dichloropropane	ND	2.0	ug/L	0.32
2,2-Dichloropropane	ND	2.0	ug/L	0.26
1,1-Dichloropropene	ND	2.0	ug/L	0.26
1,4-Dioxane	ND	100	ug/L	38
Ethylbenzene	ND	2.0	ug/L	0.34
Hexachlorobutadiene	ND	2.0	ug/L	0.60

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MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A0F040435-030 **Work Order #...:** L2F611AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	2.0	ug/L	0.24
Methylene chloride	ND	2.0	ug/L	0.66
Naphthalene	ND	2.0	ug/L	0.48
n-Propylbenzene	ND	2.0	ug/L	0.28
Styrene	ND	2.0	ug/L	0.22
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L	0.46
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L	0.36
Tetrachloroethene	ND	2.0	ug/L	0.58
Toluene	ND	2.0	ug/L	0.26
1,2,3-Trichlorobenzene	ND	2.0	ug/L	0.34
1,2,4-Trichloro-benzene	ND	2.0	ug/L	0.30
1,1,1-Trichloroethane	ND	2.0	ug/L	0.44
1,1,2-Trichloroethane	ND	2.0	ug/L	0.54
Trichloroethene	**41**	**2.0**	**ug/L**	**0.34**
Trichlorofluoromethane	ND	2.0	ug/L	0.42
1,2,3-Trichloropropane	ND	2.0	ug/L	0.86
1,2,4-Trimethylbenzene	ND	2.0	ug/L	0.24
1,3,5-Trimethylbenzene	ND	2.0	ug/L	0.19
Vinyl chloride	ND	2.0	ug/L	0.44
m-Xylene & p-Xylene	ND	4.0	ug/L	0.48
o-Xylene	ND	2.0	ug/L	0.28

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-10 PURGE

GC/MS Volatiles

Lot-Sample #...: A0F040435-031 **Work Order #...:** L2F621AC **Matrix.....:** WG
Date Sampled...: 06/03/10 10:00 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**1.9**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-10 PURGE

GC/MS Volatiles

Lot-Sample #...: A0F040435-031 **Work Order #...:** L2F621AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	**2.8**	**1.0**	**ug/L**	**0.17**
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-10 PURGE

GC/MS Volatiles

Lot-Sample #...:	A0F040435-031	**Work Order #...:**	L2F621AA	**Matrix.....:**	WG
Date Sampled...:	06/03/10 10:00	**Date Received..:**	06/04/10		
Prep Date.....:	06/15/10	**Analysis Date..:**	06/15/10		
Prep Batch #...:	0168150				
Dilution Factor:	1				
Analyst ID.....:	001904	**Instrument ID..:**	UX16		
		Method.....:	SW846 8260B SIM		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	2.0	ug/L	0.33

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	106	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-3 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-032 **Work Order #...:** L2F631AC **Matrix.....:** WG
Date Sampled...: 06/03/10 11:25 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	**2.3**	**1.0**	**ug/L**	**0.16**
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	**1.7**	**1.0**	**ug/L**	**0.19**
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-3 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-032 **Work Order #...:** L2F631AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	**2.4**	**1.0**	**ug/L**	**0.17**
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-3 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-032 **Work Order #...:** L2F631AA **Matrix.....:** WG
Date Sampled...: 06/03/10 11:25 **Date Received..:** 06/04/10
Prep Date.....: 06/15/10 **Analysis Date..:** 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	2.0	ug/L	0.33

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PURGE

GC/MS Volatiles

Lot-Sample #...: A0F040435-033 Work Order #...: L2F641AC Matrix.....: WG
Date Sampled...: 06/03/10 13:15 Date Received..: 06/04/10
Prep Date.....: 06/08/10 Analysis Date..: 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 142.86
Analyst ID.....: 001904 Instrument ID..: UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	140	ug/L	19
Benzene	ND	140	ug/L	19
Bromochloromethane	ND	140	ug/L	41
Bromodichloromethane	ND	140	ug/L	21
Bromoform	ND	140	ug/L	91
Bromomethane	ND	140	ug/L	59
n-Butylbenzene	ND	140	ug/L	17
sec-Butylbenzene	ND	140	ug/L	19
tert-Butylbenzene	ND	140	ug/L	19
Carbon tetrachloride	ND	140	ug/L	19
Chlorobenzene	ND	140	ug/L	21
Chlorodibromomethane	ND	140	ug/L	26
Chloroethane	ND	140	ug/L	41
Chloroform	ND	140	ug/L	23
Chloromethane	ND	140	ug/L	43
2-Chlorotoluene	ND	140	ug/L	16
4-Chlorotoluene	ND	140	ug/L	26
1,2-Dibromo-3-chloropropane (DBCP)	ND	290	ug/L	96
1,2-Dibromoethane	ND	140	ug/L	34
Dibromomethane	ND	140	ug/L	40
1,2-Dichlorobenzene	ND	140	ug/L	19
1,3-Dichlorobenzene	ND	140	ug/L	20
1,4-Dichlorobenzene	ND	140	ug/L	19
Dichlorodifluoromethane	ND	140	ug/L	44
1,1-Dichloroethane	ND	140	ug/L	21
1,2-Dichloroethane	ND	140	ug/L	31
cis-1,2-Dichloroethene	**380**	**140**	**ug/L**	**24**
trans-1,2-Dichloroethene	ND	140	ug/L	27
1,1-Dichloroethene	ND	140	ug/L	27
1,2-Dichloropropane	ND	140	ug/L	26
1,3-Dichloropropane	ND	140	ug/L	23
2,2-Dichloropropane	ND	140	ug/L	19
1,1-Dichloropropene	ND	140	ug/L	19
1,4-Dioxane	ND	7100	ug/L	2700
Ethylbenzene	ND	140	ug/L	24
Hexachlorobutadiene	ND	140	ug/L	43

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PURGE

GC/MS Volatiles

Lot-Sample #...: A0F040435-033 **Work Order #...:** L2F641AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	140	ug/L	17
Methylene chloride	ND	140	ug/L	47
Naphthalene	ND	140	ug/L	34
n-Propylbenzene	ND	140	ug/L	20
Styrene	ND	140	ug/L	16
1,1,1,2-Tetrachloroethane	ND	140	ug/L	33
1,1,2,2-Tetrachloroethane	ND	140	ug/L	26
Tetrachloroethene	ND	140	ug/L	41
Toluene	ND	140	ug/L	19
1,2,3-Trichlorobenzene	ND	140	ug/L	24
1,2,4-Trichloro-benzene	ND	140	ug/L	21
1,1,1-Trichloroethane	ND	140	ug/L	31
1,1,2-Trichloroethane	ND	140	ug/L	39
Trichloroethene	**3600**	**140**	**ug/L**	**24**
Trichlorofluoromethane	ND	140	ug/L	30
1,2,3-Trichloropropane	ND	140	ug/L	61
1,2,4-Trimethylbenzene	ND	140	ug/L	17
1,3,5-Trimethylbenzene	ND	140	ug/L	14
Vinyl chloride	ND	140	ug/L	31
m-Xylene & p-Xylene	ND	290	ug/L	34
o-Xylene	ND	140	ug/L	20

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PURGE

GC/MS Volatiles

Lot-Sample #...: A0F040435-033 **Work Order #...:** L2F642AC **Matrix.....:** WG
Date Sampled...: 06/03/10 13:15 **Date Received..:** 06/04/10
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 28.57
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	29	ug/L	3.7
Benzene	ND	29	ug/L	3.7
Bromochloromethane	ND	29	ug/L	8.3
Bromodichloromethane	ND	29	ug/L	4.3
Bromoform	ND	29	ug/L	18
Bromomethane	ND	29	ug/L	12
n-Butylbenzene	ND	29	ug/L	3.4
sec-Butylbenzene	ND	29	ug/L	3.7
tert-Butylbenzene	ND	29	ug/L	3.7
Carbon tetrachloride	ND	29	ug/L	3.7
Chlorobenzene	ND	29	ug/L	4.3
Chlorodibromomethane	ND	29	ug/L	5.1
Chloroethane	ND	29	ug/L	8.3
Chloroform	ND	29	ug/L	4.6
Chloromethane	ND	29	ug/L	8.6
2-Chlorotoluene	ND	29	ug/L	3.1
4-Chlorotoluene	ND	29	ug/L	5.1
1,2-Dibromo-3-chloropropane (DBCP)	ND	57	ug/L	19
1,2-Dibromoethane	ND	29	ug/L	6.9
Dibromomethane	ND	29	ug/L	8.0
1,2-Dichlorobenzene	ND	29	ug/L	3.7
1,3-Dichlorobenzene	ND	29	ug/L	4.0
1,4-Dichlorobenzene	ND	29	ug/L	3.7
Dichlorodifluoromethane	ND	29	ug/L	8.9
1,1-Dichloroethane	ND	29	ug/L	4.3
1,2-Dichloroethane	ND	29	ug/L	6.3
cis-1,2-Dichloroethene	**330**	**29**	**ug/L**	**4.9**
trans-1,2-Dichloroethene	ND	29	ug/L	5.4
1,1-Dichloroethene	**58**	**29**	**ug/L**	**5.4**
1,2-Dichloropropane	ND	29	ug/L	5.1
1,3-Dichloropropane	ND	29	ug/L	4.6
2,2-Dichloropropane	ND	29	ug/L	3.7
1,1-Dichloropropene	ND	29	ug/L	3.7
1,4-Dioxane	ND	1400	ug/L	540
Ethylbenzene	ND	29	ug/L	4.9
Hexachlorobutadiene	ND	29	ug/L	8.6

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PURGE

GC/MS Volatiles

Lot-Sample #...: A0F040435-033 **Work Order #...:** L2F642AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	29	ug/L	3.4
Methylene chloride	ND	29	ug/L	9.4
Naphthalene	ND	29	ug/L	6.9
n-Propylbenzene	ND	29	ug/L	4.0
Styrene	ND	29	ug/L	3.1
1,1,1,2-Tetrachloroethane	ND	29	ug/L	6.6
1,1,2,2-Tetrachloroethane	ND	29	ug/L	5.1
Tetrachloroethene	ND	29	ug/L	8.3
Toluene	ND	29	ug/L	3.7
1,2,3-Trichlorobenzene	ND	29	ug/L	4.9
1,2,4-Trichloro-benzene	ND	29	ug/L	4.3
1,1,1-Trichloroethane	ND	29	ug/L	6.3
1,1,2-Trichloroethane	ND	29	ug/L	7.7
Trichloroethene	**3200 E**	**29**	**ug/L**	**4.9**
Trichlorofluoromethane	ND	29	ug/L	6.0
1,2,3-Trichloropropane	ND	29	ug/L	12
1,2,4-Trimethylbenzene	ND	29	ug/L	3.4
1,3,5-Trimethylbenzene	ND	29	ug/L	2.7
Vinyl chloride	ND	29	ug/L	6.3
m-Xylene & p-Xylene	ND	57	ug/L	6.9
o-Xylene	ND	29	ug/L	4.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-14 PURGE

GC/MS Volatiles

Lot-Sample #...: A0F040435-033 **Work Order #...:** L2F641AA **Matrix.....:** WG
Date Sampled...: 06/03/10 13:15 **Date Received..:** 06/04/10
Prep Date.....: 06/15/10 **Analysis Date..:** 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 14.29
Analyst ID.....: 001904 **Instrument ID..:** UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	29	ug/L	4.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	100	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-034 **Work Order #...:** L2F661AC **Matrix.....:** WG
Date Sampled...: 06/03/10 13:45 **Date Received..:** 06/04/10
Prep Date.....: 06/07/10 **Analysis Date..:** 06/07/10
Prep Batch #...: 0158191
Dilution Factor: 200
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	200	ug/L	26
Benzene	ND	200	ug/L	26
Bromochloromethane	ND	200	ug/L	58
Bromodichloromethane	ND	200	ug/L	30
Bromoform	ND	200	ug/L	130
Bromomethane	ND	200	ug/L	82
n-Butylbenzene	ND	200	ug/L	24
sec-Butylbenzene	ND	200	ug/L	26
tert-Butylbenzene	ND	200	ug/L	26
Carbon tetrachloride	ND	200	ug/L	26
Chlorobenzene	ND	200	ug/L	30
Chlorodibromomethane	ND	200	ug/L	36
Chloroethane	ND	200	ug/L	58
Chloroform	ND	200	ug/L	32
Chloromethane	ND	200	ug/L	60
2-Chlorotoluene	ND	200	ug/L	22
4-Chlorotoluene	ND	200	ug/L	36
1,2-Dibromo-3-chloropropane (DBCP)	ND	400	ug/L	130
1,2-Dibromoethane	ND	200	ug/L	48
Dibromomethane	ND	200	ug/L	56
1,2-Dichlorobenzene	ND	200	ug/L	26
1,3-Dichlorobenzene	ND	200	ug/L	28
1,4-Dichlorobenzene	ND	200	ug/L	26
Dichlorodifluoromethane	ND	200	ug/L	62
1,1-Dichloroethane	ND	200	ug/L	30
1,2-Dichloroethane	ND	200	ug/L	44
cis-1,2-Dichloroethene	ND	200	ug/L	34
trans-1,2-Dichloroethene	ND	200	ug/L	38
1,1-Dichloroethene	ND	200	ug/L	38
1,2-Dichloropropane	ND	200	ug/L	36
1,3-Dichloropropane	ND	200	ug/L	32
2,2-Dichloropropane	ND	200	ug/L	26
1,1-Dichloropropene	ND	200	ug/L	26
1,4-Dioxane	ND	10000	ug/L	3800
Ethylbenzene	ND	200	ug/L	34
Hexachlorobutadiene	ND	200	ug/L	60

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-034 Work Order #...: L2F661AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	200	ug/L	24
Methylene chloride	ND	200	ug/L	66
Naphthalene	ND	200	ug/L	48
n-Propylbenzene	ND	200	ug/L	28
Styrene	ND	200	ug/L	22
1,1,1,2-Tetrachloroethane	ND	200	ug/L	46
1,1,2,2-Tetrachloroethane	ND	200	ug/L	36
Tetrachloroethene	ND	200	ug/L	58
Toluene	ND	200	ug/L	26
1,2,3-Trichlorobenzene	ND	200	ug/L	34
1,2,4-Trichloro-benzene	ND	200	ug/L	30
1,1,1-Trichloroethane	ND	200	ug/L	44
1,1,2-Trichloroethane	ND	200	ug/L	54
Trichloroethene	**5800**	**200**	**ug/L**	**34**
Trichlorofluoromethane	ND	200	ug/L	42
1,2,3-Trichloropropane	ND	200	ug/L	86
1,2,4-Trimethylbenzene	ND	200	ug/L	24
1,3,5-Trimethylbenzene	ND	200	ug/L	19
Vinyl chloride	ND	200	ug/L	44
m-Xylene & p-Xylene	ND	400	ug/L	48
o-Xylene	ND	200	ug/L	28

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-034 **Work Order #...:** L2F662AC **Matrix.....:** WG
Date Sampled...: 06/03/10 13:45 **Date Received..:** 06/04/10
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 40
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	40	ug/L	5.2
Benzene	ND	40	ug/L	5.2
Bromochloromethane	ND	40	ug/L	12
Bromodichloromethane	ND	40	ug/L	6.0
Bromoform	ND	40	ug/L	26
Bromomethane	ND	40	ug/L	16
n-Butylbenzene	ND	40	ug/L	4.8
sec-Butylbenzene	ND	40	ug/L	5.2
tert-Butylbenzene	ND	40	ug/L	5.2
Carbon tetrachloride	ND	40	ug/L	5.2
Chlorobenzene	ND	40	ug/L	6.0
Chlorodibromomethane	ND	40	ug/L	7.2
Chloroethane	ND	40	ug/L	12
Chloroform	ND	40	ug/L	6.4
Chloromethane	ND	40	ug/L	12
2-Chlorotoluene	ND	40	ug/L	4.4
4-Chlorotoluene	ND	40	ug/L	7.2
1,2-Dibromo-3-chloropropane (DBCP)	ND	80	ug/L	27
1,2-Dibromoethane	ND	40	ug/L	9.6
Dibromomethane	ND	40	ug/L	11
1,2-Dichlorobenzene	ND	40	ug/L	5.2
1,3-Dichlorobenzene	ND	40	ug/L	5.6
1,4-Dichlorobenzene	ND	40	ug/L	5.2
Dichlorodifluoromethane	ND	40	ug/L	12
1,1-Dichloroethane	ND	40	ug/L	6.0
1,2-Dichloroethane	ND	40	ug/L	8.8
cis-1,2-Dichloroethene	ND	40	ug/L	6.8
trans-1,2-Dichloroethene	ND	40	ug/L	7.6
1,1-Dichloroethene	**72**	**40**	**ug/L**	**7.6**
1,2-Dichloropropane	ND	40	ug/L	7.2
1,3-Dichloropropane	ND	40	ug/L	6.4
2,2-Dichloropropane	ND	40	ug/L	5.2
1,1-Dichloropropene	ND	40	ug/L	5.2
1,4-Dioxane	ND	2000	ug/L	760
Ethylbenzene	ND	40	ug/L	6.8
Hexachlorobutadiene	ND	40	ug/L	12

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-034 Work Order #...: L2F662AC Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	40	ug/L	4.8
Methylene chloride	ND	40	ug/L	13
Naphthalene	ND	40	ug/L	9.6
n-Propylbenzene	ND	40	ug/L	5.6
Styrene	ND	40	ug/L	4.4
1,1,1,2-Tetrachloroethane	ND	40	ug/L	9.2
1,1,2,2-Tetrachloroethane	ND	40	ug/L	7.2
Tetrachloroethene	ND	40	ug/L	12
Toluene	ND	40	ug/L	5.2
1,2,3-Trichlorobenzene	ND	40	ug/L	6.8
1,2,4-Trichloro-benzene	ND	40	ug/L	6.0
1,1,1-Trichloroethane	ND	40	ug/L	8.8
1,1,2-Trichloroethane	ND	40	ug/L	11
Trichloroethene	**5800 E**	**40**	**ug/L**	**6.8**
Trichlorofluoromethane	ND	40	ug/L	8.4
1,2,3-Trichloropropane	ND	40	ug/L	17
1,2,4-Trimethylbenzene	ND	40	ug/L	4.8
1,3,5-Trimethylbenzene	ND	40	ug/L	3.8
Vinyl chloride	ND	40	ug/L	8.8
m-Xylene & p-Xylene	ND	80	ug/L	9.6
o-Xylene	ND	40	ug/L	5.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

NOTE(S):

E Estimated result. Result concentration exceeds the calibration range.

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-19 PURGED

GC/MS Volatiles

Lot-Sample #...: A0F040435-034 **Work Order #...:** L2F661AA **Matrix.....:** WG
Date Sampled...: 06/03/10 13:45 **Date Received..:** 06/04/10
Prep Date.....: 06/15/10 **Analysis Date..:** 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 20
Analyst ID.....: 001904 **Instrument ID..:** UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	40	ug/L	6.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A0F040435-035 **Work Order #...:** L2F7A1AA **Matrix.....:** WG
Date Sampled...: 06/03/10 16:00 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

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MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A0F040435-035 **Work Order #...:** L2F7A1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

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QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0E040435 **Work Order #...:** L2JPQ1AA **Matrix.....:** WATER
MB Lot-Sample #: A0F070000-112

Prep Date.....: 06/04/10 **Instrument ID..:** UX11
Analysis Date..: 06/04/10 **Prep Batch #...:** 0158112
Dilution Factor: 1

Analyst ID.....: 001644

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2JPQ1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	85	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2J1K1AA **Matrix.....:** WATER
MB Lot-Sample #: A0F070000-191

Prep Date.....: 06/07/10 **Instrument ID..:** UX10

Analysis Date..: 06/07/10 **Prep Batch #...:** 0158191
Dilution Factor: 1

Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2J1K1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2L2E1AA **Matrix.....:** WATER
MB Lot-Sample #: A0F080000-358

Prep Date.....: 06/08/10 **Instrument ID..:** UX10
Analysis Date..: 06/08/10 **Prep Batch #...:** 0159358
Dilution Factor: 1

Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2L2E1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2PFK1AA **Matrix.....:** WATER
MB Lot-Sample #: A0F100000-174

Prep Date.....: 06/09/10 **Instrument ID..:** UX10
Analysis Date..: 06/09/10 **Prep Batch #...:** 0161174
Dilution Factor: 1

Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2PFK1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2QXX1AA **Matrix.....:** WATER
MB Lot-Sample #: A0F110000-041

Prep Date.....: 06/10/10 **Instrument ID..:** UX10
Analysis Date..: 06/10/10 **Prep Batch #...:** 0162041
Dilution Factor: 1

Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0E040435 **Work Order #...:** L2QXX1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	104	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2X4L1AA **Matrix.....:** WATER
MB Lot-Sample #: A0F150000-410

Prep Date.....: 06/09/10 **Instrument ID..:** UX10
Analysis Date..: 06/09/10 **Prep Batch #...:** 0166410
Dilution Factor: 1

Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2X4L1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L22G21AA **Matrix.....:** WATER
MB Lot-Sample #: A0F170000-150

Prep Date.....: 06/15/10 **Instrument ID..:** UX16
Analysis Date..: 06/15/10 **Prep Batch #...:** 0168150
Dilution Factor: 1

Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dioxane	ND	2.0	ug/L	SW846 8260B SIM

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(61 - 128)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2JPQ1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0F070000-112 L2JPQ1AD-LCSD
Prep Date.....: 06/04/10 **Analysis Date..:** 06/04/10
Prep Batch #...: 0158112
Dilution Factor: 1 **Instrument ID..:** UX11
Analyst ID.....: 001644

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**86**	**(63 - 130)**			**SW846 8260B**
	88	**(63 - 130)**	**2.5**	**(0-20)**	**SW846 8260B**
Trichloroethene	**90**	**(75 - 122)**			**SW846 8260B**
	92	**(75 - 122)**	**2.3**	**(0-20)**	**SW846 8260B**
Benzene	**101**	**(80 - 116)**			**SW846 8260B**
	103	**(80 - 116)**	**2.2**	**(0-20)**	**SW846 8260B**
Toluene	**104**	**(74 - 119)**			**SW846 8260B**
	106	**(74 - 119)**	**2.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**			**SW846 8260B**
	101	**(76 - 117)**	**1.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
	91	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
	91	(61 - 128)
Toluene-d8	96	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2J1K1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0F070000-191 L2J1K1AD-LCSD
Prep Date.....: 06/07/10 **Analysis Date..:** 06/07/10
Prep Batch #...: 0158191
Dilution Factor: 1 **Instrument ID..:** UX10
Analyst ID.....: 001904

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**109**	**(63 - 130)**			**SW846 8260B**
	107	**(63 - 130)**	**2.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(75 - 122)**			**SW846 8260B**
	98	**(75 - 122)**	**1.4**	**(0-20)**	**SW846 8260B**
Benzene	**100**	**(80 - 116)**			**SW846 8260B**
	98	**(80 - 116)**	**2.7**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(74 - 119)**			**SW846 8260B**
	96	**(74 - 119)**	**1.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**99**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**1.8**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
	104	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
	102	(61 - 128)
Toluene-d8	100	(76 - 110)
	100	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2L2E1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0F080000-358 L2L2E1AD-LCSD
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 1 **Instrument ID..:** UX10
Analyst ID.....: 001904

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	104	(63 - 130)			SW846 8260B
	108	(63 - 130)	3.8	(0-20)	SW846 8260B
Trichloroethene	94	(75 - 122)			SW846 8260B
	98	(75 - 122)	4.4	(0-20)	SW846 8260B
Benzene	96	(80 - 116)			SW846 8260B
	100	(80 - 116)	4.2	(0-20)	SW846 8260B
Toluene	93	(74 - 119)			SW846 8260B
	96	(74 - 119)	3.2	(0-20)	SW846 8260B
Chlorobenzene	94	(76 - 117)			SW846 8260B
	96	(76 - 117)	2.2	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
	106	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
	104	(61 - 128)
Toluene-d8	100	(76 - 110)
	102	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2PFK1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0F100000-174 L2PFK1AD-LCSD
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 1 **Instrument ID..:** UX10
Analyst ID.....: 001904

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**107**	**(63 - 130)**			**SW846 8260B**
	106	**(63 - 130)**	**1.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(75 - 122)**			**SW846 8260B**
	98	**(75 - 122)**	**0.91**	**(0-20)**	**SW846 8260B**
Benzene	**100**	**(80 - 116)**			**SW846 8260B**
	100	**(80 - 116)**	**0.22**	**(0-20)**	**SW846 8260B**
Toluene	**94**	**(74 - 119)**			**SW846 8260B**
	96	**(74 - 119)**	**2.4**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**1.6**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
	103	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
	102	(61 - 128)
Toluene-d8	99	(76 - 110)
	102	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	99	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2QXX1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0F110000-041 L2QXX1AD-LCSD
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1 **Instrument ID..:** UX10
Analyst ID.....: 001904

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**110**	**(63 - 130)**			**SW846 8260B**
	109	**(63 - 130)**	**0.85**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(75 - 122)**			**SW846 8260B**
	98	**(75 - 122)**	**0.89**	**(0-20)**	**SW846 8260B**
Benzene	**102**	**(80 - 116)**			**SW846 8260B**
	101	**(80 - 116)**	**1.3**	**(0-20)**	**SW846 8260B**
Toluene	**102**	**(74 - 119)**			**SW846 8260B**
	101	**(74 - 119)**	**1.7**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**102**	**(76 - 117)**			**SW846 8260B**
	100	**(76 - 117)**	**2.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	101	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
	92	(61 - 128)
Toluene-d8	102	(76 - 110)
	102	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)
	95	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2X4L1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0F150000-410 L2X4L1AD-LCSD
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0166410
Dilution Factor: 1 **Instrument ID..:** UX10
Analyst ID.....: 001904

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	102	**(63 - 130)**			**SW846 8260B**
	99	**(63 - 130)**	**3.0**	**(0-20)**	**SW846 8260B**
Trichloroethene	89	**(75 - 122)**			**SW846 8260B**
	91	**(75 - 122)**	**1.8**	**(0-20)**	**SW846 8260B**
Benzene	91	**(80 - 116)**			**SW846 8260B**
	94	**(80 - 116)**	**3.0**	**(0-20)**	**SW846 8260B**
Toluene	90	**(74 - 119)**			**SW846 8260B**
	94	**(74 - 119)**	**4.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	92	**(76 - 117)**			**SW846 8260B**
	95	**(76 - 117)**	**2.8**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	98	(61 - 128)
Toluene-d8	100	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L22G21AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0F170000-150 L22G21AD-LCSD
Prep Date.....: 06/15/10 **Analysis Date..:** 06/15/10
Prep Batch #...: 0168150
Dilution Factor: 1 **Instrument ID..:** UX16
Analyst ID.....: 001904

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,4-Dioxane	**96**	**(50 - 150)**			**SW846 8260B SIM**
	100	**(50 - 150)**	**3.8**	**(0-30)**	**SW846 8260B SIM**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	97	(61 - 128)
	100	(61 - 128)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2DNR1C1-MS **Matrix.....:** WATER
MS Lot-Sample #: A0F020548-001 L2DNR1C2-MSD
Date Sampled...: 06/01/10 10:15 **Date Received..:** 06/02/10
Prep Date.....: 06/05/10 **Analysis Date..:** 06/05/10
Prep Batch #...: 0158112
Dilution Factor: 142.86 **Analyst ID.....:** 001644 **Instrument ID..:** UX11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	83	(62 - 130)			SW846 8260B
	85	(62 - 130)	2.0	(0-20)	SW846 8260B
Trichloroethene	80	(62 - 130)			SW846 8260B
	88	(62 - 130)	2.3	(0-20)	SW846 8260B
Benzene	97	(78 - 118)			SW846 8260B
	99	(78 - 118)	1.6	(0-20)	SW846 8260B
Toluene	99	(70 - 119)			SW846 8260B
	100	(70 - 119)	1.2	(0-20)	SW846 8260B
Chlorobenzene	93	(76 - 117)			SW846 8260B
	95	(76 - 117)	1.8	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
	94	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
	95	(61 - 128)
Toluene-d8	98	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 Work Order #...: L2GG51AC-MS Matrix.....: WATER
MS Lot-Sample #: A0F040471-001 L2GG51AD-MSD
Date Sampled...: 06/03/10 14:05 Date Received..: 06/04/10
Prep Date.....: 06/07/10 Analysis Date..: 06/07/10
Prep Batch #...: 0158191
Dilution Factor: 2.5 Analyst ID.....: 001904 Instrument ID..: UX10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	105	(62 - 130)			SW846 8260B
	112	(62 - 130)	6.5	(0-20)	SW846 8260B
Trichloroethene	100	(62 - 130)			SW846 8260B
	99	(62 - 130)	0.10	(0-20)	SW846 8260B
Benzene	99	(78 - 118)			SW846 8260B
	101	(78 - 118)	2.6	(0-20)	SW846 8260B
Toluene	96	(70 - 119)			SW846 8260B
	98	(70 - 119)	2.7	(0-20)	SW846 8260B
Chlorobenzene	98	(76 - 117)			SW846 8260B
	99	(76 - 117)	1.1	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
	104	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
	101	(61 - 128)
Toluene-d8	100	(76 - 110)
	100	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A0F040435	**Work Order #...:**	L2F5W1AD-MS	**Matrix.....:**	WG
MS Lot-Sample #:	A0F040435-012		L2F5W1AE-MSD		
Date Sampled...:	06/01/10 13:47	**Date Received..:**	06/04/10		
Prep Date.....:	06/08/10	**Analysis Date..:**	06/08/10		
Prep Batch #...:	0159358				
Dilution Factor:	5	**Analyst ID.....:**	001904	**Instrument ID..:**	UX10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	107	(62 - 130)			SW846 8260B
	108	(62 - 130)	0.76	(0-20)	SW846 8260B
Trichloroethene	97	(62 - 130)			SW846 8260B
	99	(62 - 130)	2.3	(0-20)	SW846 8260B
Benzene	98	(78 - 118)			SW846 8260B
	100	(78 - 118)	2.6	(0-20)	SW846 8260B
Toluene	94	(70 - 119)			SW846 8260B
	95	(70 - 119)	1.6	(0-20)	SW846 8260B
Chlorobenzene	96	(76 - 117)			SW846 8260B
	97	(76 - 117)	1.7	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
	104	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	97	(61 - 128)
Toluene-d8	100	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	A0F040435	**Work Order #...:**	L2F6E1AC-MS	**Matrix.....:**	WG
MS Lot-Sample #:	A0F040435-018		L2F6E1AD-MSD		
Date Sampled...:	06/02/10 10:15	**Date Received..:**	06/04/10		
Prep Date.....:	06/09/10	**Analysis Date..:**	06/09/10		
Prep Batch #...:	0161174				
Dilution Factor:	1	**Analyst ID.....:**	001904	**Instrument ID..:**	UX10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	104	(62 - 130)			**SW846 8260B**
	102	(62 - 130)	2.0	(0-20)	**SW846 8260B**
Trichloroethene	92	(62 - 130)			**SW846 8260B**
	92	(62 - 130)	0.70	(0-20)	**SW846 8260B**
Benzene	93	(78 - 118)			**SW846 8260B**
	93	(78 - 118)	0.63	(0-20)	**SW846 8260B**
Toluene	94	(70 - 119)			**SW846 8260B**
	93	(70 - 119)	1.0	(0-20)	**SW846 8260B**
Chlorobenzene	95	(76 - 117)			**SW846 8260B**
	94	(76 - 117)	2.0	(0-20)	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
	99	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
	93	(61 - 128)
Toluene-d8	100	(76 - 110)
	101	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	98	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F040435 **Work Order #...:** L2G8K1AD-MS **Matrix.....:** WATER
MS Lot-Sample #: A0F040546-016 L2G8K1AE-MSD
Date Sampled...: 06/01/10 15:30 **Date Received..:** 06/04/10
Prep Date.....: 06/10/10 **Analysis Date..:** 06/10/10
Prep Batch #...: 0162041
Dilution Factor: 1 **Analyst ID.....:** 001904 **Instrument ID..:** UX10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	110	(62 - 130)			SW846 8260B
	106	(62 - 130)	1.8	(0-20)	SW846 8260B
Trichloroethene	97	(62 - 130)			SW846 8260B
	96	(62 - 130)	1.0	(0-20)	SW846 8260B
Benzene	100	(78 - 118)			SW846 8260B
	98	(78 - 118)	2.5	(0-20)	SW846 8260B
Toluene	99	(70 - 119)			SW846 8260B
	100	(70 - 119)	1.0	(0-20)	SW846 8260B
Chlorobenzene	99	(76 - 117)			SW846 8260B
	98	(76 - 117)	1.5	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	94	(61 - 128)
Toluene-d8	103	(76 - 110)
	102	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	96	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON

Regulatory program: ☐ DW ☐ NPDES ■ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: MACTEC	Client Project Manager: Greg Wrenn	Site Contact: Terrell Parker	Lab Contact: Alicia Danford
Address: 3200 Town Point Dr. Suite 100	Telephone: 770-421-3400	Telephone: 404-934-8970	Telephone:
City/State/Zip: Kennesaw, GA 30144	Email:		
Phone: 770-421-3400		TAT if different from below: ■ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: TK-Louisville	Method of Shipment/Carrier: FedEx		
Project Number: 6122-09-0322, 01	Shipping/Tracking No: 8566 3051 9668		
PO#			

COC No: 060110

1 of 4 COCs

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Preservation: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	# of Containers	Type	8260B 1,4-Dioxane	8270B 1,4-Dioxane by SIM	Sample Specific Notes / Special Instructions:
MW-22 PDB	6-1-10	15:35		X						3					N	G	X		
MW-24 PDB	6-1-10	16:58		X						3					N	G	X		
MW-5 PDB	6-1-10	17:10		X						4					N	G	X	X	
MW-7 PDB	6-1-10	16:37		X						3					N	G	X		
MW-9 PDB	6-1-10	15:17		X						3					N	G	X		
MW-1 PDB	6-1-10	15:50		X						3					N	G	X		
MW-8 PDB	6-1-10	16:10		X						3					N	G	X		
MW-2 PDB	6-1-10	14:42		X						3					N	G	X		
MW-23 PDB	6-1-10	15:02		X						3					N	G	X		
MW-21 PDB	6-1-10	16:25		X						3					N	G	X		

Possible Hazard Identification: ■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ■ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seal # 719687

Tommy Parker to FedEx

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	MACTEC	6-3-2010/19:50			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAL NC	6/4/10 915

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TAL-0018 (1008)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON
Regulatory program: ☐ DW ☐ NPDES ■ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: MACTEC	Client Project Manager: Greg Wrenn	Site Contact: Terrell Parker	Lab Contact: ALICIA DANFORD	COC No: 060110
Address: 3200 Town Point Dr. Suite 100	Telephone: 770-421-3400	Telephone: 404-934-8970	Telephone:	2 of 4 COCs
City/State/Zip: Kennesaw, GA 30144	Email:			
Phone: 770-421-3400				
Project Name: TK-Louisville	Method of Shipment/Carrier: FEDEX			
Project Number: 6122-09-0322, 01	Shipping/Tracking No: 8566 3051 9668			
PO#				

TAT if different from below ____
■ 3 weeks
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Analyses: 8260B + 1,4-Dioxane; 8260B + 1,4-Dioxane by Sim

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:			8260B + 1,4-Dioxane	8260B + 1,4-Dioxane by Sim	Sample Specific Notes / Special Instructions:
MW-6 PDB	6-1-10	14:22		X						3					N	G	X		
MW-20 PDB	6-1-10	13:47		X						4					N	G		X	
MW-3 PDB	6-2-10	08:12		X						4					N	G		X	
MW-4 PDB	6-2-10	08:38		X						3					N	G	X		
MW-19 PDB	6-2-10	09:00		X						4					N	G		X	48 hr TAT
MW-14 PDB	6-2-10	09:15		X						4					N	G		X	
MW-10 PDB	6-2-10	09:48		X						4					N	G		X	
MW-18 PDB	6-2-10	10:15		X						3					N	G	X		
MW-16 PDB	6-2-10	10:25		X						3					N	G	X		
MW-17 PDB	6-2-10	10:40		X						3					N	G	X		

Possible Hazard Identification: ■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ■ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:
NEED RESULTS FOR MW-19 by MONDAY AFTERNOON.
JAMES T. PARKER to FEDEX

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	MACTEC	6-3-2010 / 19:50			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Alaina Mangum	Company: TAL NC	Date/Time: 6/4/10 915

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TAL-0018 (1008)

Chain of Custody Record

TestAmerica — THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON

Regulatory program: ☐ DW ☐ NPDES ■ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact

Company Name: MACTEC
Address: 3200 Town Point Dr. Suite 100
City/State/Zip: Kennesaw, GA 30144
Phone: 770-421-3400
Project Name: TK-Louisville
Project Number: 6122-09-0322.01
PO #:

Client Project Manager: Greg Wrenn
Telephone: 770-421-3400
Email:
Method of Shipment/Carrier: FedEx
Shipping/Tracking No: 8566 3051 9668

Site Contact: Terrell Parker
Telephone: 404-934-8970

Lab Contact: ~~Mark Loeb~~ Alicia Danford 6-2-10
Telephone: 330-966-9387

COC No: 060110
3 of 4 COCs

TAT if different from below: ■ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

Analyses: 8260B + 1,4-Dioxane; 8260B + 1,4 Dioxane by SIM; Cooler temp °C

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other			8260B+1,4-Dioxane	8260B+1,4 Dioxane by SIM	Cooler temp °C	Sample Specific Notes / Special Instructions
MW-15	6-2-10	10:53		X						3					N	G	X			
MW-11	6-2-10	11:25		X						3					N	G	X			
MW-12	6-2-10	11:40		X						3					N	G	X			
MW-13	6-2-10	12:00		X						3					N	G	X			
TRIP Blank 060110	6-1-10	12:00		X						1					N	G	X			
Temp Blank	6-2-10	—		X									1						X	
MW-5 Purged	6-2-10	16:22		X						4					N	G		X		
MW-20 Purged	6-2-10	17:30		X						4					N	G		X		
SEEP C	6-2-10	17:33		X						3					N	G	X			
Manson Branch #2	6-2-10	17:50		X						3					N	G	X			

Possible Hazard Identification: ■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ■ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:

James T. Parker to FedEx

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	MACTEC	6-3-2010/19:50			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	TAL NC	6/4/10 915

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TAL-0018 (1008)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON
Regulatory program: ☐ DW ☐ NPDES ■ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: MACTEC	Client Project Manager: Greg Wrenn	Site Contact: Terrell Parker	Lab Contact: Alicia Danford	COC No: 060110
Address: 3200 Town Point Dr Suite 100	Telephone: 770-421-3400	Telephone: 404-934-8970	Telephone: 330-966-9387	4 of 4 COCs
City/State/Zip: Kennesaw, GA 30144	Email:			
Phone: 770-421-3400				
Project Name: TK-Louisville	Method of Shipment/Carrier: FEDEX:			
Project Number: 6122-09-0322,01	Shipping/Tracking No: 8566 3051 9668			
PO#				

TAT if different from below: ■ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

Analyses: 8260B+1,4-dioxane; 8260B+1,4-dioxane 6/ 5tm

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:					Sample Specific Notes / Special Instructions:
SEEP H	6-3-10	14:25		X						3					N	G	X		
MW-10 Purge	6-3-10	10:00		X						4					N	G		X	
MW-3 Purged	6-3-10	11:25		X						4					N	G		X	
MW-14 Purge	6-3-10	13:15		X						4					N	G		X	
MW-19 Purged	6-3-10	13:45		X						4					N	G		X	
SEEP L	6-3-10	16:00		X						3					N	G	X		

6-3-2010

Possible Hazard Identification: ■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ■ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: James T. Parker to FEDEX

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	MACTEC	6-3-2010/19:50			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Alaina Mangun	Company: TAL NC	Date/Time: 6/4/10 915

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TAL-0018 (1008)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** A0F040435
North Canton Facility

Client Macfee Project TK-Louisville By [signature] (Signature)
Cooler Received on 6/4/10 Opened on 6/4/10
FedEx [X] UPS [ ] DHL [ ] FAS [ ] Stetson [ ] Client Drop Off [ ] TestAmerica Courier [ ] Other
TestAmerica Cooler # A386 Multiple Coolers [ ] Foam Box [ ] Client Cooler [ ] Other

1. Were custody seals on the outside of the cooler(s)? Yes [X] No [X] Intact? Yes [X] No [ ] NA [ ]
   If YES, Quantity 1 Quantity Unsalvageable am 6/4/10
   Were custody seals on the outside of cooler(s) signed and dated? Yes [X] No [ ] NA [ ]
   Were custody seals on the bottle(s)? Yes [ ] No [X]
   If YES, are there any exceptions?
2. Shippers' packing slip attached to the cooler(s)? Yes [X] No [ ]
3. Did custody papers accompany the sample(s)? Yes [X] No [ ] Relinquished by client? Yes [X] No [ ]
4. Were the custody papers signed in the appropriate place? Yes [X] No [ ]
5. Packing material used: Bubble Wrap [X] Foam [ ] None [ ] Other paper towel
6. Cooler temperature upon receipt 2.7 °C See back of form for multiple coolers/temps [ ]
   METHOD: IR [X] Other [ ]
   COOLANT: Wet Ice [X] Blue Ice [ ] Dry Ice [ ] Water [ ] None [ ]
7. Did all bottles arrive in good condition (Unbroken)? Yes [X] No [ ]
8. Could all bottle labels be reconciled with the COC? Yes [X] No [ ]
9. Were sample(s) at the correct pH upon receipt? Yes [ ] No [ ] NA [X]
10. Were correct bottle(s) used for the test(s) indicated? Yes [X] No [ ]
11. Were air bubbles >6 mm in any VOA vials? Yes [ ] No [X] NA [ ]
12. Sufficient quantity received to perform indicated analyses? Yes [X] No [ ]
13. Was a trip blank present in the cooler(s)? Yes [X] No [ ] Were VOAs on the COC? Yes [X] No [ ]

Contacted PM AMD Date 6/4/10 by AM via Verbal [X] Voice Mail [ ] Other [ ]
Concerning 14 4 am 6/4/10

14. CHAIN OF CUSTODY

The following discrepancies occurred:

COC = MW-15, 11, 12 + 13, label = MW-15 PDB, 11 PDB, 12 PDB + 13 PDB, will log per label.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 121709-HNO_3; *Sulfuric Acid Lot#* 121709-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH*; *Hydrochloric Acid Lot#* 092006-*HCl*; *Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)?

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 6122090322

TK LOUISVILLE

Lot #: A0F260423

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

TESTAMERICA LABORATORIES, INC.

Alesia M. Danford

Approved for release.
Alesia M. Danford
Project Manager
7/14/2010 4:05 PM

Alesia M. Danford
Project Manager
alesia.danford@testamericainc.com

July 14, 2010

CASE NARRATIVE

A0F260423

The following report contains the analytical results for one water sample and one quality control sample submitted to TestAmerica North Canton by MACTEC Engineering & Consulting, Inc. from the TK Louisville Site, project number 6122090322. The samples were received June 26, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Terrell Parker and Rhonda Quinn on July 12, 2010, and Terrell Parker and Rhonda Quinn on July 13, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the reporting limit.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Alesia M. Danford, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.9°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

Sample(s) MW-25 had elevated reporting limits due to matrix interferences.

There were no client requested Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples in batch 0188101. Therefore, the laboratory has included a Laboratory Control Sample Duplicate (LCSD) in the QC batch. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A0F260423

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-25 06/24/10 17:20 001				
cis-1,2-Dichloroethene	820	83	ug/L	SW846 8260B
Trichloroethene	2800	83	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A0F260423

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B
Volatile Organics by GC/MS SIM	SW846 8260B SIM

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

A0F260423

ANALYTICAL METHOD	ANALYST	ANALYST ID
SW846 8260B	Richard J. Quayle	001904
SW846 8260B SIM	Richard J. Quayle	001904

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0F260423

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L3F50	001	MW-25	06/24/10	17:20
L3F51	002	TRIP BLANK	06/24/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-25

GC/MS Volatiles

Lot-Sample #...: A0F260423-001 **Work Order #...:** L3F501AC **Matrix.....:** WG
Date Sampled...: 06/24/10 17:20 **Date Received..:** 06/26/10
Prep Date.....: 07/06/10 **Analysis Date..:** 07/06/10
Prep Batch #...: 0188207
Dilution Factor: 83.33
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	83	ug/L	11
Benzene	ND	83	ug/L	11
Bromochloromethane	ND	83	ug/L	24
Bromodichloromethane	ND	83	ug/L	12
Bromoform	ND	83	ug/L	53
Bromomethane	ND	83	ug/L	34
n-Butylbenzene	ND	83	ug/L	10
sec-Butylbenzene	ND	83	ug/L	11
tert-Butylbenzene	ND	83	ug/L	11
Carbon tetrachloride	ND	83	ug/L	11
Chlorobenzene	ND	83	ug/L	12
Chlorodibromomethane	ND	83	ug/L	15
Chloroethane	ND	83	ug/L	24
Chloroform	ND	83	ug/L	13
Chloromethane	ND	83	ug/L	25
2-Chlorotoluene	ND	83	ug/L	9.2
4-Chlorotoluene	ND	83	ug/L	15
1,2-Dibromo-3-chloropropane (DBCP)	ND	170	ug/L	56
1,2-Dibromoethane	ND	83	ug/L	20
Dibromomethane	ND	83	ug/L	23
1,2-Dichlorobenzene	ND	83	ug/L	11
1,3-Dichlorobenzene	ND	83	ug/L	12
1,4-Dichlorobenzene	ND	83	ug/L	11
Dichlorodifluoromethane	ND	83	ug/L	26
1,1-Dichloroethane	ND	83	ug/L	12
1,2-Dichloroethane	ND	83	ug/L	18
cis-1,2-Dichloroethene	**820**	**83**	**ug/L**	**14**
trans-1,2-Dichloroethene	ND	83	ug/L	16
1,1-Dichloroethene	ND	83	ug/L	16
1,2-Dichloropropane	ND	83	ug/L	15
1,3-Dichloropropane	ND	83	ug/L	13
2,2-Dichloropropane	ND	83	ug/L	11
1,1-Dichloropropene	ND	83	ug/L	11
1,4-Dioxane	ND	4200	ug/L	1600
Ethylbenzene	ND	83	ug/L	14
Hexachlorobutadiene	ND	83	ug/L	25

(Continued on next page)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-25

GC/MS Volatiles

Lot-Sample #...: A0F260423-001 **Work Order #...:** L3F501AC **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	83	ug/L	10
Methylene chloride	ND	83	ug/L	27
Naphthalene	ND	83	ug/L	20
n-Propylbenzene	ND	83	ug/L	12
Styrene	ND	83	ug/L	9.2
1,1,1,2-Tetrachloroethane	ND	83	ug/L	19
1,1,2,2-Tetrachloroethane	ND	83	ug/L	15
Tetrachloroethene	ND	83	ug/L	24
Toluene	ND	83	ug/L	11
1,2,3-Trichlorobenzene	ND	83	ug/L	14
1,2,4-Trichloro-benzene	ND	83	ug/L	12
1,1,1-Trichloroethane	ND	83	ug/L	18
1,1,2-Trichloroethane	ND	83	ug/L	22
Trichloroethene	**2800**	**83**	**ug/L**	**14**
Trichlorofluoromethane	ND	83	ug/L	17
1,2,3-Trichloropropane	ND	83	ug/L	36
1,2,4-Trimethylbenzene	ND	83	ug/L	10
1,3,5-Trimethylbenzene	ND	83	ug/L	8.0
Vinyl chloride	ND	83	ug/L	18
m-Xylene & p-Xylene	ND	170	ug/L	20
o-Xylene	ND	83	ug/L	12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-25

GC/MS Volatiles

Lot-Sample #...: A0F260423-001	**Work Order #...:** L3F501AA		**Matrix.....:** WG
Date Sampled...: 06/24/10 17:20	**Date Received..:** 06/26/10		
Prep Date.....: 07/06/10	**Analysis Date..:** 07/06/10		
Prep Batch #...: 0188101			
Dilution Factor: 8.33			
Analyst ID.....: 001904	**Instrument ID..:** UX16		
	Method.....: SW846 8260B SIM		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	17	ug/L	2.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	92	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0F260423-002 **Work Order #...:** L3F511AA **Matrix.....:** WQ
Date Sampled...: 06/24/10 **Date Received..:** 06/26/10
Prep Date.....: 07/06/10 **Analysis Date..:** 07/06/10
Prep Batch #...: 0188207
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

(Continued on next page)

MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0F260423-002 **Work Order #...:** L3F511AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	86	(74 - 116)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F260423 **Work Order #...:** L3VR81AA **Matrix.....:** WATER
MB Lot-Sample #: A0G070000-207

Prep Date.....: 07/06/10 **Instrument ID..:** UX10
Analysis Date..: 07/06/10 **Prep Batch #...:** 0188207
Dilution Factor: 1

Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	50	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F260423 **Work Order #...:** L3VR81AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0F260423
MB Lot-Sample #: A0G070000-101

Work Order #...: L3VE31AA

Matrix.....: WATER

Prep Date.....: 07/06/10
Prep Batch #...: 0188101

Instrument ID..: UX16

Analysis Date..: 07/06/10
Dilution Factor: 1

Analyst ID.....: 001904

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,4-Dioxane	ND	2.0	ug/L	SW846 8260B SIM

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	97	(61 - 128)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F260423 **Work Order #...:** L3VR81AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0G070000-207 L3VR81AD-LCSD
Prep Date.....: 07/06/10 **Analysis Date..:** 07/06/10
Prep Batch #...: 0188207
Dilution Factor: 1 **Instrument ID..:** UX10
Analyst ID.....: 001904

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**114**	**(63 - 130)**			**SW846 8260B**
	109	**(63 - 130)**	**5.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**102**	**(75 - 122)**			**SW846 8260B**
	98	**(75 - 122)**	**4.1**	**(0-20)**	**SW846 8260B**
Benzene	**101**	**(80 - 116)**			**SW846 8260B**
	99	**(80 - 116)**	**2.6**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(74 - 119)**			**SW846 8260B**
	95	**(74 - 119)**	**0.76**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**2.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	93	(61 - 128)
	87	(61 - 128)
Toluene-d8	100	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	93	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F260423 **Work Order #...:** L3VE31AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0G070000-101 L3VE31AD-LCSD
Prep Date.....: 07/06/10 **Analysis Date..:** 07/06/10
Prep Batch #...: 0188101
Dilution Factor: 1 **Instrument ID..:** UX16
Analyst ID.....: 001904

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,4-Dioxane	**83**	**(50 - 150)**			**SW846 8260B SIM**
	95	**(50 - 150)**	**13**	**(0-30)**	**SW846 8260B SIM**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	94	(61 - 128)
	95	(61 - 128)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0F260423 **Work Order #...:** L3EFC1AJ-MS **Matrix.....:** WATER
MS Lot-Sample #: A0F250411-001 L3EFC1AK-MSD
Date Sampled...: 06/24/10 07:35 **Date Received..:** 06/25/10
Prep Date.....: 07/07/10 **Analysis Date..:** 07/07/10
Prep Batch #...: 0188207
Dilution Factor: 200 **Analyst ID.....:** 001904 **Instrument ID..:** UX10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	112	(62 - 130)			SW846 8260B
	117	(62 - 130)	4.1	(0-20)	SW846 8260B
Trichloroethene	99	(62 - 130)			SW846 8260B
	103	(62 - 130)	2.2	(0-20)	SW846 8260B
Benzene	99	(78 - 118)			SW846 8260B
	101	(78 - 118)	1.9	(0-20)	SW846 8260B
Toluene	94	(70 - 119)			SW846 8260B
	97	(70 - 119)	3.8	(0-20)	SW846 8260B
Chlorobenzene	96	(76 - 117)			SW846 8260B
	99	(76 - 117)	2.9	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
	91	(61 - 128)
Toluene-d8	100	(76 - 110)
	100	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	94	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: MACTEC	Client Project Manager: MRS. R. QUINN	Site Contact:	Lab Contact:	COC No:
Address: 3200 TOWN PT. DR. #100	Telephone: 770-4213400	Telephone:	Telephone:	1 of 1 COCs
City/State/Zip: KENNESAW, GA 30144	Email: RNQUINN@MACTEC.COM			
Phone: 770 421-3400		TAT if different from below _____ ☐ 3 weeks ☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: TK LOUISVILLE	Method of Shipment/Carrier: FEDEX			
Project Number: 6122 09 0322	Shipping/Tracking No: 8473 7862 1240			
PO#				

Analyses

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:			826DB SITE SPECIFIC	SIM (14 DIOXANE)	Sample Specific Notes / Special Instructions:
MW-25	6/24/10	1720		X						5					NG		X	X	
TRIP BLANK	6/24/10			X						1							X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	MACTEC	6/25/10 1800			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAL	Date/Time: 4-26-10 1010

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TAL-0018 (1008)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 440260423
North Canton Facility

Client MACTEC Project TK Louisville By: [signature]
Cooler Received on 6/26/10 Opened on 6-26-10 (Signature)
FedEx ☑ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☑ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☐ No ☑ Intact? Yes ☐ No ☐ NA ☑
   If YES, Quantity _____ Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☐ No ☐ NA ☑
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☐ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 1.9 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☑
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 051010-HNO_3; *Sulfuric Acid Lot#* 121709-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN$/*NaOH*. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

AES
Analytical Environmental Services, Inc.,
3785 Presidential Parkway
Atlanta, GA 30340

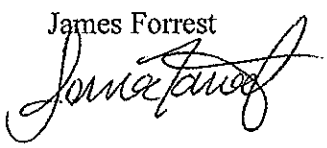
Stipulation of Approval for Commercial Laboratory

According to Georgia State Law (O.C.G.A. 12-2-9) Commercial Rules for Commercial Laboratory Accreditation, any person submitting data to EPD prepared by a commercial laboratory shall stipulate that the laboratory is approved (Chapter 391-3-26-.05). The following information is provided as requested.

Laboratory	Analytical Environmental Services, Inc. (AES) 3785 Presidential Parkway, NE Atlanta, GA 30340 (770) 457-8177
Accredited By:	State of Florida, Department of Health, Bureau of Laboratories; Accrediting NELAP Authority
Accreditation ID:	E87582
Scope:	Clean Water Act – Extractable Organics, General Chemistry, Metals, Microbiology, Pesticides-Herbicides, PCBs, Volatile Organics RCRA/CERCLA – Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides, PCBs, Volatile Organics
Effective:	July 1, 2010
Expires:	June 30, 2011

I further certify that the sample(s) for which this data is being submitted has been handled pursuant to the appropriate chain of custody. Any question regarding this stipulation of approval may be directed to AES at 770 457-8177. Thank you for your business and please do not hesitate contacting us if we can be of further assistance.

James Forrest



July 15, 2010
Project Manager

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 28, 2010

Rhonda Quinn
Mactec Engineering and Consulting, Inc.
3200 Town Point Dr.
Kennesaw GA 30144

TEL: (770) 421-3400
FAX: (770) 421-3486

RE: Thermo King

Dear Rhonda Quinn: Order No: 1010H38

Analytical Environmental Services, Inc. received 4 samples on 10/21/2010 10:25:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/10-06/30/11.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/11.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

James Forrest
Project Manager

3785 PRESIDENTIAL PARKWAY • ATLANTA, GEORGIA 30340 • TEL: (770) 457-8177 • FAX: (770)457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1010 H38

Date: 10-20-10 Page 1 of 1

Page 2 of 17

COMPANY: MACTEC

ADDRESS: 3200 Town Point Dr Kennesaw, GA

PHONE: 770-421-3400

FAX: 770-421-3486

SAMPLED BY: Jeff Moore

SIGNATURE: [signature]

ANALYSIS REQUESTED: 8260B

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) H+I	REMARKS	No # of Containers
1	HMW28-102010	10-20-10	10:17	✓		GW	2	Site-Specific	
2	HMW27-102010	10-20-10	11:12	✓		GW	2	Volatiles	
3	HMW26-102010	10-20-10	12:52	✓		GW	2	Plus 1,4 dioxane	
4	Trip Blank						2		
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	10-20-10 5:00	1: [signature]	10/21/10
2:		2:	10:25
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS: Site Specific + 1,4 Dioxane

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Thermo King
PROJECT #: 6122-09-0322
SITE ADDRESS: Louisville, GA
SEND REPORT TO: Rhonda Quinn
INVOICE TO: (IF DIFFERENT FROM ABOVE) MACTEC - Alpharetta
QUOTE #: PO#:

RECEIPT
Total # of Containers

Turnaround Time Request
- ● Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other_____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 28-Oct-10

Client: Mactec Engineering and Consulting, Inc.
Project: Thermo King
Lab ID: 1010H38

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

Percent recovery for the internal standard compound 1,4-Dichlorobenzene-d4 on sample 1010H38-001A was outside control limits biased low due to suspected matrix interference. All other internal standard recoveries were within control limits.

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	HMW28-102010
Project:	Thermo King	**Collection Date:**	10/20/2010 10:17:00 AM
Lab ID:	1010H38-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**			
1,1,1-Trichloroethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,1,2-Trichloroethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,1-Dichloroethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,1-Dichloroethene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,2-Dibromoethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,2-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,2-Dichloroethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,2-Dichloropropane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,3-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,4-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
1,4-Dioxane	BRL	150		ug/L	137028	1	10/25/2010 10:51	SB
2-Butanone	BRL	50		ug/L	137028	1	10/25/2010 10:51	SB
2-Hexanone	BRL	10		ug/L	137028	1	10/25/2010 10:51	SB
4-Methyl-2-pentanone	BRL	10		ug/L	137028	1	10/25/2010 10:51	SB
Acetone	BRL	50		ug/L	137028	1	10/25/2010 10:51	SB
Benzene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Bromodichloromethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Bromoform	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Bromomethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Carbon disulfide	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Carbon tetrachloride	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Chlorobenzene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Chloroethane	BRL	10		ug/L	137028	1	10/25/2010 10:51	SB
Chloroform	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Chloromethane	BRL	10		ug/L	137028	1	10/25/2010 10:51	SB
cis-1,2-Dichloroethene	9.4	5.0		ug/L	137028	1	10/25/2010 10:51	SB
cis-1,3-Dichloropropene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Cyclohexane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Dibromochloromethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Dichlorodifluoromethane	BRL	10		ug/L	137028	1	10/25/2010 10:51	SB
Ethylbenzene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Freon-113	BRL	10		ug/L	137028	1	10/25/2010 10:51	SB
Isopropylbenzene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Methyl acetate	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Methyl tert-butyl ether	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Methylcyclohexane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Methylene chloride	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Styrene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	HMW28-102010
Project:	Thermo King	**Collection Date:**	10/20/2010 10:17:00 AM
Lab ID:	1010H38-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Tetrachloroethene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Toluene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
trans-1,3-Dichloropropene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Trichloroethene	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Trichlorofluoromethane	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Vinyl chloride	BRL	2.0		ug/L	137028	1	10/25/2010 10:51	SB
Xylenes, Total	BRL	5.0		ug/L	137028	1	10/25/2010 10:51	SB
Surr: 4-Bromofluorobenzene	88	64.7-130		%REC	137028	1	10/25/2010 10:51	SB
Surr: Dibromofluoromethane	114	80.7-129		%REC	137028	1	10/25/2010 10:51	SB
Surr: Toluene-d8	92.6	71.1-120		%REC	137028	1	10/25/2010 10:51	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	HMW27-102010
Project:	Thermo King	**Collection Date:**	10/20/2010 11:12:00 AM
Lab ID:	1010H38-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,1,2-Trichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,1-Dichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,1-Dichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,2-Dibromoethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,2-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,2-Dichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,2-Dichloropropane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,3-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,4-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
1,4-Dioxane	BRL	150		ug/L	137028	1	10/22/2010 22:41	SB
2-Butanone	BRL	50		ug/L	137028	1	10/22/2010 22:41	SB
2-Hexanone	BRL	10		ug/L	137028	1	10/22/2010 22:41	SB
4-Methyl-2-pentanone	BRL	10		ug/L	137028	1	10/22/2010 22:41	SB
Acetone	BRL	50		ug/L	137028	1	10/22/2010 22:41	SB
Benzene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Bromodichloromethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Bromoform	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Bromomethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Carbon disulfide	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Carbon tetrachloride	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Chlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Chloroethane	BRL	10		ug/L	137028	1	10/22/2010 22:41	SB
Chloroform	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Chloromethane	BRL	10		ug/L	137028	1	10/22/2010 22:41	SB
cis-1,2-Dichloroethene	5.2	5.0		ug/L	137028	1	10/22/2010 22:41	SB
cis-1,3-Dichloropropene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Cyclohexane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Dibromochloromethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Dichlorodifluoromethane	BRL	10		ug/L	137028	1	10/22/2010 22:41	SB
Ethylbenzene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Freon-113	BRL	10		ug/L	137028	1	10/22/2010 22:41	SB
Isopropylbenzene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Methyl acetate	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Methyl tert-butyl ether	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Methylcyclohexane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Methylene chloride	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Styrene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	HMW27-102010
Project:	Thermo King	**Collection Date:**	10/20/2010 11:12:00 AM
Lab ID:	1010H38-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Tetrachloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Toluene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
trans-1,3-Dichloropropene	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Trichloroethene	10	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Trichlorofluoromethane	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Vinyl chloride	BRL	2.0		ug/L	137028	1	10/22/2010 22:41	SB
Xylenes, Total	BRL	5.0		ug/L	137028	1	10/22/2010 22:41	SB
Surr: 4-Bromofluorobenzene	86.1	64.7-130		%REC	137028	1	10/22/2010 22:41	SB
Surr: Dibromofluoromethane	110	80.7-129		%REC	137028	1	10/22/2010 22:41	SB
Surr: Toluene-d8	93.7	71.1-120		%REC	137028	1	10/22/2010 22:41	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	HMW26-102010
Project:	Thermo King	**Collection Date:**	10/20/2010 12:52:00 PM
Lab ID:	1010H38-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,1,2-Trichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,1-Dichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,1-Dichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,2-Dibromoethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,2-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,2-Dichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,2-Dichloropropane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,3-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,4-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
1,4-Dioxane	BRL	150		ug/L	137028	1	10/22/2010 23:08	SB
2-Butanone	BRL	50		ug/L	137028	1	10/22/2010 23:08	SB
2-Hexanone	BRL	10		ug/L	137028	1	10/22/2010 23:08	SB
4-Methyl-2-pentanone	BRL	10		ug/L	137028	1	10/22/2010 23:08	SB
Acetone	BRL	50		ug/L	137028	1	10/22/2010 23:08	SB
Benzene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Bromodichloromethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Bromoform	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Bromomethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Carbon disulfide	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Carbon tetrachloride	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Chlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Chloroethane	BRL	10		ug/L	137028	1	10/22/2010 23:08	SB
Chloroform	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Chloromethane	BRL	10		ug/L	137028	1	10/22/2010 23:08	SB
cis-1,2-Dichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
cis-1,3-Dichloropropene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Cyclohexane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Dibromochloromethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Dichlorodifluoromethane	BRL	10		ug/L	137028	1	10/22/2010 23:08	SB
Ethylbenzene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Freon-113	BRL	10		ug/L	137028	1	10/22/2010 23:08	SB
Isopropylbenzene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Methyl acetate	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Methyl tert-butyl ether	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Methylcyclohexane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Methylene chloride	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Styrene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	HMW26-102010
Project:	Thermo King	**Collection Date:**	10/20/2010 12:52:00 PM
Lab ID:	1010H38-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)			
Tetrachloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Toluene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
trans-1,3-Dichloropropene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Trichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Trichlorofluoromethane	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Vinyl chloride	BRL	2.0		ug/L	137028	1	10/22/2010 23:08	SB
Xylenes, Total	BRL	5.0		ug/L	137028	1	10/22/2010 23:08	SB
Surr: 4-Bromofluorobenzene	93.7	64.7-130		%REC	137028	1	10/22/2010 23:08	SB
Surr: Dibromofluoromethane	111	80.7-129		%REC	137028	1	10/22/2010 23:08	SB
Surr: Toluene-d8	95.9	71.1-120		%REC	137028	1	10/22/2010 23:08	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	TRIP BLANK
Project:	Thermo King	**Collection Date:**	10/20/2010
Lab ID:	1010H38-004	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,1,2-Trichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,1-Dichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,1-Dichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,2-Dibromoethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,2-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,2-Dichloroethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,2-Dichloropropane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,3-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,4-Dichlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
1,4-Dioxane	BRL	150		ug/L	137028	1	10/22/2010 21:18	SB
2-Butanone	BRL	50		ug/L	137028	1	10/22/2010 21:18	SB
2-Hexanone	BRL	10		ug/L	137028	1	10/22/2010 21:18	SB
4-Methyl-2-pentanone	BRL	10		ug/L	137028	1	10/22/2010 21:18	SB
Acetone	BRL	50		ug/L	137028	1	10/22/2010 21:18	SB
Benzene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Bromodichloromethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Bromoform	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Bromomethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Carbon disulfide	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Carbon tetrachloride	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Chlorobenzene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Chloroethane	BRL	10		ug/L	137028	1	10/22/2010 21:18	SB
Chloroform	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Chloromethane	BRL	10		ug/L	137028	1	10/22/2010 21:18	SB
cis-1,2-Dichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
cis-1,3-Dichloropropene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Cyclohexane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Dibromochloromethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Dichlorodifluoromethane	BRL	10		ug/L	137028	1	10/22/2010 21:18	SB
Ethylbenzene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Freon-113	BRL	10		ug/L	137028	1	10/22/2010 21:18	SB
Isopropylbenzene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Methyl acetate	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Methyl tert-butyl ether	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Methylcyclohexane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Methylene chloride	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Styrene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	TRIP BLANK
Project:	Thermo King	**Collection Date:**	10/20/2010
Lab ID:	1010H38-004	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Tetrachloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Toluene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
trans-1,3-Dichloropropene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Trichloroethene	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Trichlorofluoromethane	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Vinyl chloride	BRL	2.0		ug/L	137028	1	10/22/2010 21:18	SB
Xylenes, Total	BRL	5.0		ug/L	137028	1	10/22/2010 21:18	SB
Surr: 4-Bromofluorobenzene	97.1	64.7-130		%REC	137028	1	10/22/2010 21:18	SB
Surr: Dibromofluoromethane	117	80.7-129		%REC	137028	1	10/22/2010 21:18	SB
Surr: Toluene-d8	95.7	71.1-120		%REC	137028	1	10/22/2010 21:18	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Mactec Work Order Number 1010438

Checklist completed by [signature] 10/21/10
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes ✓ No __ Not Present __

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.1C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good __ ~~Other~~(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Analytical Environmental Services, Inc

Date: 28-Oct-10

Client: Mactec Engineering and Consulting, Inc.
Project: Thermo King
Lab Order: 1010H38

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1010H38-001A	HMW28-102010	10/20/2010 10:17:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/22/2010	10/25/2010
1010H38-002A	HMW27-102010	10/20/2010 11:12:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/22/2010	10/22/2010
1010H38-003A	HMW26-102010	10/20/2010 12:52:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/22/2010	10/22/2010
1010H38-004A	TRIP BLANK	10/20/2010 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/22/2010	10/22/2010

Client: Mactec Engineering and Consulting, Inc.
Project Name: Thermo King
Workorder: 1010H38

ANALYTICAL QC SUMMARY REPORT

BatchID: 137028

Sample ID: **MB-137028** Client ID: Units: **ug/L** Prep Date: **10/22/2010** Run No: **183035**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **137028** Analysis Date: **10/22/2010** Seq No: **3810905**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dioxane	BRL	150	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	50	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Mactec Engineering and Consulting, Inc.
Project Name: Thermo King
Workorder: 1010H38

ANALYTICAL QC SUMMARY REPORT

BatchID: 137028

Sample ID: **MB-137028** Client ID:
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** Prep Date: **10/22/2010** Run No: **183035**
BatchID: **137028** Analysis Date: **10/22/2010** Seq No: **3810905**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	47.05	0	50	0	94.1	64.7	130	0	0	0	
Surr: Dibromofluoromethane	55.21	0	50	0	110	80.7	129	0	0	0	
Surr: Toluene-d8	45.22	0	50	0	90.4	71.1	120	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Mactec Engineering and Consulting, Inc.
Project Name: Thermo King
Workorder: 1010H38

ANALYTICAL QC SUMMARY REPORT

BatchID: 137028

Sample ID: **LCS-137028** Client ID: Units: **ug/L** Prep Date: **10/22/2010** Run No: **183035**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **137028** Analysis Date: **10/22/2010** Seq No: **3810921**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	66.54	5.0	50	0	133	51	154	0	0	0	
Benzene	57.03	5.0	50	0	114	73.6	129	0	0	0	
Chlorobenzene	50.35	5.0	50	0	101	77.6	125	0	0	0	
Toluene	57.61	5.0	50	0	115	75.7	128	0	0	0	
Trichloroethene	60.37	5.0	50	0	121	73.9	132	0	0	0	
Surr: 4-Bromofluorobenzene	53.35	0	50	0	107	64.7	130	0	0	0	
Surr: Dibromofluoromethane	58.42	0	50	0	117	80.7	129	0	0	0	
Surr: Toluene-d8	51.22	0	50	0	102	71.1	120	0	0	0	

Sample ID: **1010H38-001AMS** Client ID: **HMW28-102010** Units: **ug/L** Prep Date: **10/22/2010** Run No: **183035**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **137028** Analysis Date: **10/22/2010** Seq No: **3810929**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	69.01	5.0	50	0	138	46.2	183	0	0	0	
Benzene	60.91	5.0	50	0	122	62.2	143	0	0	0	
Chlorobenzene	54.39	5.0	50	0	109	72.2	137	0	0	0	
Toluene	61.74	5.0	50	0	123	57.8	149	0	0	0	
Trichloroethene	68.06	5.0	50	3.280	130	70.5	149	0	0	0	
Surr: 4-Bromofluorobenzene	56.75	0	50	0	114	64.7	130	0	0	0	
Surr: Dibromofluoromethane	57.59	0	50	0	115	80.7	129	0	0	0	
Surr: Toluene-d8	53.30	0	50	0	107	71.1	120	0	0	0	

Sample ID: **1010H38-001AMSD** Client ID: **HMW28-102010** Units: **ug/L** Prep Date: **10/22/2010** Run No: **183035**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **137028** Analysis Date: **10/22/2010** Seq No: **3810931**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	67.81	5.0	50	0	136	46.2	183	69.01	1.75	20	
Benzene	56.66	5.0	50	0	113	62.2	143	60.91	7.23	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Mactec Engineering and Consulting, Inc.
Project Name: Thermo King
Workorder: 1010H38

ANALYTICAL QC SUMMARY REPORT

BatchID: 137028

Sample ID: **1010H38-001AMSD** Client ID: **HMW28-102010** Units: **ug/L** Prep Date: **10/22/2010** Run No: **183035**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **137028** Analysis Date: **10/22/2010** Seq No: **3810931**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	52.19	5.0	50	0	104	72.2	137	54.39	4.13	20	
Toluene	56.03	5.0	50	0	112	57.8	149	61.74	9.7	20	
Trichloroethene	61.91	5.0	50	3.280	117	70.5	149	68.06	9.46	20	
Surr: 4-Bromofluorobenzene	54.72	0	50	0	109	64.7	130	56.75	0	0	
Surr: Dibromofluoromethane	56.99	0	50	0	114	80.7	129	57.59	0	0	
Surr: Toluene-d8	51.85	0	50	0	104	71.1	120	53.30	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

SEEP and SURFACE WATER

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 6122-09-0322,02

TK - LOUISVILLE

Lot #: A0D230511

Rhonda Quinn

MACTEC Engineering & Consultin
3200 Town Point Drive NW
Suite 100
Kennesaw, GA 30144

TESTAMERICA LABORATORIES, INC.

Alesia M. Danford

Approved for release.
Alesia M. Danford
Project Manager
6/11/2010 10:11 AM

Alesia M. Danford
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May 10, 2010

TestAmerica Laboratories, Inc.
TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330)497-9396 Fax (330)497-0772 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

A0D230511

The following report contains the analytical results for twelve water samples and one quality control sample submitted to TestAmerica North Canton by MACTEC Engineering & Consulting, Inc. from the TK - Louisville Site, project number 6122-09-0322,02. The samples were received April 23, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Rhonda Quinn on May 07, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the reporting limit.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Alesia M. Danford, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.0°C.

GC/MS VOLATILES

There were no client requested Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples in batch(es) 0125429. Therefore, the laboratory has included a Laboratory Control Sample Duplicate (LCSD) in the QC batch. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available ~~upon request.~~
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A0D230511

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SEEP G 04/21/10 15:30 001				
cis-1,2-Dichloroethene	7.7	2.5	ug/L	SW846 8260B
Trichloroethene	7.8	5.0	ug/L	SW846 8260B
SEEP C 04/21/10 13:30 004				
cis-1,2-Dichloroethene	12	12	ug/L	SW846 8260B
1,1-Dichloroethene	64	12	ug/L	SW846 8260B
1,1,1-Trichloroethane	28	12	ug/L	SW846 8260B
Trichloroethene	500	12	ug/L	SW846 8260B
SEEP H 04/21/10 14:10 005				
cis-1,2-Dichloroethene	26	2.5	ug/L	SW846 8260B
1,1-Dichloroethene	6.0	5.0	ug/L	SW846 8260B
Trichloroethene	38	5.0	ug/L	SW846 8260B
SEEP K 04/22/10 10:05 009				
cis-1,2-Dichloroethene	5.3	2.5	ug/L	SW846 8260B
Trichloroethene	5.8	5.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A0D230511

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

A0D230511

ANALYTICAL METHOD	ANALYST	ANALYST ID
SW846 8260B	Timothy J. Lavey	001903

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0D230511

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L0FG8	001	SEEP G	04/21/10	15:30
L0FHC	002	MB #16	04/21/10	16:20
L0FHE	003	SEEP D	04/21/10	15:55
L0FHH	004	SEEP C	04/21/10	13:30
L0FHL	005	SEEP H	04/21/10	14:10
L0FHM	006	SEEP #2	04/21/10	17:30
L0FHN	007	MB #15	04/21/10	16:40
L0FHQ	008	SEEP J	04/22/10	10:30
L0FHT	009	SEEP K	04/22/10	10:05
L0FHX	010	MB #14	04/22/10	08:50
L0FH0	011	SEEP I	04/22/10	11:05
L0FH1	012	TRIP BLANK 42210	04/22/10	17:00
L0FH3	013	DUP-01	04/22/10	12:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A0D230511-001 **Work Order #...:** L0FG81AA **Matrix.....:** WG
Date Sampled...: 04/21/10 15:30 **Date Received..:** 04/23/10
Prep Date.....: 05/03/10 **Analysis Date..:** 05/03/10
Prep Batch #...: 0124369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	**7.7**	**2.5**	**ug/L**
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP G

GC/MS Volatiles

Lot-Sample #...: A0D230511-001 **Work Order #...:** L0FG81AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	**7.8**	**5.0**	**ug/L**
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(78 - 115)
1,2-Dichloroethane-d4	106	(77 - 120)
Toluene-d8	102	(78 - 111)
4-Bromofluorobenzene	95	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: MB #16

GC/MS Volatiles

Lot-Sample #...: A0D230511-002 **Work Order #...:** L0FHC1AA **Matrix.....:** WG
Date Sampled...: 04/21/10 16:20 **Date Received..:** 04/23/10
Prep Date.....: 05/03/10 **Analysis Date..:** 05/03/10
Prep Batch #...: 0124369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MB #16

GC/MS Volatiles

Lot-Sample #...: A0D230511-002 **Work Order #...:** L0FHC1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(78 - 115)
1,2-Dichloroethane-d4	105	(77 - 120)
Toluene-d8	101	(78 - 111)
4-Bromofluorobenzene	93	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A0D230511-003 **Work Order #...:** L0FHE1AA **Matrix.....:** WG
Date Sampled...: 04/21/10 15:55 **Date Received..:** 04/23/10
Prep Date.....: 05/03/10 **Analysis Date..:** 05/03/10
Prep Batch #...: 0124369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP D

GC/MS Volatiles

Lot-Sample #...: A0D230511-003 **Work Order #...:** L0FHE1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	113	(78 - 115)
1,2-Dichloroethane-d4	104	(77 - 120)
Toluene-d8	102	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A0D230511-004 **Work Order #...:** L0FHH1AA **Matrix.....:** WG
Date Sampled...: 04/21/10 13:30 **Date Received..:** 04/23/10
Prep Date.....: 05/05/10 **Analysis Date..:** 05/05/10
Prep Batch #...: 0125429
Dilution Factor: 2.5 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	12	ug/L
Bromobenzene	ND	12	ug/L
Bromochloromethane	ND	12	ug/L
Bromodichloromethane	ND	12	ug/L
Bromoform	ND	12	ug/L
Bromomethane	ND	25	ug/L
n-Butylbenzene	ND	12	ug/L
sec-Butylbenzene	ND	12	ug/L
tert-Butylbenzene	ND	12	ug/L
Carbon tetrachloride	ND	12	ug/L
Chlorobenzene	ND	12	ug/L
Chlorodibromomethane	ND	12	ug/L
Chloroethane	ND	25	ug/L
Chloroform	ND	12	ug/L
Chloromethane	ND	25	ug/L
2-Chlorotoluene	ND	12	ug/L
4-Chlorotoluene	ND	12	ug/L
1,2-Dibromo-3-chloro-propane	ND	25	ug/L
1,2-Dibromoethane	ND	12	ug/L
Dibromomethane	ND	12	ug/L
1,2-Dichlorobenzene	ND	12	ug/L
1,3-Dichlorobenzene	ND	12	ug/L
1,4-Dichlorobenzene	ND	12	ug/L
Dichlorodifluoromethane	ND	25	ug/L
1,1-Dichloroethane	ND	12	ug/L
1,2-Dichloroethane	ND	12	ug/L
cis-1,2-Dichloroethene	**12**	**12**	**ug/L**
trans-1,2-Dichloroethene	ND	12	ug/L
1,1-Dichloroethene	**64**	**12**	**ug/L**
1,2-Dichloropropane	ND	12	ug/L
1,3-Dichloropropane	ND	12	ug/L
2,2-Dichloropropane	ND	12	ug/L
1,1-Dichloropropene	ND	12	ug/L
1,4-Dioxane	ND	620	ug/L
Ethylbenzene	ND	12	ug/L
Hexachlorobutadiene	ND	12	ug/L
Isopropylbenzene	ND	12	ug/L
p-Isopropyltoluene	ND	12	ug/L

(Continued on next page)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A0D230511-004 **Work Order #...:** L0FHH1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	12	ug/L
Naphthalene	ND	12	ug/L
n-Propylbenzene	ND	12	ug/L
Styrene	ND	12	ug/L
1,1,1,2-Tetrachloroethane	ND	12	ug/L
1,1,2,2-Tetrachloroethane	ND	12	ug/L
Tetrachloroethene	ND	12	ug/L
Toluene	ND	12	ug/L
1,2,3-Trichlorobenzene	ND	12	ug/L
1,2,4-Trichloro-benzene	ND	12	ug/L
1,1,1-Trichloroethane	**28**	**12**	**ug/L**
1,1,2-Trichloroethane	ND	12	ug/L
Trichloroethene	**500**	**12**	**ug/L**
Trichlorofluoromethane	ND	25	ug/L
1,2,3-Trichloropropane	ND	12	ug/L
1,2,4-Trimethylbenzene	ND	12	ug/L
1,3,5-Trimethylbenzene	ND	12	ug/L
Vinyl chloride	ND	12	ug/L
m-Xylene & p-Xylene	ND	12	ug/L
o-Xylene	ND	12	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(78 - 115)
1,2-Dichloroethane-d4	107	(77 - 120)
Toluene-d8	106	(78 - 111)
4-Bromofluorobenzene	92	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A0D230511-005 **Work Order #...:** L0FHL1AA **Matrix.....:** WG
Date Sampled...: 04/21/10 14:10 **Date Received..:** 04/23/10
Prep Date.....: 05/03/10 **Analysis Date..:** 05/03/10
Prep Batch #...: 0124369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	**26**	**2.5**	**ug/L**
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	**6.0**	**5.0**	**ug/L**
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A0D230511-005 **Work Order #...:** L0FHL1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	**38**	**5.0**	**ug/L**
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	113	(78 - 115)
1,2-Dichloroethane-d4	105	(77 - 120)
Toluene-d8	102	(78 - 111)
4-Bromofluorobenzene	92	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A0D230511-006 **Work Order #...:** L0FHM1AA **Matrix.....:** WG
Date Sampled...: 04/21/10 17:30 **Date Received..:** 04/23/10
Prep Date.....: 05/03/10 **Analysis Date..:** 05/03/10
Prep Batch #...: 0124369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP #2

GC/MS Volatiles

Lot-Sample #...: A0D230511-006 **Work Order #...:** L0FHM1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(78 - 115)
1,2-Dichloroethane-d4	106	(77 - 120)
Toluene-d8	101	(78 - 111)
4-Bromofluorobenzene	92	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: MB #15

GC/MS Volatiles

Lot-Sample #...: A0D230511-007 Work Order #...: L0FHN1AA Matrix.....: WG
Date Sampled...: 04/21/10 16:40 Date Received..: 04/23/10
Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
Prep Batch #...: 0124369
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MB #15

GC/MS Volatiles

Lot-Sample #...: A0D230511-007 **Work Order #...:** L0FHN1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	114	(78 - 115)
1,2-Dichloroethane-d4	105	(77 - 120)
Toluene-d8	101	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A0D230511-008 Work Order #...: L0FHQ1AA Matrix.....: WG
Date Sampled...: 04/22/10 10:30 Date Received..: 04/23/10
Prep Date.....: 05/04/10 Analysis Date..: 05/04/10
Prep Batch #...: 0124369
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP J

GC/MS Volatiles

Lot-Sample #...: A0D230511-008 **Work Order #...:** L0FHQ1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(78 - 115)
1,2-Dichloroethane-d4	112	(77 - 120)
Toluene-d8	101	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A0D230511-009 **Work Order #...:** L0FHT1AA **Matrix.....:** WG
Date Sampled...: 04/22/10 10:05 **Date Received..:** 04/23/10
Prep Date.....: 05/04/10 **Analysis Date..:** 05/04/10
Prep Batch #...: 0124369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	**5.3**	**2.5**	**ug/L**
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP K

GC/MS Volatiles

Lot-Sample #...: A0D230511-009 **Work Order #...:** L0FHT1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	**5.8**	**5.0**	**ug/L**
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	115	(78 - 115)
1,2-Dichloroethane-d4	109	(77 - 120)
Toluene-d8	101	(78 - 111)
4-Bromofluorobenzene	89	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: MB #14

GC/MS Volatiles

Lot-Sample #...: A0D230511-010 **Work Order #...:** L0FHX1AA **Matrix.....:** WG
Date Sampled...: 04/22/10 08:50 **Date Received..:** 04/23/10
Prep Date.....: 05/04/10 **Analysis Date..:** 05/04/10
Prep Batch #...: 0124369
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MB #14

GC/MS Volatiles

Lot-Sample #...: A0D230511-010 **Work Order #...:** L0FHX1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	115	(78 - 115)
1,2-Dichloroethane-d4	109	(77 - 120)
Toluene-d8	102	(78 - 111)
4-Bromofluorobenzene	94	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A0D230511-011 **Work Order #...:** L0FH01AA **Matrix.....:** WG
Date Sampled...: 04/22/10 11:05 **Date Received..:** 04/23/10
Prep Date.....: 05/05/10 **Analysis Date..:** 05/05/10
Prep Batch #...: 0125429
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP I

GC/MS Volatiles

Lot-Sample #...: A0D230511-011 **Work Order #...:** L0FH01AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(78 - 115)
1,2-Dichloroethane-d4	103	(77 - 120)
Toluene-d8	104	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK 42210

GC/MS Volatiles

Lot-Sample #...: A0D230511-012 **Work Order #...:** L0FH11AA **Matrix.....:** WQ
Date Sampled...: 04/22/10 17:00 **Date Received..:** 04/23/10
Prep Date.....: 05/05/10 **Analysis Date..:** 05/05/10
Prep Batch #...: 0125429
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

(Continued on next page)

MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK 42210

GC/MS Volatiles

Lot-Sample #...: A0D230511-012 **Work Order #...:** L0FH11AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(78 - 115)
1,2-Dichloroethane-d4	108	(77 - 120)
Toluene-d8	105	(78 - 111)
4-Bromofluorobenzene	90	(80 - 114)

MACTEC Engineering and Consulting Inc

Client Sample ID: DUP-01

GC/MS Volatiles

Lot-Sample #...: A0D230511-013 **Work Order #...:** L0FH31AA **Matrix.....:** WG
Date Sampled...: 04/22/10 12:00 **Date Received..:** 04/23/10
Prep Date.....: 05/05/10 **Analysis Date..:** 05/05/10
Prep Batch #...: 0125429
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	250	ug/L
Ethylbenzene	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: DUP-01

GC/MS Volatiles

Lot-Sample #...: A0D230511-013 **Work Order #...:** L0FH31AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
Trichlorofluoromethane	ND	10	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	5.0	ug/L
o-Xylene	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(78 - 115)
1,2-Dichloroethane-d4	107	(77 - 120)
Toluene-d8	105	(78 - 111)
4-Bromofluorobenzene	88	(80 - 114)

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QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0D230511 **Work Order #...:** L00X01AA **Matrix.....:** WATER
MB Lot-Sample #: A0E040000-369

Prep Date.....: 05/03/10
Analysis Date..: 05/03/10 **Prep Batch #...:** 0124369
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromobenzene	ND	5.0	ug/L	SW846 8260B
Bromochloromethane	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	10	ug/L	SW846 8260B
n-Butylbenzene	ND	5.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	5.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	10	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	10	ug/L	SW846 8260B
2-Chlorotoluene	ND	5.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	5.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	10	ug/L	SW846 8260B
1,2-Dibromoethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0D230511 **Work Order #...:** L00X01AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
n-Propylbenzene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	10	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	5.0	ug/L	SW846 8260B
o-Xylene	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(78 - 115)
1,2-Dichloroethane-d4	107	(77 - 120)
Toluene-d8	100	(78 - 111)
4-Bromofluorobenzene	93	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0D230511 **Work Order #...:** L03TG1AA **Matrix.....:** WATER
MB Lot-Sample #: A0E050000-429

Prep Date.....: 05/05/10
Analysis Date..: 05/05/10 **Prep Batch #...:** 0125429
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/L	SW846 8260B
Bromobenzene	ND	5.0	ug/L	SW846 8260B
Bromochloromethane	ND	5.0	ug/L	SW846 8260B
Bromodichloromethane	ND	5.0	ug/L	SW846 8260B
Bromoform	ND	5.0	ug/L	SW846 8260B
Bromomethane	ND	10	ug/L	SW846 8260B
n-Butylbenzene	ND	5.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	5.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	5.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260B
Chlorobenzene	ND	5.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	5.0	ug/L	SW846 8260B
Chloroethane	ND	10	ug/L	SW846 8260B
Chloroform	ND	5.0	ug/L	SW846 8260B
Chloromethane	ND	10	ug/L	SW846 8260B
2-Chlorotoluene	ND	5.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	5.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	10	ug/L	SW846 8260B
1,2-Dibromoethane	ND	5.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	10	ug/L	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	2.5	ug/L	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	5.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/L	SW846 8260B
1,4-Dioxane	ND	250	ug/L	SW846 8260B
Ethylbenzene	ND	5.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	5.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0D230511 **Work Order #...:** L03TG1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
n-Propylbenzene	ND	5.0	ug/L	SW846 8260B
Styrene	ND	5.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260B
Tetrachloroethene	ND	5.0	ug/L	SW846 8260B
Toluene	ND	5.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260B
Trichloroethene	ND	5.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	10	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	5.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	5.0	ug/L	SW846 8260B
o-Xylene	ND	5.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(78 - 115)
1,2-Dichloroethane-d4	104	(77 - 120)
Toluene-d8	103	(78 - 111)
4-Bromofluorobenzene	91	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D230511 **Work Order #...:** L00X01AC **Matrix.....:** WATER
LCS Lot-Sample#: A0E040000-369
Prep Date.....: 05/03/10 **Analysis Date..:** 05/03/10
Prep Batch #...: 0124369
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**98**	**(79 - 116)**	**SW846 8260B**
Chlorobenzene	**96**	**(81 - 115)**	**SW846 8260B**
1,1-Dichloroethene	**117**	**(65 - 119)**	**SW846 8260B**
Toluene	**99**	**(76 - 119)**	**SW846 8260B**
Trichloroethene	**110**	**(80 - 122)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(78 - 115)
1,2-Dichloroethane-d4	105	(77 - 120)
Toluene-d8	103	(78 - 111)
4-Bromofluorobenzene	102	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D230511 **Work Order #...:** L03TG1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0E050000-429 L03TG1AD-LCSD
Prep Date.....: 05/05/10 **Analysis Date..:** 05/05/10
Prep Batch #...: 0125429
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**100**	**(79 - 116)**			**SW846 8260B**
	102	**(79 - 116)**	**2.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**100**	**(81 - 115)**			**SW846 8260B**
	104	**(81 - 115)**	**3.2**	**(0-20)**	**SW846 8260B**
1,1-Dichloroethene	**114**	**(65 - 119)**			**SW846 8260B**
	117	**(65 - 119)**	**2.8**	**(0-20)**	**SW846 8260B**
Toluene	**101**	**(76 - 119)**			**SW846 8260B**
	105	**(76 - 119)**	**3.8**	**(0-20)**	**SW846 8260B**
Trichloroethene	**112**	**(80 - 122)**			**SW846 8260B**
	113	**(80 - 122)**	**1.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	111	(78 - 115)
	113	(78 - 115)
1,2-Dichloroethane-d4	109	(77 - 120)
	109	(77 - 120)
Toluene-d8	104	(78 - 111)
	107	(78 - 111)
4-Bromofluorobenzene	97	(80 - 114)
	98	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0D230511 **Work Order #...:** L0FG81AC-MS **Matrix.....:** WG
MS Lot-Sample #: A0D230511-001 L0FG81AD-MSD
Date Sampled...: 04/21/10 15:30 **Date Received..:** 04/23/10
Prep Date.....: 05/03/10 **Analysis Date..:** 05/03/10
Prep Batch #...: 0124369
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**100**	**(73 - 123)**			**SW846 8260B**
	96	**(73 - 123)**	**4.8**	**(0-11)**	**SW846 8260B**
Chlorobenzene	**99**	**(70 - 122)**			**SW846 8260B**
	97	**(70 - 122)**	**2.5**	**(0-14)**	**SW846 8260B**
1,1-Dichloroethene	**115**	**(57 - 138)**			**SW846 8260B**
	117	**(57 - 138)**	**1.1**	**(0-15)**	**SW846 8260B**
Toluene	**99**	**(67 - 129)**			**SW846 8260B**
	97	**(67 - 129)**	**2.2**	**(0-14)**	**SW846 8260B**
Trichloroethene	**112**	**(58 - 141)**			**SW846 8260B**
	110	**(58 - 141)**	**1.1**	**(0-17)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	115	(78 - 115)
	112	(78 - 115)
1,2-Dichloroethane-d4	105	(77 - 120)
	109	(77 - 120)
Toluene-d8	104	(78 - 111)
	107	(78 - 111)
4-Bromofluorobenzene	101	(80 - 114)
	99	(80 - 114)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Chain of Custody Record

TestAmerica Laboratory location: N. Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager:	Site Contact:	Lab Contact:	COC No:
Company Name: MACTEC	Rhonda Quinn	Terrell Parker	Becky Strait	
Address: 3200 Town Point Dr, Suite 100	Telephone: 770-421-3400	Telephone: 770-421-3368	Telephone:	1 of 2 COCs
City/State/Zip: Kennesaw, GA 30144	Email: RMQuinn@mactec.com			
Phone: 770-421-3400		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: TK-Louisville	Method of Shipment/Carrier: FEDEX			
Project Number: 6122-09-0322,02	Shipping/Tracking No: 7363 3627 6915			
PO# 2010055123				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Preservation: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	8260B - Site specific compounds	Temp. °C - Cooler	Analyses	Sample Specific Notes / Special Instructions:
SEEP G	4-21-10	15:30		✓						3					N	G	X	
MB #16	4-21-10	16:20		✓						3					N	G	X	
SEEP D	4-21-10	15:55		✓						3					N	G	X	
SEEP C	4-21-10	13:30		✓						3					N	G	X	
SEEP H	4-21-10	14:10		✓						3					N	G	X	
SEEP #7	4-21-10	17:30		✓						3					N	G	X	
MB #15	4-21-10	16:40		✓						3					N	G	X	
SEEP J	4-22-10	10:30		✓						3					N	G	X	
SEEP K	4-22-10	10:05		✓						3					N	G	X	
MB # 14	4-22-10	08:50		✓						3					N	G	X	

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☑ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

CUSTODY SEAL #S: 718611 + 718612

Relinquished by: TO FEDEX	Company: MACTEC	Date/Time: 4-22-10 / 1730	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAL	Date/Time: 4/23/10 9:16

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TAL-0018 (1008)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

TestAmerica Laboratory location: N. Canton
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.
COC No:
2 of 2 COCs

Client Contact
Company Name: MACTEC
Address: 3200 Town Point Dr Suite 100
City/State/Zip: Kennesaw, GA 30144
Phone: 770-421-3400
Project Name: TK-Louisville
Project Number: 6122-09-0322, 02
PO# 2010055333

Client Project Manager: Rhonda Quinn
Telephone: 770-421-3400
Email: RNQuinn@mactec.com
Method of Shipment/Carrier: FEDEX
Shipping/Tracking No: 7363 36276915

Site Contact: Terrell Parker
Telephone: 770-421-3368

Lab Contact: Becky Strait
Telephone:

Analysis Turnaround Time
TAT if different from below
☑ 3 weeks
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Analyses: 8260B site specific compounds; Cooler Temp °C

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample	Composite/Grab	8260B site specific compounds	Cooler Temp °C	Sample Specific Notes / Special Instructions:
SEEP I	4-22-10	11:05		✓						3					N	G	X		
TRIP Blank 42210	4-22-10	17:00		✓						2					N	G	X		
Dup-01	4-22-10	12:00		✓						3					N	G	X		
Temperature Blank	42210	—		✓						1					N	G		X	

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☑ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:
Custody Seal#s: 718611 + 718612

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature] To FEDEX	MACTEC	4-22-10 / 17:30			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	TAL	4/23/10 910

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TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Lot Number: ADD230517

Client Mactec Project _____ By: _____ (Signature)

Cooler Received on 4-22-10 Opened on 4-23-10

FedEx [X] UPS [ ] DHL [ ] FAS [ ] Stetson [ ] Client Drop Off [ ] TestAmerica Courier [ ] Other _____

TestAmerica Cooler # _____ Multiple Coolers [ ] Foam Box [ ] Client Cooler [X] Other _____

1. Were custody seals on the outside of the cooler(s)? Yes [X] No [ ] Intact? Yes [ ] No [ ] NA [ ]
   If YES, Quantity 2 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes [X] No [ ] NA [ ]
   Were custody seals on the bottle(s)? Yes [X] No [ ] NA [ ]
   If YES, are there any exceptions? Yes [ ] No [X]
2. Shippers' packing slip attached to the cooler(s)? Yes [X] No [ ]
3. Did custody papers accompany the sample(s)? Yes [X] No [ ] Relinquished by client? Yes [X] No [ ]
4. Were the custody papers signed in the appropriate place? Yes [X] No [ ]
5. Packing material used: Bubble Wrap [X] Foam [ ] None [ ] Other _____
6. Cooler temperature upon receipt 1.0 °C See back of form for multiple coolers/temps [ ]
   METHOD: IR [X] Other [ ] _____
   COOLANT: Wet Ice [X] Blue Ice [ ] Dry Ice [ ] Water [ ] None [ ]
7. Did all bottles arrive in good condition (Unbroken)? Yes [X] No [ ]
8. Could all bottle labels be reconciled with the COC? Yes [X] No [ ]
9. Were sample(s) at the correct pH upon receipt? Yes [X] No [ ] NA [X]
10. Were correct bottle(s) used for the test(s) indicated? Yes [X] No [ ]
11. Were air bubbles >6 mm in any VOA vials? Yes [ ] No [ ] NA [X]
12. Sufficient quantity received to perform indicated analyses? Yes [X] No [ ]
13. Was a trip blank present in the cooler(s)? Yes [X] No [ ] Were VOAs on the COC? Yes [X] No [ ]

Contacted PM _____ Date _____ by _____ via Verbal [ ] Voice Mail [ ] Other [ ]

Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 121709-HNO_3; Sulfuric Acid Lot# 121709-H_2SO_4; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-$(CH_3COO)_2ZN/NaOH$.* What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON
Regulatory program: ☐ DW ☐ NPDES ■ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: MACTEC	Client Project Manager: Greg Wrenn	Site Contact: Terrell Parker	Lab Contact: ALICIA DANFORD ~~MARK LOEB~~ 6-2-10	COC No: 060110
Address: 3200 Town Point Dr. Suite 100	Telephone: 770-421-3400	Telephone: 404-934-8970	Telephone: 330-966-9387	3 of 4 COCs
City/State/Zip: Kennesaw, GA 30144	Email:			
Phone: 770-421-3400				
Project Name: TK-Louisville	Method of Shipment/Carrier: FEDEX			
Project Number: 6122-09-0322, 01	Shipping/Tracking No: 8566 3051 9668			
PO #				

TAT if different from below: ■ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

Analyses

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:			8260B+1,4-Dioxane	8260B+1,4-Dioxane by SIM	Cooler temp °C								Sample Specific Notes / Special Instructions:
MW-15	6-2-10	10:53		X						3					N	G	X										
MW-11	6-2-10	11:25		X						3					N	G	X										
MW-12	6-2-10	11:40		X						3					N	G	X										
MW-13	6-2-10	12:00		X						3					N	G	X										
TRIP Blank 060110	6-1-10	12:00		X						1					N	G	X										
Temp Blank	6-2-10	~~12~~		X									1						X								
MW-5 Purged	6-2-10	16:22		X						4					N	G		X									
MW-20 Purged	6-2-10	17:30		X						4					N	G		X									
SEEP C	6-2-10	17:33		X						3					N	G	X										
MANSON Branch #2	6-2-10	17:50		X						3					N	G	X										

Possible Hazard Identification: ■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ■ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

James T. Parker to FEDEX

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	MACTEC	6-3-2010 / 19:50			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAL NC	Date/Time: 6/4/10 915

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TAL-0018 (100B)

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON

Regulatory program: ☐ DW ☐ NPDES ■ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: MACTEC	Client Project Manager: Greg Wrenn	Site Contact: Terrell Parker	Lab Contact: Alicia Danford	COC No: 060110
Address: 3200 Town Point Dr Suite 100	Telephone: 770-421-3400	Telephone: 404-934-8970	Telephone: 330-966-9387	4 of 4 COCs
City/State/Zip: Kennesaw, GA 30144	Email:			
Phone: 770-421-3400		TAT if different from below: ■ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: TK-Louisville	Method of Shipment/Carrier: FEDEX			
Project Number: 6122-09-0322.01	Shipping/Tracking No: 8566 3051 9668			
PO #				

Analyses: 8260B +1,4-dioxane; 8260B +1,4-dioxane by SIM

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Preservation: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample	Perform MS/MSD	8260B	8260B +1,4-dioxane by SIM	Sample Specific Notes / Special Instructions:
SEEP H	6-3-10	14:25		X						3					N	G	X		
MW-10 Purge	6-3-10	10:00		X						4					N	G		X	
MW-3 Purged	6-3-10	11:25		X						4					N	G		X	
MW-14 Purge	6-3-10	13:15		X						4					N	G		X	
MW-19 Purged	6-3-10	13:45		X						4					N	G		X	
SEEP L	6-3-10	16:00		X						3					N	G	X		

6-3-2010

Possible Hazard Identification: ■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ■ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments: James T. Parker to FEDEX

Relinquished by:	Company: MACTEC	Date/Time: 6-3-2010 19:50	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Alicia Mangum	Company: TAL NC	Date/Time: 6/4/10 915

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TAL-0018 (1008)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP C

GC/MS Volatiles

Lot-Sample #...: A0E040435-028 **Work Order #...:** L2F6W1AA **Matrix.....:** WG
Date Sampled...: 06/02/10 17:33 **Date Received...:** 06/04/10
Prep Date.....: 06/16/10 **Analysis Date..:** 06/16/10
Prep Batch #...: 0168150
Dilution Factor: 2.5
Analyst ID.....: 001904 **Instrument ID..:** UX16
Method.....: SW846 8260B SIM

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dioxane	ND	5.0	ug/L	0.82

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	100	(61 - 128)

MACTEC Engineering and Consulting Inc

Client Sample ID: MANSON BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A0E040435-029 Work Order #...: L2F601AA Matrix.....: WG
Date Sampled...: 06/02/10 17:50 Date Received..: 06/04/10
Prep Date.....: 06/09/10 Analysis Date..: 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 50
Analyst ID.....: 001904 Instrument ID..: UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	50	ug/L	6.5
Benzene	ND	50	ug/L	6.5
Bromochloromethane	ND	50	ug/L	14
Bromodichloromethane	ND	50	ug/L	7.5
Bromoform	ND	50	ug/L	32
Bromomethane	ND	50	ug/L	20
n-Butylbenzene	ND	50	ug/L	6.0
sec-Butylbenzene	ND	50	ug/L	6.5
tert-Butylbenzene	ND	50	ug/L	6.5
Carbon tetrachloride	ND	50	ug/L	6.5
Chlorobenzene	ND	50	ug/L	7.5
Chlorodibromomethane	ND	50	ug/L	9.0
Chloroethane	ND	50	ug/L	14
Chloroform	ND	50	ug/L	8.0
Chloromethane	ND	50	ug/L	15
2-Chlorotoluene	ND	50	ug/L	5.5
4-Chlorotoluene	ND	50	ug/L	9.0
1,2-Dibromo-3-chloropropane (DBCP)	ND	100	ug/L	34
1,2-Dibromoethane	ND	50	ug/L	12
Dibromomethane	ND	50	ug/L	14
1,2-Dichlorobenzene	ND	50	ug/L	6.5
1,3-Dichlorobenzene	ND	50	ug/L	7.0
1,4-Dichlorobenzene	ND	50	ug/L	6.5
Dichlorodifluoromethane	ND	50	ug/L	16
1,1-Dichloroethane	ND	50	ug/L	7.5
1,2-Dichloroethane	ND	50	ug/L	11
cis-1,2-Dichloroethene	**180**	**50**	**ug/L**	**8.5**
trans-1,2-Dichloroethene	ND	50	ug/L	9.5
1,1-Dichloroethene	**160**	**50**	**ug/L**	**9.5**
1,2-Dichloropropane	ND	50	ug/L	9.0
1,3-Dichloropropane	ND	50	ug/L	8.0
2,2-Dichloropropane	ND	50	ug/L	6.5
1,1-Dichloropropene	ND	50	ug/L	6.5
1,4-Dioxane	ND	2500	ug/L	950
Ethylbenzene	ND	50	ug/L	8.5
Hexachlorobutadiene	ND	50	ug/L	15

(Continued on next page)

MACTEC Engineering and Consulting Inc

Client Sample ID: MANSON BRANCH #2

GC/MS Volatiles

Lot-Sample #...: A0F040435-029 **Work Order #...:** L2F601AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	50	ug/L	6.0
Methylene chloride	ND	50	ug/L	16
Naphthalene	ND	50	ug/L	12
n-Propylbenzene	ND	50	ug/L	7.0
Styrene	ND	50	ug/L	5.5
1,1,1,2-Tetrachloroethane	ND	50	ug/L	12
1,1,2,2-Tetrachloroethane	ND	50	ug/L	9.0
Tetrachloroethene	ND	50	ug/L	14
Toluene	ND	50	ug/L	6.5
1,2,3-Trichlorobenzene	ND	50	ug/L	8.5
1,2,4-Trichloro-benzene	ND	50	ug/L	7.5
1,1,1-Trichloroethane	**61**	**50**	**ug/L**	**11**
1,1,2-Trichloroethane	ND	50	ug/L	14
Trichloroethene	**1700**	**50**	**ug/L**	**8.5**
Trichlorofluoromethane	ND	50	ug/L	10
1,2,3-Trichloropropane	ND	50	ug/L	22
1,2,4-Trimethylbenzene	ND	50	ug/L	6.0
1,3,5-Trimethylbenzene	ND	50	ug/L	4.8
Vinyl chloride	ND	50	ug/L	11
m-Xylene & p-Xylene	ND	100	ug/L	12
o-Xylene	ND	50	ug/L	7.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	88	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A0F040435-030 **Work Order #...:** L2F611AA **Matrix.....:** WG
Date Sampled...: 06/03/10 14:25 **Date Received..:** 06/04/10
Prep Date.....: 06/09/10 **Analysis Date..:** 06/09/10
Prep Batch #...: 0161174
Dilution Factor: 2
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	2.0	ug/L	0.26
Benzene	ND	2.0	ug/L	0.26
Bromochloromethane	ND	2.0	ug/L	0.58
Bromodichloromethane	ND	2.0	ug/L	0.30
Bromoform	ND	2.0	ug/L	1.3
Bromomethane	ND	2.0	ug/L	0.82
n-Butylbenzene	ND	2.0	ug/L	0.24
sec-Butylbenzene	ND	2.0	ug/L	0.26
tert-Butylbenzene	ND	2.0	ug/L	0.26
Carbon tetrachloride	ND	2.0	ug/L	0.26
Chlorobenzene	ND	2.0	ug/L	0.30
Chlorodibromomethane	ND	2.0	ug/L	0.36
Chloroethane	ND	2.0	ug/L	0.58
Chloroform	ND	2.0	ug/L	0.32
Chloromethane	ND	2.0	ug/L	0.60
2-Chlorotoluene	ND	2.0	ug/L	0.22
4-Chlorotoluene	ND	2.0	ug/L	0.36
1,2-Dibromo-3-chloropropane (DBCP)	ND	4.0	ug/L	1.3
1,2-Dibromoethane	ND	2.0	ug/L	0.48
Dibromomethane	ND	2.0	ug/L	0.56
1,2-Dichlorobenzene	ND	2.0	ug/L	0.26
1,3-Dichlorobenzene	ND	2.0	ug/L	0.28
1,4-Dichlorobenzene	ND	2.0	ug/L	0.26
Dichlorodifluoromethane	ND	2.0	ug/L	0.62
1,1-Dichloroethane	ND	2.0	ug/L	0.30
1,2-Dichloroethane	ND	2.0	ug/L	0.44
cis-1,2-Dichloroethene	**63**	**2.0**	**ug/L**	**0.34**
trans-1,2-Dichloroethene	ND	2.0	ug/L	0.38
1,1-Dichloroethene	**12**	**2.0**	**ug/L**	**0.38**
1,2-Dichloropropane	ND	2.0	ug/L	0.36
1,3-Dichloropropane	ND	2.0	ug/L	0.32
2,2-Dichloropropane	ND	2.0	ug/L	0.26
1,1-Dichloropropene	ND	2.0	ug/L	0.26
1,4-Dioxane	ND	100	ug/L	38
Ethylbenzene	ND	2.0	ug/L	0.34
Hexachlorobutadiene	ND	2.0	ug/L	0.60

(Continued on next page)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP H

GC/MS Volatiles

Lot-Sample #...: A0F040435-030 **Work Order #...:** L2F611AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	2.0	ug/L	0.24
Methylene chloride	ND	2.0	ug/L	0.66
Naphthalene	ND	2.0	ug/L	0.48
n-Propylbenzene	ND	2.0	ug/L	0.28
Styrene	ND	2.0	ug/L	0.22
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L	0.46
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L	0.36
Tetrachloroethene	ND	2.0	ug/L	0.58
Toluene	ND	2.0	ug/L	0.26
1,2,3-Trichlorobenzene	ND	2.0	ug/L	0.34
1,2,4-Trichloro-benzene	ND	2.0	ug/L	0.30
1,1,1-Trichloroethane	ND	2.0	ug/L	0.44
1,1,2-Trichloroethane	ND	2.0	ug/L	0.54
Trichloroethene	**41**	**2.0**	**ug/L**	**0.34**
Trichlorofluoromethane	ND	2.0	ug/L	0.42
1,2,3-Trichloropropane	ND	2.0	ug/L	0.86
1,2,4-Trimethylbenzene	ND	2.0	ug/L	0.24
1,3,5-Trimethylbenzene	ND	2.0	ug/L	0.19
Vinyl chloride	ND	2.0	ug/L	0.44
m-Xylene & p-Xylene	ND	4.0	ug/L	0.48
o-Xylene	ND	2.0	ug/L	0.28

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A0F040435-035 **Work Order #...:** L2F7A1AA **Matrix.....:** WG
Date Sampled...: 06/03/10 16:00 **Date Received..:** 06/04/10
Prep Date.....: 06/08/10 **Analysis Date..:** 06/08/10
Prep Batch #...: 0159358
Dilution Factor: 1
Analyst ID.....: 001904 **Instrument ID..:** UX10
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromobenzene	ND	1.0	ug/L	0.13
Benzene	ND	1.0	ug/L	0.13
Bromochloromethane	ND	1.0	ug/L	0.29
Bromodichloromethane	ND	1.0	ug/L	0.15
Bromoform	ND	1.0	ug/L	0.64
Bromomethane	ND	1.0	ug/L	0.41
n-Butylbenzene	ND	1.0	ug/L	0.12
sec-Butylbenzene	ND	1.0	ug/L	0.13
tert-Butylbenzene	ND	1.0	ug/L	0.13
Carbon tetrachloride	ND	1.0	ug/L	0.13
Chlorobenzene	ND	1.0	ug/L	0.15
Chlorodibromomethane	ND	1.0	ug/L	0.18
Chloroethane	ND	1.0	ug/L	0.29
Chloroform	ND	1.0	ug/L	0.16
Chloromethane	ND	1.0	ug/L	0.30
2-Chlorotoluene	ND	1.0	ug/L	0.11
4-Chlorotoluene	ND	1.0	ug/L	0.18
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	0.67
1,2-Dibromoethane	ND	1.0	ug/L	0.24
Dibromomethane	ND	1.0	ug/L	0.28
1,2-Dichlorobenzene	ND	1.0	ug/L	0.13
1,3-Dichlorobenzene	ND	1.0	ug/L	0.14
1,4-Dichlorobenzene	ND	1.0	ug/L	0.13
Dichlorodifluoromethane	ND	1.0	ug/L	0.31
1,1-Dichloroethane	ND	1.0	ug/L	0.15
1,2-Dichloroethane	ND	1.0	ug/L	0.22
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.17
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.19
1,1-Dichloroethene	ND	1.0	ug/L	0.19
1,2-Dichloropropane	ND	1.0	ug/L	0.18
1,3-Dichloropropane	ND	1.0	ug/L	0.16
2,2-Dichloropropane	ND	1.0	ug/L	0.13
1,1-Dichloropropene	ND	1.0	ug/L	0.13
1,4-Dioxane	ND	50	ug/L	19
Ethylbenzene	ND	1.0	ug/L	0.17
Hexachlorobutadiene	ND	1.0	ug/L	0.30

(Continued on next page)

MACTEC Engineering and Consulting Inc

Client Sample ID: SEEP L

GC/MS Volatiles

Lot-Sample #...: A0F040435-035 **Work Order #...:** L2F7A1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
p-Isopropyltoluene	ND	1.0	ug/L	0.12
Methylene chloride	ND	1.0	ug/L	0.33
Naphthalene	ND	1.0	ug/L	0.24
n-Propylbenzene	ND	1.0	ug/L	0.14
Styrene	ND	1.0	ug/L	0.11
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	0.23
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.18
Tetrachloroethene	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.13
1,2,3-Trichlorobenzene	ND	1.0	ug/L	0.17
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.15
1,1,1-Trichloroethane	ND	1.0	ug/L	0.22
1,1,2-Trichloroethane	ND	1.0	ug/L	0.27
Trichloroethene	ND	1.0	ug/L	0.17
Trichlorofluoromethane	ND	1.0	ug/L	0.21
1,2,3-Trichloropropane	ND	1.0	ug/L	0.43
1,2,4-Trimethylbenzene	ND	1.0	ug/L	0.12
1,3,5-Trimethylbenzene	ND	1.0	ug/L	0.096
Vinyl chloride	ND	1.0	ug/L	0.22
m-Xylene & p-Xylene	ND	2.0	ug/L	0.24
o-Xylene	ND	1.0	ug/L	0.14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

TOTAL ORGANIC CARBON IN SOIL

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 28, 2010

Rhonda Quinn
Mactec Engineering and Consulting, Inc.
3200 Town Point Dr.
Kennesaw GA 30144

TEL: (770) 421-3400
FAX: (770) 421-3486

RE: Thermo King

Dear Rhonda Quinn: Order No: 1010H39

Analytical Environmental Services, Inc. received 2 samples on 10/21/2010 10:25:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/10-06/30/11.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/11.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

James Forrest
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1010H39

Date: 10-19-10 Page 1 of

COMPANY:	ADDRESS:
MACTEC	3200 Town Point Dr, Ste100 Kennesaw, GA 30144
PHONE: 770-421-3400	FAX: 770-421-3486
SAMPLED BY: Jeff Moore	SIGNATURE: Jeff Moore

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) H	ANALYSIS REQUESTED Total Organic Carbon	REMARKS	No # of Containers
1	HMW26-2-3-101910	10-19-10	1119	✓		SO	1			1
2	HMW27-3-4-101910	10-19-10	1145	✓		SO	1			1
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Jeff Moore	10-20-10 5:00	1: Mary Jo	10/21/10 10:25
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

PROJECT INFORMATION
PROJECT NAME: Thermo King
PROJECT #: 6122-09-0322
SITE ADDRESS: Louisville, GA
SEND REPORT TO: Rhonda Quinn
INVOICE TO: (IF DIFFERENT FROM ABOVE) MACTEC-Alpharetta
QUOTE #: 41716 PO#: Call For #

RECEIPT
Total # of Containers

Turnaround Time Request
- ● Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other

STATE PROGRAM (if any):
E-mail? (Y) N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	HMW26-2-3-101910
Project:	Thermo King	**Collection Date:**	10/19/2010 11:19:00 AM
Lab ID:	1010H39-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Organic Carbon SW9060A Modified					**(SW9060 Modified)**			
Total Organic Carbon (TOC)	1110	500		mg/Kg-dry	137190	1	10/27/2010 14:24	ME

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc **Date:** 28-Oct-10

Client:	Mactec Engineering and Consulting, Inc.	**Client Sample ID:**	HMW27-3-4-101910
Project:	Thermo King	**Collection Date:**	10/19/2010 1:45:00 PM
Lab ID:	1010H39-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Organic Carbon SW9060A Modified					**(SW9060 Modified)**			
Total Organic Carbon (TOC)	2710	500		mg/Kg-dry	137190	1	10/27/2010 15:23	ME

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Mactec Work Order Number 1010H39

Checklist completed by Mad 10/21/10
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes ✓ No __ Not Present __

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.8°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted ✓ Yes __ No __

Water - pH acceptable upon receipt? Yes __ No __ Not Applicable ✓

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Analytical Environmental Services, Inc

Date: 28-Oct-10

Client: Mactec Engineering and Consulting, Inc.
Project: Thermo King
Lab Order: 1010H39

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1010H39-001A	HMW26-2-3-101910	10/19/2010 11:19:00AM	Soil	Total Organic Carbon		10/22/2010	10/27/2010
1010H39-002A	HMW27-3-4-101910	10/19/2010 1:45:00PM	Soil	Total Organic Carbon		10/22/2010	10/27/2010

Client: Mactec Engineering and Consulting, Inc.
Project Name: Thermo King
Workorder: 1010H39

ANALYTICAL QC SUMMARY REPORT

BatchID: 137190

Sample ID: **MB-137190**	Client ID:					Units: **mg/Kg-dry**		Prep Date: **10/22/2010**		Run No: **183296**	
SampleType: **MBLK**	TestCode: **Total Organic Carbon SW9060A Modified**					BatchID: **137190**		Analysis Date: **10/27/2010**		Seq No: **3816383**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Total Organic Carbon (TOC)	BRL	500	0	0	0	0	0	0	0	0	

Sample ID: **LCS-137190**	Client ID:					Units: **mg/Kg-dry**		Prep Date: **10/22/2010**		Run No: **183296**	
SampleType: **LCS**	TestCode: **Total Organic Carbon SW9060A Modified**					BatchID: **137190**		Analysis Date: **10/27/2010**		Seq No: **3816385**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Total Organic Carbon (TOC)	2416	500	2420	0	99.8	70	130	0	0	0	

Sample ID: **1010H39-001ADUP**	Client ID: **HMW26-2-3-101910**					Units: **mg/Kg-dry**		Prep Date: **10/22/2010**		Run No: **183296**	
SampleType: **DUP**	TestCode: **Total Organic Carbon SW9060A Modified**					BatchID: **137190**		Analysis Date: **10/27/2010**		Seq No: **3816387**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Total Organic Carbon (TOC)	1124	500	0	0	0	0	0	1110	1.25	50	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

FIELD SAMPLING DATA

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322) 61

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100, KENNESAW GA 30144
PHONE (770) 421-3400 / FAX (770) 421-3486

WELL ID: MW-1 DEPTH TO PRODUCT: DATE: 6-1-2010

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 15:50

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 46.22' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 15:21 PURGE VOLUME: WELL DIAMETER (inches): 2-IN

Initial PID =

Bailing PID =

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 15:52		3.89	25.0	0.01	0.40	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Partly Cloudy, 89°F, humid		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. Parker		OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-2 DEPTH TO PRODUCT: N/A DATE: 6-1-2010

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 14.42 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 37.60' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 14:35 PURGE VOLUME: WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		4.29	27.7	0.03	1.45	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION	
WEATHER:	Partly Cloudy, 85°F
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: JTP	OBSERVER: DLH

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-3 PDB DEPTH TO PRODUCT: N/A DATE: 6-2-2010

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 08:12

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 40.70' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 07:58 PURGE VOLUME: WELL DIAMETER (inches): 2-IN

Initial PID = N/A

Bailing PID = 0 Lenght to PDB Rope ATTACHMENT=56.25' using WL meter

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 08:15		4.39	24.9	0.01	0.48	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION		
WEATHER:	Clear, Sunny, 68°F	
SHIPPED VIA:	FedEX	
SHIPPED TO:	Test America-North Canton, OH	
SAMPLER: T. Parker	OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-3 Purge** DEPTH TO PRODUCT: N/A DATE: 6-3-10

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 11:25

SAMPLE METHOD: Bailer GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 40.70'

DEPTH TO PASSIVE DIFFUSION BAG (btoc)

INTAKE AT 56.25' TOTAL DEPTH: 60.0 Ft. 19.3' ft WATER Column

Arrived at: 08:02 PURGE VOLUME: 9.4 X0.163 3.15 GAL. X3

Initial PID = N/A WELL DIAMETER (inches): 2-IN

Bailing PID = ~~Dist from Cap to 1st Ring = 38.55' btoc~~ 6-2-2010

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 08:28						( )	40.76
08:33	0.1 gal	5.02	23.2	0.07	12.7	125 ml/min	40.88
08:45	0.5 gal	4.89	23.1	0.06	4.52	180 ml/min	40.94'
09:00	1.5	4.92	22.9	0.06	2.38	215 ml/min	40.96'
09:14	2.5	4.97	23.0	0.06	1.01	215 ml/min	40.97'
09:54	~~5.0~~ 4.0	5.17	23.3	0.07	0.54	215 ml/min	40.95'
10:14	5.0	5.24	23.5	0.07	0.66	195 ml/min	40.96' to 230 ml/min
10:30	6.0	5.26	23.3	0.07	0.27	235 ml/min	41.01'
10:43	7.0	5.27	23.3	0.07	0.27	235	41.01'
11:00	8.0	5.30	23.4	0.08	0.26	235	41.01'
11:15	9.0	5.30	23.4	0.08	-0.23	235	41.01'
11:22	9.4	5.31	23.4	0.08	0.13	235	41.01'

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION	
WEATHER:	mostly cloudy, humid, 74°F, light breeze
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: T. PARKER	OBSERVER: D. HOWARD

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-4 DEPTH TO PRODUCT: N/A DATE: 6-2-2010

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 08:38

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 39.29' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 08:28 PURGE VOLUME: WELL DIAMETER (inches):
Initial PID = N/A 2-IN
Bailing PID = ↓

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 08:40		4.33	26.4	0.00	0.86	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Clear, Sunny, 70°F, humid		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. PARKER		OBSERVER: D. HOWARD	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-5 PDB DEPTH TO PRODUCT: N/A DATE: 6-1-2010

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 17:10 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 39.18' DEPTH TO PASSIVE DIFFUSION BAG (btoc) _____

TOTAL DEPTH: _____

Arrived at: 16:48 PURGE VOLUME: _____ WELL DIAMETER (inches): 2-IN

Initial PID = N/A

Bailing PID = ↓

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 17:15		3.88	26.5	0.00	2.23	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION	
WEATHER:	Partly Cloudy, 86°F, humid
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: T. PARKER	OBSERVER: D. Howard

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-5 Purge DEPTH TO PRODUCT: N/A DATE: 6-2-2010

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 14:22

SAMPLE METHOD: Bailer 39.29 AFTER PUMP INSTALL GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 39.18' (6-1-2010) DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: 54

Arrived at: 14:10 PURGE VOLUME: 7.2 gal. WELL DIAMETER (inches): 2-IN

Initial PID =

Bailing PID =

Water Column: 14.82' x 0.163 = 2.42 x 3 = 7.2 gal

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 14:25			24			270 ( )	
14:42	1.0	5.64	24.3	0.12	0.90	230	39.45'
14:53	2.0	5.60	22.3	0.11	1.48	230	39.45'
15:00	2.5	5.62	22.3	0.11	1.14	230	39.45'
15:11	3.0	5.62	22.1	0.11	0.83	230	39.45'
15:30	4.0	5.62	22.2	0.11	0.92	230	39.45'
15:46	5.0	5.62	22.2	0.11	1.30	235	39.45'
16:01	6.0	5.64	21.8	0.10	1.10	235	39.45'
16:15	7.0	5.64	22.0 22.0	0.10	1.13	235	39.45'
16:18	7.2	5.64	21.8	0.10	1.11	235	39.45'
				AFTER Sample Bag		→	39.13'

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION			
WEATHER:	Partly cloudy mostly sunny. 85°F, humid, light breeze		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. PARKER		OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-6 DEPTH TO PRODUCT: N/A DATE: 6-1-10

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 14:22 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 30.74' DEPTH TO PASSIVE DIFFUSION BAG (btoc) _____

TOTAL DEPTH: _____

Arrived at: 1408 PURGE VOLUME: _____ WELL DIAMETER (inches): 2-IN

Initial PID = N/A

Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1425		4.67	28.7°	0.01	1.28	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
				BOTTLE LOT # 0112001 U

GENERAL INFORMATION	
WEATHER:	Partly Cloudy,
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: T. Parker	OBSERVER: D. Howard

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100, KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-7 DEPTH TO PRODUCT: N/A DATE: 6-1-2010

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 16:37 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 34.31' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 16:17 PURGE VOLUME: WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 16:43		4.11	27.6	0.01	0.82	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Partly cloudy, 86°F, light breeze, humid		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. PARKER		OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0327

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE (770) 421-3400 / FAX (770) 421-3486

WELL ID: MW-8 DEPTH TO PRODUCT: N/A DATE: 6-1-2010

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 16:10 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 4.63' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 16:02 PURGE VOLUME: WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = ↓

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 16:14		4.46	25.6	0.00	1.38	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION	
WEATHER:	Partly Cloudy, light breeze, 88°F, humid
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: L. Parker	OBSERVER: D. Howard

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100, KENNESAW, GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-9 DEPTH TO PRODUCT: N/A DATE: 6-1-2010

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 15:17 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 37.21' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: _____

Arrived at: 14:54 PURGE VOLUME: _____ WELL DIAMETER (inches): 2-IN

Initial PID = N/A

Bailing PID = 4

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 15:20		4.06	26.0	0.03	0.92	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION		
WEATHER:	Partly Cloudy, Hot, humid	
SHIPPED VIA:	FedEX	
SHIPPED TO:	Test America-North Canton, OH	
SAMPLER: T. Parker	OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-10 PDB DEPTH TO PRODUCT: N/A DATE: 6-2-2010

PURGE METHOD: Low Flow/Low Stress ;Pump Or Bailer TIME: 09:48

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 27.96' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: _____ _____

Arrived at: 09:35 PURGE VOLUME: _____ WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N/A Dist. to 1st Ringharac = 37.85'

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 09:50		4.49	24.2	0.00	0.82	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION

WEATHER:	Clear, Sunny, 75°F, light brise SE
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: T. PARKER	OBSERVER: D. HOWARD

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO. 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE, SUITE 100, KENNESAW, GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-10 Purge DEPTH TO PRODUCT: N/A DATE: 6-3-2010

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 1000

SAMPLE METHOD: Bailer GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 27.96' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: 45.2

WATER Column HT = 17.24' x 0.163 = 2.8 gal x 3 = 8.4 Gal.

Arrived at: 0815 PURGE VOLUME: 8.4 WELL DIAMETER (inches): 2-IN

Initial PID =

Bailing PID =

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 0835		4.95	20.3	0.03	2.16	400 (ml)	
0850	2.0	5.12	20.2	0.03	1.51	350	29.95
0910	4.0	5.38	20.3	0.05	0.32	350	29.84
0920	5.0	5.50	20.4	0.06	0.67	350	29.35
0930	6.0	5.48	20.4	0.05	0.90	350	29.60
0940	7.0	5.56	20.4	0.06	0.72	350	29.70
0950	8.0	5.59	20.5	0.06	0.53	350	29.76
0955	8.5	5.62	20.5	0.06	0.54	350	29.76
1000	Sample	Time					

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION		
WEATHER:	Overcast, Humid, temp 75°F	
SHIPPED VIA:	FedEX	
SHIPPED TO:	Test America-North Canton, OH	
SAMPLER: Daniel Howard	OBSERVER:	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC
3200 TOWN POINT DRIVE, SUITE 100, KENNESAW, GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-11 DEPTH TO PRODUCT: N/A DATE: 6-2-10

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 11:25

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 49.66' DEPTH TO PASSIVE DIFFUSION BAG (btoc) _____

TOTAL DEPTH: _____

Arrived at: 11:16 PURGE VOLUME: _____ WELL DIAMETER (inches): 2-IN

Initial PID = N/A

Bailing PID = ↓

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		4.77	26.2	0.100	1.04	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Clear, Sunny, Light breeze, 76°F		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. Parker		OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW, GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-12 DEPTH TO PRODUCT: N/A DATE: 6-2-2010

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 11:40

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 47.29 DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 11:35 PURGE VOLUME: WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID =

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		4.64	25.6	0.00	0.92	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Clear Sunny, light breeze, 77°F		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. PARKER		OBSERVER: D. HOWARD	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-13 DEPTH TO PRODUCT: N/A DATE: 6-2-10

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 12:00

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 8.25' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 11:00 PURGE VOLUME: WELL DIAMETER (inches):
Initial PID = N/A 2-IN
Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		4.13	25.9	0.00	1.18	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Clear, Sunny, humid, 84°F		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. Parker		OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100, KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-14 PDB DEPTH TO PRODUCT: N/A DATE: 6-2-2010

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 09:15

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 64.66' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 08:48 PURGE VOLUME: WELL DIAMETER (inches): 2-IN

Initial PID = N/A

Bailing PID = N Depth to first Ring = 73.25'

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		4.79	23.5	0.00	0.92	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION			
WEATHER:	Clear, Sunny, 74°F		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. PARKER		OBSERVER: D. HOWARD	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW,GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-14 Purge** DEPTH TO PRODUCT: N/A DATE: 6/3/10

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 1315

SAMPLE METHOD: Bailer GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 64.66' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: 86.5'

Arrived at: 1110 WATER Column Ht: 21.84' x 0.163 = 3.56gal X3 = 10.7 gal

Initial PID = NA PURGE VOLUME: 10.7gal. WELL DIAMETER (inches): 2-IN

Bailing PID =

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1125		7.16	20.4	0.45	0.30	400 (ml)	
1145	2.0	7.15	19.8	0.46	0.58	400	64.66
1205	4.0	7.16	20.1	0.46	0.80	400	64.66
1225	6.0	7.16	20.0	0.46	0.00	400	64.66
1245	8.0	7.17	20.0	0.46	0.00	400	64.66
1255	9.0	7.15	20.1	0.46	0.0	400	64.66
1305	10.0	7.18	20.1	0.46	0.0	400	64.66
1312	10.7	7.17	20.2	0.46	0.0	400	64.66
1315	Sample	Time					

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION	
WEATHER:	Partly Sunny, Humid, Temp 85°F
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: Daniel Howard	OBSERVER:

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

2.5.5

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW, GA 30144
PHONE: (770) 421-3400 / FAX (770) 421-3486

WELL ID: MW-15 DEPTH TO PRODUCT: N/A DATE: 6-2-2010

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 10:53

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 4.71' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: _____

Arrived at: 10:44 PURGE VOLUME: _____ WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		4.40	26.8	0.00	1.66	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Clear, Sunny, 76°F		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER:	T. PARKER	OBSERVER:	D. Howard

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE (770) 421-3400 / FAX (770) 421-3486

WELL ID: MW-16 DEPTH TO PRODUCT: N/A DATE: 6-2-2010

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 10:25

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 4.30' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 10:22 PURGE VOLUME: WELL DIAMETER (inches):

Initial PID = N/P 2-IN

Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 10:30		4.22	21.8	0.00	1.11	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION	
WEATHER:	Clear, Sunny, 74°F
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: T. PARKER	OBSERVER: D. HOWARD

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE, SUITE 100, KENNESAW, GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-17 DEPTH TO PRODUCT: DATE: 8-2-10

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 10:40

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 11.90' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 10:35 PURGE VOLUME: WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 10:45		4.43	25.5	0.00	1.58	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Clear, Sunny 77°F		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. PARKER		OBSERVER: D. HOWARD	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO. 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-18 DEPTH TO PRODUCT: N/A DATE: 6-2-2010 (SD 6-2-2010)

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: ~~10:17~~ 10:15

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 5.80 DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 10:08 PURGE VOLUME: WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 10:19		4.33	22.8	0.01	1.11	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION	
WEATHER:	Clear, Sunny, 75°F
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: T. Parker	OBSERVER: D. Howard

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100, KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-19 PDB DEPTH TO PRODUCT: N/A DATE: 6-2-2010

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 09:00

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 31.37' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 08:48 PURGE VOLUME: WELL DIAMETER (inches): 2-IN

Initial PID = N/A

Bailing PID = N Dist. from Cap to 1st Rng = 38.55'

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		4.57	24.3°C	0.03	0.8	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION			
WEATHER:	Clear, Sunny, 74°F		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. Parker		OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO.: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-19 Purge** DEPTH TO PRODUCT: N/A DATE: 6-3-10

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 13:45

SAMPLE METHOD: Bailer GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 31.37' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

PUMP INTAKE @ 38.55' btoc TOTAL DEPTH: 46.5'

WATER Column HT: 15.13' x 0.163 2.47 gal x 3 = 7.4 GAL.

Arrived at: 11:55 PURGE VOLUME: 7.4 gal. WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 12:10		Begin Purging MW-19				( )	
12:25	1.0	5.35	21.8	0.08	2.92	315	31.75'
12:37	2.5	5.81	20.2	0.10	0.18	320	31.74'
13:00	4.0	6.08	20.4	0.14	0.12	320	31.74'
13:12	5.0	6.13	20.3	0.15	0.10	320	31.75'
13:27	6.0	6.22	20.3	0.15	0.12	320	31.74'
13:38	7.0	6.24	20.4	0.16	0.10	325	31.75'
13:44	7.4	6.25	20.4	0.16	0.10	325	31.75'

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION			
WEATHER:	Clear, Sunny, Hot, 89°F, humid		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. Parker		OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100, KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-20 PDB DEPTH TO PRODUCT: _____ DATE: 6/1/10

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 13:47 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 79.97' DEPTH TO PASSIVE DIFFUSION BAG (btoc) _____

TOTAL DEPTH: ~~79.97'~~ 6-1-10

Arrived at: 13:30 PURGE VOLUME: N/A WELL DIAMETER (inches): 2-IN

Initial PID = N/A

Bailing PID = 0 MEASUREMENT TO FIRST PDB BAG ATTACHMENT = 93.4'

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		4.59	27.6	0.03 mS/cm	1.69	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B ✓	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM ✓	14 Dioxane
				BOTTLE LOT # 0412001LK

GENERAL INFORMATION			
WEATHER:	Partly Cloudy - 80°F		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. PARKER		OBSERVER: D. HOWARD	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-20 Purge DEPTH TO PRODUCT: _____ DATE: 6/2/10

PURGE METHOD: Low Flow/Low Stress Pump Or Bailer TIME: 1730

SAMPLE METHOD: Bailer GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 80.08 DEPTH TO PASSIVE DIFFUSION BAG (btoc) _____

TOTAL DEPTH: 107

Arrived at: 1420 PURGE VOLUME: 26.92 x 0.163 = 4.39 gal x 3 = 13.2 gal WELL DIAMETER (inches): 2-IN

Initial PID = NA

Bailing PID = NA

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1500		6.91	23.0	0.46	3.71	300 ( )	
1525	1.75	7.00	22.3	0.47	1.70	300	80.25
1550	4.5	7.00	21.8	0.47	1.34	400	80.23
1615	6.75	7.00	21.8	0.47	3.36	400	80.25
1635	9.0	7.01	21.8	0.47	3.13	400	80.23
1700	11.25	6.98	21.8	0.47	1.48	400	80.25
1725	13.25	6.98	21.9	0.47	1.41	400	80.22
1730	Sample	Time					

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION	
WEATHER:	Hot + Humid, temp 90°F
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: Daniel Howard	OBSERVER:

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE, SUITE 100, KENNESAW, GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-21 DEPTH TO PRODUCT: N/A DATE: 6-1-2010

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 16:25 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 25.52' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: _____

Arrived at: 16:17 PURGE VOLUME: _____ WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N/A

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 16:32		4.28	25.5	0.03	2.0	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Partly Cloudy, light breeze, 86°F, humid		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. Parker		OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 // FAX: (770) 421-3486

WELL ID: MW-22 DEPTH TO PRODUCT: N/A DATE: 6-1-10

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 15:35 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 89.64' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 15:21 PURGE VOLUME: WELL DIAMETER (inches):
Initial PID = N/A 2-IN
Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	6-1-10 SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:		5.34	25.8	0.000.01	0.40	( )	

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION

WEATHER:	Partly cloudy, 89°F, Hot humid
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH
SAMPLER: T. Parker	OBSERVER: D. Howard

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-23 DEPTH TO PRODUCT: _____ DATE: 6-1-2010

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 15:02 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 79.11' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: _____ _____

Arrived at 14:54 PURGE VOLUME: _____ WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 14:10		4.52	26.6	0.03	1.22	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Partly Cloudy, 87°F many gnats		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: JTP/DLH		OBSERVER: DLH	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-24 DEPTH TO PRODUCT: N/A DATE: 6-1-2010

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 16:58 ✓

SAMPLE METHOD: Bailer Or Passive Diffusion Bag GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 85.33' DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH:

Arrived at: 16:48 PURGE VOLUME: WELL DIAMETER (inches):

Initial PID = N/A 2-IN

Bailing PID = N

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 17:02		4.32	26.5	0.00	1.33	( )	
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Partly cloudy, humid, 86°F		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH		
SAMPLER: T. Parker		OBSERVER: D. Howard	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-25 Purge** DEPTH TO PRODUCT: NE DATE: 6/24/10

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME:

SAMPLE METHOD: Bailer GRAB (x) COMPOSITE ( )

DUP./REP. OF: DEPTH TO WATER: 75,27 DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: 107,0

Arrived at: 1235 PURGE VOLUME: 5,39 X 3 = 16,18 WELL DIAMETER (inches): 2-IN

Initial PID =

Bailing PID =

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1300	0,25	8,53	25,78	0,421	130,4	250 ( )	75,47
1316	1,0	7,25	24,22	0,443	49,4	250	75,66
1332	2,0	7,20	22,56	0,440	30,6	250	75,66
1348	3,0	7,22	22,72	~~0,443~~ 0,436	16,4	250	75,66
1404	4,0	7,21	22,38	0,436	13,1	250	75,66
1420	5,0	7,22	22,51	0,436	12,9	250	75,66
1436	6,0	7,20	22,14	0,435	11,3	250	75,66
1452	7,0	7,20	22,04	0,435	13,6	250	75,66
1508	8,0	7,19	21,88	0,436	12,6	250	75,66
1524	9,0	7,19	21,88	0,435	12,2	250	75,66
1540	10,0	7,20	22,58	0,432	11,9	250	75,66
1556	11,0	7,19	22,32	0,436	11,0	250	75,66
1612	12,0	7,19	22,37	0,436	10,7	250	75,66
1628	13,0	7,18	22,63	0,436	9,3	250	75,66
1644	14,0	7,18	22,73	0,437	8,8	250	75,66
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION		
WEATHER:		
SHIPPED VIA:	FedEX	
SHIPPED TO:	Test America-North Canton, OH	
SAMPLER:		OBSERVER:

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

2 of 2

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-25 Purge** DEPTH TO PRODUCT: NE DATE: 6/24/10

PURGE METHOD: Low Flow/Low Stress :Pump Or Bailer TIME: 1720

SAMPLE METHOD: Bailer GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 75.27 DEPTH TO PASSIVE DIFFUSION BAG (btoc) _____

TOTAL DEPTH: 107.0

Arrived at: 1235 PURGE VOLUME: 5.39X3=16.18 WELL DIAMETER (inches): 2-IN

Initial PID = _____

Bailing PID = _____

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial:							
1700	15.0	7.18	22.68	0.436	8.8	250	75.66
1716	16.0	7.17	22.73	0.438	8.7	250	75.66
1720	Collect	Sample					

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION		
WEATHER:	HOT - HUMID	
SHIPPED VIA:	FedEX	
SHIPPED TO:	Test America-North Canton, OH	
SAMPLER: EVER GUILLEN	OBSERVER:	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: HMW-26 DEPTH TO PRODUCT: NA DATE: 10-20-10

PURGE METHOD: Low Flow/Low Stress Pump TIME: 12:52

SAMPLE METHOD: Pump GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: 7'BTOC = 3.1'BGS DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: 6'BGS NA

Arrived at: NA PURGE VOLUME: .035(1) WELL DIAMETER (inches):

Initial PID = NA ~~2 IN~~ 3/4

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level	TDS(ppt)
Initial: 12:35	2Gal Development	6.27	18.8	0.25	22.7	250 (5)	Nm	0.12
12:40	.1	6.32	19.0	0.25	11.2	" "	Nm	0.12
12:45	.3	6.35	19.1	0.26	6.67	" "	Nm	0.13
12:50	.5	6.34	19.1	0.26	3.74	" "	Nm	0.13

COMMENTS: 12:52 TAKe Sample HMW26-102010

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	12	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Cloudy & Showers 70°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH or AES - Atlanta, GA		
SAMPLER:	Jeff Moore	OBSERVER:	Thurmond Neal

~~[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]~~ X.0123

2.9

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC.
3200 TOWN POINT DRIVE SUITE 100, KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: ~~H~~MW-27 DEPTH TO PRODUCT: NA DATE: 10-20-10

PURGE METHOD: Low Flow/Low Stress :Pump TIME: 11:12

SAMPLE METHOD: Pump GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: 6.84 BTOC = 4.04 BGS DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: 7.2 BGS NA

Arrived at: NA PURGE VOLUME: .049 (1vol) WELL DIAMETER (inches):

Initial PID = NA ~~2 IN~~ 3/4 in

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level	TDS (ppt)
Initial: 10:55	1.2 For Development	5.42	18.9	.07	111	240 (7)	Nm	.07
11:00	0.1	5.44	18.9	.07	42	" "	Nm	.03
11:05	0.3	5.44	19	.07	14	" "	Nm	.03
11:10	0.5	5.44	19	.07	4.8	" "	Nm	.03

COMMENTS: 11:12 Sample HMW27-102010

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3 2	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION	
WEATHER:	Cloudy Chance Rain 70°
SHIPPED VIA:	FedEX
SHIPPED TO:	Test America-North Canton, OH or AES - Atlanta, GA
SAMPLER: Jeff Moore	OBSERVER: Thurmond Neal

~~[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]~~ .0123 x water column

6.84
2.80
4.04

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

MACTEC ENGINEERING AND CONSULTING OF GEORGIA, INC
3200 TOWN POINT DRIVE SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: ~~H~~MW-28 DEPTH TO PRODUCT: NA DATE: 10-20-10

PURGE METHOD: Low Flow/Low Stress :Pump TIME: 10:17

SAMPLE METHOD: Pump GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: 2.69 BGS = 5.59 BTOC DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: 7.1' BGS NA

Arrived at: NA PURGE VOLUME: 0.054 WELL DIAMETER (inches):

Initial PID = NA ~~2~~ 3/4 in

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level	TDS (PPT)
Initial: 10:00	5 For Development	5.60	18.6	0.11	72	300 (5')	NM	.06
10:05	.5	5.68	18.7	0.10	9.65	" "	NM	.05
10:10	1.5	5.68	18.7	0.10	4.69	" "	NM	.05
10:15	2.5	5.68	18.7	0.10	3.42	" "	NM	.05

COMMENTS: 10-17-Sample HMW28-102010

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	~~3~~ 2	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Cloudy & mild 70°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Test America-North Canton, OH or AES - Atlanta, GA		
SAMPLER: Jeff Moore		OBSERVER: Thurmond Neal	

~~[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]~~ $V = \pi r^2 h = 0.0123 \times$ water column height

Name of Document: Addendum to Voluntary Remediation Program Application			
Document Date: December 22, 2010			
Date Submitted to EPD: December 27, 2010			
Name and Address	**Date Sent**	**Number of Copies**	**Shipping Method**
Ms. Alexander Cleary Program Manager Hazardous Sites Response Program Georgia Environmental Protection Division 2 Martin Luther King, Jr. Drive, SE Suite 1462 East Floyd Tower Atlanta, Georgia 30334	12/23/2010	3	FedEx 1-paper copy 2-PDF format on CD
Mr. David Sordi, P.E. Manager Environmental Engineering IR Corporate Center 722 Davis Hill Road, Center Conway, NH 03813		1	US Mail 1- PDF format on CD
Mr. Aaron Kleinbaum, P.E., Esq Vice President – Environment, Health and Safety and Deputy General Counsel Ingersoll Rand Company One Centennial Avenue Piscataway, NJ 08854		1	US Mail 1- paper copy
Mr. David Kolb Operations Manager Thermo King Corporation 1430 Highway 24 East Louisville, Georgia 30434		1	US Mail 1- paper copy 1-PDF format on CD
<u>File Copy:</u> MACTEC Engineering and Consulting 3200 Town Point Drive Kennesaw, GA 30144		1	In house 1- paper copy 1- PDF format on CD

APPENDIX B

VRP STATUS REPORT NO. 10

VOLUNTARY REMEDIATION PLAN STATUS REPORT NO. 10

Thermo King Corporation
Louisville, Jefferson County, Georgia
HSI Site No. 10702

Prepared for:	Thermo King Corporation 1430 Georgia Highway 24 East, Louisville, Georgia 30434
Date:	March 2016
Prepared by:	Amec Foster Wheeler Environment & Infrastructure, Inc. 1075 Big Shanty Road NW, Suite 100, Kennesaw, Georgia 30144
Project No.:	6122090322

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1.0 PE CERTIFICATION

"I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Gregory J. Wrenn/ Georgia P.E. #25565
Printed Name and GA PE Number

March 9, 2016
Date

Signature and Stamp

2.0 INTRODUCTION AND BACKGROUND

This Voluntary Remediation Plan Semi-Annual Status Report No. 10 (Status Report), submitted as an attachment to the 2016 VRP Compliance Status Report, was prepared in accordance with the Voluntary Remediation Program (VRP) for the Thermo King Corporation site, Hazardous Site Inventory (HSI) No. 10702/Tax Parcel 0090-024. EPD requested in their March 10, 2011 approval letter that status reports be submitted in September and March. Status Report numbers 1 through 9 covered the activities from March 2011 through July 2015. The tenth sampling event was conducted in December 2015 to obtain a complete five years of monitoring data for the VRP CSR. This tenth Status Report covers the activities conducted from July 2015 through December 2015.

The Thermo King site is located at 1430 Highway 24 East in Louisville, Jefferson County, Georgia. The site soil and groundwater impacts were delineated under the Georgia Hazardous Site Response Act (HSRA) and certified to risk reduction standards. HSRA Compliance Status Reports were prepared and submitted December 17, 2003 and March 21, 2007. EPD approved the Compliance Status Report and requested a Corrective Action Plan (CAP). An initial VRP Application, dated January 29, 2010 and an Addendum, dated December 22, 2010, were submitted to EPD to enter the site into the VRP. The VRP Application was submitted in lieu of a HSRA CAP. The VRP Application Addendum contained a revised Voluntary Investigation and Remediation Plan (VIRP) and addressed EPD comment letters dated May 17, August 31, and October 15, 2010. On March 10, 2011, EPD approved the VIRP and accepted the Thermo King site into the VRP. Nine Status Reports have been submitted to EPD covering the time period from March 2011 to September 2015. This tenth Status Report documents the semi-annual groundwater, seep and surface water monitoring conducted in December 2015, and the inspection of the rip-rap blanket.

3.0 WORK PERFORMED SEPTEMBER TO DECEMBER 2015

The activities currently identified to be performed at the Thermo King site under the VRP are outlined in the VIRP, dated December 22, 2010, the EPD VIRP approval letter dated March 10, 2011, and the EPD VIRP comment letter dated March 10, 2011. Activities performed since September 2015 include semi-annual groundwater, seep, and surface water sampling and analysis and inspection of the rip-rap blanket and are described in the following sections.

3.1 December 2015 Groundwater, Seep, and Surface Water Sampling

3.1.1 Groundwater Elevations

Prior to collecting samples for groundwater quality analysis, groundwater elevations were measured as noted below:

- Fourteen Uppermost Water-Bearing Zones (UWBZ) wells (MW-1 to MW-13, and MW-19).
- Five wells screened in the colluvial/alluvial soils adjacent to Manson Branch (MW-15, MW-16, MW-26, MW-27, and MW-28).
- Eight Intermediate Water-Bearing Zone (IWBZ) wells (MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23, and MW-25).
- One well (MW-24) screened in the lower water-bearing zone.

Groundwater elevations are summarized on Table 1. The December 2015 Uppermost Water-Bearing Zone (UWBZ) groundwater elevations were generally on average 0.2 foot lower than those measured in July 2015; Intermediate Water-Bearing Zone (IWBZ) groundwater elevations were on average 0.2 feet higher than those recorded in July 2015. When compared to the January 2015 levels, the December 2015 levels in the UWBZ were about the same and the IWBZ levels were 0.3 feet higher. Groundwater elevations in the UWBZ are more sensitive to variation in rainfall than are elevations in the IWBZ. The colluvial/alluvial wells showed an increase in elevation from July to December 2015. Groundwater elevations in the five wells screened in the colluvial/alluvial soils adjacent to Manson Branch are sensitive to both the volume of discharge from seeps in the UWBZ and to surface water elevations in Manson Branch which are influenced by rainfall and surface water runoff. Potentiometric surface maps of the UWBZ and IWBZ based on groundwater level measurements made on December 14, 2015 are presented on Figures 1 and 2. Groundwater flow directions in the UWBZ are to the east toward Manson Branch. The groundwater in the UWBZ flows from the west to the east and then surfaces as seeps on the west slope above Manson Branch. Groundwater seeps flow toward Manson Branch through interrupted surface flow and as groundwater flow in the colluvial/alluvial soil strata to Manson Branch. Groundwater flow directions in the IWBZ is to the southwest. Both water-bearing zones flow directions are consistent with previous interpretations.

An estimate of the average groundwater flow rates for UWBZ and IWBZ were calculated using Darcy's equation:

$$V = Ki/ne$$

Where:
V = velocity of groundwater in (feet/year)
K = hydraulic conductivity in (feet/year)
i = gradient in (feet/foot)
ne = effective porosity (dimensionless) (estimated to be 0.25 for sands)

The hydraulic conductivity for the UWBZ ranged from 0.0005 to 0.0012 feet per minute (ft/min) (262.8 to 630.7 feet per year) (2007 CSR). The gradient in the UWBZ was estimated from Figure 1 potentiometric surface map to be approximately 0.0039 to 0.0047 feet/foot. The estimated average groundwater flow velocity in the UWBZ was calculated to range from about 5 to 12 feet per year. The hydraulic conductivity for the IWBZ was estimated to be 0.0029 (ft/min) (1533 ft/yr). The horizontal gradient for the IWBZ was estimated from the December 2015 potentiometric surface map to be 0.0023 feet/foot. The estimated average groundwater velocity in the IWBZ was calculated to be about 17 feet per year. These rates are similar to rates observed previously.

The vertical gradient was calculated in UWBZ and IWBZ monitoring well pairs MW-1/MW-22, MW-5/MW-25, and MW-19/MW-14. In the three well pairs there is a downward gradient from the UWBZ to the IWBZ at 1.3, 0.8, and 0.9 feet/foot, respectively. The vertical gradient from the IWBZ to the deeper zone in well pair MW-25 and MW-24 was a downward gradient of 0.4 feet/foot.

3.1.2 Groundwater Samples

Groundwater samples were collected from monitoring wells MW-3, MW-5, MW-10, MW-14, MW-19, MW-20, MW-22, MW-25, MW-27, and MW-28 on December 15 and 16, 2015. Low flow/low stress purging methodology employing bladder pumps and a peristaltic pump were used to purge and sample the monitoring wells in general accordance with USEPA Region 4 Science and Ecosystem Support Division (SESD) Groundwater Sampling Procedure SESDPROC-301-R3. Prior to purging water, levels and total well depths were measured to calculate the amount of water to purge from the well. Water levels and total depths were measured using an electronic water level indicator that had been decontaminated prior to insertion into the well. Decontamination consisted of a wash and rinse with detergent and distilled water, a rinse with distilled water and dried with a paper towel.

Monitoring wells MW-3, MW-5, MW-10, MW-14, MW-19, MW-20, MW-22, and MW-25 were purged using a 1.75-inch diameter stainless steel bladder pump equipped with a Teflon bladder. Teflon-lined tubing was used as the discharge tubing from the pump to the discharge point at the top of the well casing. The monitoring wells were purged of three well volumes each and purged at a rate such that the water levels did not fluctuate more than 0.3 feet. Water quality parameters of pH, specific conductance, temperature and turbidity were measured and record after each well volume. Upon completion of purging three well volumes and stabilization of water quality parameters, water samples were collected from the wells. While the bladder pump continued to pump at the same rate as used during purging, groundwater samples were collected by filling laboratory-provided sample containers directly from the Teflon-lined discharge tubing. The bladder pump was decontaminated by washing with phosphate-free detergent and water, rinsed with isopropyl alcohol, and rinsed with distilled water prior to insertion in each well. New tubing and bladders were used in each of the wells sampled and then disposed. Monitoring wells MW-27 and MW-28 were purged with a peristaltic pump. Teflon-lined discharge tubing was inserted down the well casing and connected to silicon tubing that was inserted through the peristaltic pump drive head. The monitoring wells were purged of three well volumes each and purged at a rate such that the water levels did not fluctuate more than 0.3 feet. Water quality parameters of pH, specific conductance, temperature and turbidity were measured and recorded after each well volume. Upon completion of purging three well volumes and stabilization of water quality parameters, the Teflon-lined tubing was disconnected from the drive head silicon tubing and water samples were

collected from the wells by using the "drinking-straw" method to fill the sample containers. New tubing was used at each of the wells sampled. The sample containers were capped with Teflon-lined septum caps and placed in a sample cooler with ice and shipped to the laboratory under chain of custody protocol.

The depths where the pumps and tubing intakes were positioned for sampling are indicated on the field sampling forms in Appendix A in this report. The groundwater samples were analyzed for site-specific volatile organic compounds (VOCs) using USEPA Method 8260B. Those monitoring wells (MW-5, MW-14, MW-19, MW-20, MW-25, MW-27, and MW-28) with prior consistent detections of chlorinated VOCs were also analyzed for 1,4-dioxane using USEPA Method 8260B selective ion monitoring (SIM) to achieve a lower quantitation limit. Monitoring wells which have had sporadic trace detections of chlorinated VOCs, like MW-3 and MW-10, or have been non-detect, like MW-22, were not analyzed using the SIM method because there was no indication 1,4-dioxane should be present at these locations, i.e., chlorinated VOCs were not present. The monitoring well locations are shown on potentiometric surface maps Figures 1 and 2 for the Uppermost and Intermediate Water Bearing Zones, respectively. Groundwater sample analytical results are summarized on Table 2 and laboratory reports are in Appendix A. The December 2015 groundwater samples were analyzed by Pace Analytical Laboratory in Huntersville, North Carolina.

3.1.3 Seep Samples

Water samples were collected on December 15-16, 2015 from all of the seven seeps (MB#2, Seep 2, Seep B, Seep G, Seep H, Seep I and Seep L) as listed in the VIRP. Seeps MB#2 and H were encased in perforated plastic culvert-style pipes inserted over the original seep locations when the rip-rap blanket was installed in 2012. Samples of the seep water were collected by directly filling pre-cleaned and preserved sample containers with water that appeared at the ground surface. These seep samples were analyzed for site-specific VOCs including 1,4-dioxane using USEPA Method 8260B. The seep sample analytical results are summarized on Table 3; the field sampling forms and laboratory reports are provided in Appendix A. The December 2015 seep samples were analyzed by Pace Analytical Laboratory in Huntersville, North Carolina.

3.1.4 Surface Water Samples

Surface water samples were collected from Manson Branch on December 15, 2015. Surface water samples were collected from four stream locations (MB#3, MB#5, MB#15, and MB#16). The stream sample locations are shown on Figure 1. Samples of the surface water were collected by submerging and directly filling the pre-cleaned and preserved sample containers with surface water. The surface water samples were analyzed for site-specific VOCs and 1,4-dioxane using USEPA Method 8260B. The surface water sample analytical results are summarized on Table 3, and the field sampling forms and the laboratory reports are provided in Appendix A. The surface water samples were analyzed by Pace Analytical Laboratory in Huntersville, North Carolina.

3.1.5 Financial Assurance

The financial assurance for 2015 was submitted to EPD on May 4, 2015. The 2015 VRP financial assurance was a letter confirming the existing cost estimate and financial assurance amount continue to be sufficient to cover the cost of remediation as presented in the Voluntary Remediation Plan, dated December 22, 2010. An Irrevocable Standby Letter of Credit that

automatically renews annually was provided to the EPD in May 2011 for the VRP financial assurance.

3.2 Analytical Results

The following sections describe the results of the analysis of groundwater, seep, and surface water samples collected on December 15 and 16, 2015.

3.2.1 Groundwater in the Uppermost Water-Bearing Zone and Colluvial/Alluvial Deposits

Groundwater samples were collected during the December 15-16, 2015 sampling event from UWBZ monitoring wells MW-3, MW-5, MW-10, and MW-19. Monitoring wells MW-27 and MW-28, which screen the colluvial/alluvial deposits associated with Manson Branch, were also sampled. The analytical results for these wells are summarized on Table 2 and on Figure 3 (UWBZ wells MW-3, MW-5, and MW-19) and on Figure 4 (colluvial/alluvial wells MW-27 and MW-28).

TCE and chloroform were detected in MW-10 at concentrations of 1.7 and 1.3 µg/L, consistent with previously reported results. As shown on Figure 3, TCE concentrations in MW-3 have decreased since sampling was initiated in 2000, have been below the TCE MCL of 5 µg/L since 2008, and have been non-detect in the four most recent sampling events. Between the January 2012 and January 2015 sampling events, TCE concentrations in MW-5 increased from 230 to 654 µg/L. The July and December 2015 TCE concentrations were 354 and 237 µg/L, respectively, indicating a change from the previous trend of increasing TCE concentrations.

From mid-2010 to early 2013, TCE concentrations in MW-19 (located downgradient of wells MW-3 and MW-5 and just upgradient of the slope from which UWBZ groundwater discharges to seeps above Manson Branch) were relatively stable at concentrations ranging between 4000 and 6400 µg/L. Since mid-2013, TCE concentrations have decreased to 1720 µg/L.

Cis-1,2-dichloroethene has not been detected in MW-3 or MW-10 samples. The December 2015 cis-1,2-dichloroethene concentrations reported in MW-5 and MW-19 were <2.0 and <20 µg/L, respectively, and were generally consistent with recently reported results.

Figure 4 shows TCE and cis-1,2-dichloroethene concentrations reported in samples from monitoring wells MW-27 and MW-28. These wells are screened in near-surface colluvial/alluvial soils at locations west of Manson Branch, between the seeps downgradient from MW-19 and Manson Branch. Since monitoring was initiated in 2010, TCE concentrations in MW-28 have been relatively stable at approximately 5 µg/L, while concentrations in MW-27 have fluctuated between approximately 5 and 20 µg/L. The most recent TCE concentration in MW-27 was 8.2 µg/L. During the same monitoring period, cis-1,2-dichloroethene concentrations in these two wells have also fluctuated, with concentrations ranging from approximately 5 to 25 µg/L, respectively. The most recent cis-1,2-dichloroethene concentration in both MW-27 and MW-28 was 26.6 µg/L.

Two other chlorinated VOCs (1,1-dichloroethene and chloroform) were detected in 2015 groundwater samples from alluvial and UWBZ wells, generally at concentrations similar to those previously reported.

Hexachloro-1,3-butadiene has been detected in groundwater samples collected from MW-5 in 2013 through 2015 at concentrations ranging from 1.8 to 6.0 µg/L and at 1.8 and 2.1 µg/L in 2014 samples from MW-19. Elevated reporting limits in the 2015 MW-19 samples (<20 to <40 µg/L)

precluded detecting Hexachloro-1,3-butadiene at similar concentrations. Hexachloro-1,3-butadiene is not a known facility constituent and has not been detected in other groundwater samples collected in over 10 years of monitoring. There is not an established regulatory limit for hexahloro-1,3-butadiene.

3.2.2 Groundwater in the Intermediate Water-Bearing Zone

Groundwater samples were collected from IWBZ monitoring wells MW-14, MW-20, MW-22, and MW-25 during the December 2015 sampling event. The analytical results for these wells are summarized on Table 2. The primary constituents detected are TCE, cis-1,2-dichloroethene, and 1,1-dichloroethene. Figure 5 shows historic TCE concentrations reported in IWBZ wells MW-14, MW-20, and MW-25. During the monitoring interval from 2010 through 2012, TCE concentrations in upgradient well MW-14 were reported in the general range of 3500 to 4000 µg/L. TCE concentrations decreased to approximately 2000 µg/L in January 2014 and have fluctuated between approximately 1500 and 2300 µg/L thereafter. A similar concentration pattern is observed in the analytical results for samples collected from MW-25 between 2011 and 2013 when TCE concentrations ranged between approximately 4000 and 4500 µg/L, then dropped to a range between 2000 and 3500 µg/L through 2014 and 2015. TCE has not been detected in downgradient wells MW-20 and MW-22.

Figure 6 shows time trend plots of cis-1,2-dichloroethene. Since IWBZ monitoring was initiated, cis-1,2-dichloroethene concentrations in more upgradient wells MW-14 and MW-25 have been relatively stable, with slightly decreasing concentrations since 2012. Conversely, concentrations in MW-20 since sampling was initiated in 2010 have increased from approximately 20 µg/L to just over 400 µg/L in 2015. Figure 6 shows that the rate of increase in MW-20 samples has decreased with time.

Most recent (December 2015) concentrations of 1,1-dichloroethene in IWBZ wells (from upgradient to downgradient) were 45.4 µg/L in MW-14, 27.0 µg/L in MW-25, 6.4 µg/L in MW-20, and <1.0 µg/L in MW-22. Vinyl chloride was reported in the December 2015 samples from MW-20 (5.0 µg/L) and from MW-25 (<25 µg/L). These results for both 1,1-dichloroethene and vinyl chloride are consistent with those reported for the past few years.

Except for a sample collected in July 2015, flagged due to blank contamination, VOCs have not been detected in downgradient well MW-22 samples (TCE at 1.2 µg/L and naphthalene at 2.8 µg/L were reported in the July sample). MW-22 was resampled in September and neither TCE nor naphthalene or any other VOCs were reported. None were reported in analysis of the December 2015 sample.

3.2.3 Seeps

Historic seep sampling results, including those collected in December 2015, are presented on Table 3. The reported December 2015 VOC concentrations in seep samples are similar to those recently reported. The sample from Seep H exceeded Georgia ISWQC for TCE while the sample from Seep MB#2 exceeded for vinyl chloride. Both seeps are beneath the rip-rap blanket. No VOCs were detected at concentrations exceeding Georgia ISWQC in seeps located beyond the riprap blanket (Seeps #2, G, L, B, and I).

Figures 7 through 12 show time trend plots of six VOCs detected in the seeps for the period from late 2011 through 2015. With some fluctuations noted, these figures illustrate the VOC concentrations in the seeps have been relatively stable or are decreasing.

3.2.4 Surface Water

Surface water samples were collected from the four designated sampling locations in Manson Branch and were analyzed for site-specific VOCs and 1,4-dioxane. Consistent with sampling results for the past 15 years, no constituents were detected (Table 3).

3.3 Update of Groundwater Fate and Transport

3.3.1 Uppermost Water-Bearing Zone

In response to comments received in EPD's July 16, 2012 letter regarding the flow of groundwater from the UWBZ to Manson Branch, as discussed in Appendix D of the VRP Application (December 22, 2010), additional information was provided (Appendix A of Status Report No. 3 and Appendix B in Status Report No. 4) to support Thermo King's conclusion that the discharge of groundwater and associated contaminants (primarily TCE) from the UWBZ is to the seeps and then through the valley floor colluvial/alluvial soils are at concentrations well below those that would result in future TCE exceedances of the ISWQC in Manson Branch. (See response to EPD July 16, 2012 Comment #3 in Appendix A of VRP Status Report No. 3 dated September 10, 2012 and the document "Modeling Contaminant Migration in the Uppermost Water-Bearing Zone" provided as **Appendix D** of the VRP Compliance Status Report.

The 2015 groundwater and seep sampling results continue to support this conclusion.

- The 2015 TCE concentrations in MW-19, the UWBZ well located just upgradient of the seep discharges, are consistent with the recent trend in decreasing concentrations.
- VOC concentrations in seep samples appear to be stable or decreasing for all constituents previously reported, and no VOC detections exceeding ISWQC were reported in samples from seeps located beyond the rip-rap blanket.
- TCE and cis-1,2-dichloroethene concentrations in samples collected from 2010 through 2015 from colluvial/alluvial wells MW-27 and MW-28 were in the general range of 5 to 25 µg/L. Concentration trends are stable to slightly increasing. The concentrations of these constituents are well below those that would represent a potential impact to surface water in Manson Branch.
- VOCs have not been detected in 15 years of surface water sampling from Manson Branch.

3.3.2 Intermediate Water-Bearing Zone

A contaminant migration model for TCE, cis-1,2-dichloroethene, and VC in the Intermediate Zone was presented in Appendix C of the September 2011 VRP Status Report No. 1. This model illustrates the downgradient migration of these constituents to their maximum extent and subsequent retreat and showed the maximum constituent concentrations at well MW-22, the point

of demonstration (POD) well, would not exceed the laboratory reporting limit of one µg/L before the plumes retreated.

The groundwater sampling results for Intermediate Zone monitoring wells MW-14, MW-20, MW-22, and MW-25, are presented on Table 2. As illustrated on Figures 5 and 6, except for cis-1,2-dichloroethene in MW-20, TCE and cis-1,2-dichloroethene in these IWBZ wells has decreased over the past few years and the rate of increase in cis-1,2-dichloroethene concentration is decreasing in MW-20.

Figures 13A, 14A, and 15A and 13B, 14B, and 15B (distance versus concentration graphs for Intermediate Zone wells) illustrate recent (2011 through 2015) concentrations versus those modeled predictions (Appendix A in Status Report No. 3). The graphs show that the 2015 constituent concentrations continue to approximate the model projected concentrations.

3.4 Rip-Rap Blanket Inspection

The inspection of the area conducted in December 2015 showed that a suitable vegetative cover has been established on the slopes leading down to the rip-rap blanket areas, erosion is adequately addressed, and water is flowing beneath the rip-rap surface. There was some sediment accumulation in the check dam near Seep MB#2. No maintenance activities were conducted during this reporting period.

3.5 Plant Closure Activities

Thermo King Corporation ceased manufacturing operations at the Louisville plant near the end of 2012. Subsequently, closure activities were conducted to remove materials and equipment from the facility. As part of the plant closeout activities, the on-site wastewater treatment plant was decommissioned in early 2013 and EPD rescinded, at the request of Thermo King, the Industrial Pre-Treatment Permit WQ-IP-035 in a letter dated May 23, 2013. Thermo King requested EPD terminate the facility's Industrial Storm Water NPDES Permit.

3.6 Environmental Covenant

An Environmental Covenant has been prepared for the Thermo King site. Institutional controls will be used to maintain an incomplete pathway of exposure to impacted groundwater by restricting its use to remediation-related purposes only. The floor slab is designated as an exposure barrier to contact with impacted soil beneath the slab. The covenant and VIRP specify inspections of the floor slab to document the integrity and function of the floor slab as an exposure barrier. Additionally, the covenant directs that any additional environmental sampling and/or subsurface investigations be conducted under the direction of site-specific health and safety plans.

A rip-rap blanket, an engineering control constructed in May 2012, functions to preclude surface exposure of seep water containing constituents at concentration exceeding Georgia In-Stream Water Quality Criteria. The rip-rap blanket is inspected at least semi-annually to confirm the blanket integrity and that it continues to function as intended. If required, maintenance activities are conducted.

After several revisions, a copy of the draft environmental covenant was mailed on July 28, 2014 to the abutting property owners, parties with an interest in the property (Georgia Power), the City of Louisville Mayor, and the Jefferson County Commission Chairman and County Manager; no

comments were received. The final covenant was signed by Thermo King in October 2015, and was forwarded to EPD for signature on October 29, 2015. In a January 27, 2016 teleconference, EPD requested that page 2 of the covenant be revised to include the VRP Compliance Status Report, Status Reports, and operation and maintenance and inspection plans for engineering controls. The page is being revised and will be submitted to EPD to replace the page in the existing covenant. Signature of the environmental covenant by EPD is pending.

4.0 PROFESSIONAL SERVICES HOURS THIS PERIOD

Approximately 169.3 professional service hours have been provided by Amec Foster Wheeler from July 25, 2015 through December 11, 2015. A table of the breakdown of Amec Foster Wheeler hours by month along with a description of the services provided is presented on Table 4. The registered professional engineer responsible for implementation of the VRP at this site is Mr. Gregory Wrenn. Mr. Wrenn has personally charged 9 labor hours to the project to direct and review the various aspects of implementation of the VRP during this reporting period.

TABLES

Table 1: Summary of Groundwater Elevations

Monitoring Well	Water-Bearing Zone Screened	Top of Casing Elevation (ft, NAVD)	Depth to Water from Top of Casing (ft) September 11, 2003	Groundwater Elevation (ft, NAVD) September 11, 2003	Depth to Water from Top of Casing (ft) June 24, 2004	Groundwater Elevation (ft, NAVD) June 24, 2004	Depth to Water from Top of Casing (ft) October 12, 2004	Groundwater Elevation (ft, NAVD) October 12, 2004	Depth to Water from Top of Casing (ft) February 25, 2008	Groundwater Elevation (ft, NAVD) February 25, 2008	Depth to Water from Top of Casing (ft) June 1-3, 2010	Groundwater Elevation (ft, NAVD) June 1-3, 2010	Depth to Water from Top of Casing (ft) June 24, 2010	Groundwater Elevation (ft, NAVD) June 24, 2010
MW-1	Uppermost	333.69	46.79	286.90	47.33	286.36	47.88	285.81	49.47	284.22	46.22	287.47		
MW-2	Uppermost	322.38	37.80	284.58	38.41	283.97	38.77	283.61	40.16	282.22	37.60	284.78		
MW-3	Uppermost	325.45	40.86	284.59	41.42	284.03	41.82	283.63	43.00	282.45	40.70	284.75		
MW-4	Uppermost	323.78	39.52	284.26	40.12	283.66	40.17	283.61	41.42	282.36	39.29	284.49		
MW-5	Uppermost	321.10	39.45	281.65	39.96	281.14	40.06	281.04	40.73	280.37	39.18	281.92	39.27	281.83
MW-6	Uppermost	314.37	31.36	283.01	31.02	283.35	31.53	282.84	32.10	282.27	30.74	283.63		
MW-7	Uppermost	320.23	34.33	285.90	35.04	285.19	35.32	284.91	36.41	283.82	34.31	285.92		
MW-8	Uppermost	329.70	42.00	287.70	42.60	287.10	42.97	286.73	44.39	285.31	41.63	288.07		
MW-9	Uppermost	323.09	36.71	286.38	37.78	285.31	38.47	284.62	40.16	282.93	37.21	285.88		
MW-10	Uppermost	310.05	28.30	281.75	27.99	282.06	29.04	281.01	29.22	280.83	27.96	282.09		
MW-11	Uppermost	333.77	51.08	282.69	50.55	283.22	50.98	282.79	52.71	281.06	49.66	284.11		
MW-12	Uppermost	328.34	47.31	281.03	48.18	280.16	48.67	279.67	50.18	278.16	47.29	281.05		
MW-13	Uppermost	283.71	5.40	278.31	5.66	278.05	9.42	274.29	9.21	274.50	8.25	275.46		
MW-14	Intermediate	311.62	64.64	246.98	64.42	247.20	64.17	247.45	64.41	247.21	64.66	246.96	65.20	246.42
MW-15	Alluvium	260.18	5.36	254.82	4.69	255.49	5.05	255.13	3.68	256.50	4.71	255.47		
MW-16	Alluvium	253.81	4.55	249.26	3.99	249.82	4.40	249.41	3.47	250.34	4.30	249.51		
MW-17	Intermediate	260.48	11.70	248.78	11.51	248.97	11.81	248.67	11.79	248.69	11.90	248.58		
MW-18	Intermediate	254.18	5.61	248.57	5.45	248.73	5.70	248.48	5.62	248.56	5.80	248.38		
MW-19	Uppermost	311.89	31.90	279.99	32.11	279.78	32.34	279.55	32.61	279.28	31.37	280.52	31.57	280.32
MW-20	Intermediate	325.75	79.79	245.96	79.89	245.86	79.67	246.08	79.86	245.89	79.97	245.78		
MW-21	Intermediate	320.49	75.05	245.44	75.12	245.37	75.19	245.30	75.64	244.85	75.52	244.97		
MW-22	Intermediate	334.05	89.16	244.89	89.23	244.82	89.33	244.72	89.65	244.40	89.64	244.41		
MW-23	Intermediate	323.77	78.69	245.08	78.77	245.00	78.80	244.97	79.00	244.77	79.11	244.66		
MW-24	Lower	321.23	not installed				86.67	234.56	87.04	234.19	85.33	235.90	86.38	234.85
MW-25	Intermediate	321.18	not installed										75.27	245.91
MW-26	Alluvium	255.29	not installed											
MW-27	Alluvium	257.50	not installed											
MW-28	Alluvium	251.73	not installed											
Staff Gauge near MW-16	Surface Water	249.80	0.60	249.20	0.88	248.92	0.60	249.20	0.60	249.20	nm			
Hwy 24 Bridge over Manson Branch	Surface Water	257.08	8.80	248.28	5.79	251.29	5.80	251.28	6.64	250.44	nm			

Table 1: Summary of Groundwater Elevations

Monitoring Well	Water-Bearing Zone Screened	Top of Casing Elevation (ft, NAVD)	Depth to Water from Top of Casing (ft) October 21, 2010	Groundwater Elevation (ft, NAVD) October 21, 2010	Depth to Water from Top of Casing (ft) June 6, 2011	Groundwater Elevation (ft, NAVD) June 6, 2011	Depth to Water from Top of Casing (ft) January 16, 2012	Groundwater Elevation (ft, NAVD) January 16, 2012	Depth to Water from Top of Casing (ft) July 9, 2012	Groundwater Elevation (ft, NAVD) July 9, 2012	Depth to Water from Top of Casing (ft) January 7, 2013	Groundwater Elevation (ft, NAVD) January 7, 2013	Depth to Water from Top of Casing (ft) July 8, 2013	Groundwater Elevation (ft, NAVD) July 8, 2013
MW-1	Uppermost	333.69	46.73	286.96	48.02	285.67	49.18	284.51	49.91	283.78	49.88	283.81	48.18	285.51
MW-2	Uppermost	322.38	38.03	284.35	39.01	283.37	40.01	282.37	40.55	281.83	40.54	281.84	38.48	283.90
MW-3	Uppermost	325.45	41.06	284.39	41.87	283.58	42.80	282.65	43.21	282.24	43.18	282.27	41.71	283.74
MW-4	Uppermost	323.78	39.52	284.26	40.42	283.36	41.23	282.55	41.62	282.16	41.43	282.35	40.23	283.55
MW-5	Uppermost	321.10	39.52	281.58	40.04	281.06	40.72	280.38	40.86	280.24	41.06	280.04	39.10	282.00
MW-6	Uppermost	314.37	31.03	283.34	31.22	283.15	32.13	282.24	32.73	281.64	32.74	281.63	30.69	283.68
MW-7	Uppermost	320.23	34.69	285.54	35.47	284.76	36.25	283.98	36.68	283.55	36.73	283.50	34.62	285.61
MW-8	Uppermost	329.70	42.14	287.56	43.03	286.67	44.15	285.55	44.69	285.01	45.04	284.66	42.93	286.77
MW-9	Uppermost	323.09	36.36	286.73	38.88	284.21	40.02	283.07	40.63	282.46	40.36	282.73	38.25	284.84
MW-10	Uppermost	310.05	28.64	281.41	29.03	281.02	29.59	280.46	29.85	280.20	30.03	280.02	27.82	282.23
MW-11	Uppermost	333.77	50.27	283.50	51.34	282.43	52.51	281.26	53.18	280.59	53.42	280.35	51.04	282.73
MW-12	Uppermost	328.34	48.23	280.11	49.12	279.22	50.19	278.15	50.73	277.61	51.04	277.30	48.48	279.86
MW-13	Uppermost	283.71	9.50	274.21	9.99	273.72	10.33	273.38	10.97	272.74	10.93	272.78	7.44	276.27
MW-14	Intermediate	311.62	65.74	245.88	65.56	246.06	66.11	245.51	66.42	245.20	66.21	245.41	64.48	247.14
MW-15	Alluvium	260.18	7.43	252.75	7.5	252.68	5.72	254.46	6.58	253.60	5.00	255.18	3.47	256.71
MW-16	Alluvium	253.81	6.45	247.36	7.03	246.78	5.12	248.69	6.75	247.06	4.89	248.92	3.07	250.74
MW-17	Intermediate	260.48	13.41	247.07	13.13	247.35	13.17	247.31	13.94	246.54	13.23	247.25	11.53	248.95
MW-18	Intermediate	254.18	7.18	247.00	7.04	247.14	6.93	247.25	7.76	246.42	6.97	247.21	5.39	248.79
MW-19	Uppermost	311.89	31.77	280.12	32.22	279.67	32.64	279.25	32.65	279.24	32.70	279.19	30.80	281.09
MW-20	Intermediate	325.75	80.88	244.87	80.62	245.13	81.70	244.05	81.66	244.09	81.90	243.85	80.21	245.54
MW-21	Intermediate	320.49	76.41	244.08	76.08	244.41	77.48	243.01	77.22	243.27	77.77	242.72	76.18	244.31
MW-22	Intermediate	334.05	90.48	243.57	90.22	243.83	91.51	242.54	91.30	242.75	91.80	242.25	90.17	243.88
MW-23	Intermediate	323.77	80	243.77	79.76	244.01	80.82	242.95	80.75	243.02	81.06	242.71	79.33	244.44
MW-24	Lower	321.23	88.88	232.35	86.83	234.40	90.95	230.28	93.62	227.61	92.56	228.67	88.70	232.53
MW-25	Intermediate	321.18	75.91	245.27	75.65	245.53	76.54	244.64	76.61	244.57	76.72	244.46	75.02	246.16
MW-26	Alluvium	255.29	7.00	248.29	7.53	247.76	5.51	249.78	7.96	247.33	5.11	250.18	3.94	251.35
MW-27	Alluvium	257.50	6.84	250.66	8.88	248.62	5.07	252.43	9.73	247.77	4.77	252.73	4.34	253.16
MW-28	Alluvium	251.73	5.59	246.14	6.39	245.34	5.10	246.63	7.32	244.41	4.91	246.82	3.86	247.87
Staff Gauge near MW-16	Surface Water	249.80	1.42	248.38	dry at gauge		1.18	248.62	dry at gauge		1.27	248.53	1.44	248.36
Hwy 24 Bridge over Manson Branch	Surface Water	257.08	6.79	250.29	7.38	249.70	6.33	250.75	6.80	250.28	6.01	251.07	6.78	250.30

Table 1: Summary of Groundwater Elevations

Monitoring Well	Water-Bearing Zone Screened	Top of Casing Elevation (ft, NAVD)	Depth to Water from Top of Casing (ft) January 7, 2014	Groundwater Elevation (ft, NAVD) January 7, 2014	Depth to Water from Top of Casing (ft) June 24, 2014	Groundwater Elevation (ft, NAVD) June 24, 2014	Depth to Water from Top of Casing (ft) January 12, 2015	Groundwater Elevation (ft, NAVD) January 12, 2015	Depth to Water from Top of Casing (ft) July 7, 2015	Groundwater Elevation (ft, NAVD) July 7,2015	Depth to Water from Top of Casing (ft) December 14, 2015	Groundwater Elevation (ft, NAVD) December 14, 2015
MW-1	Uppermost	333.69	47.03	286.66	45.41	288.28	46.71	286.98	46.79	286.90	46.98	286.71
MW-2	Uppermost	322.38	36.80	285.58	36.67	285.71	37.98	284.40	37.72	284.66	37.85	284.53
MW-3	Uppermost	325.45	39.94	285.51	39.78	285.67	40.96	284.49	40.80	284.65	40.75	284.70
MW-4	Uppermost	323.78	38.47	285.31	38.61	285.17	39.00	284.78	39.47	284.31	39.38	284.40
MW-5	Uppermost	321.10	38.27	282.83	38.22	282.88	39.12	281.98	38.79	282.31	38.80	282.30
MW-6	Uppermost	314.37	29.99	284.38	NM	NM	31.00	283.37	30.45	283.92	30.48	283.89
MW-7	Uppermost	320.23	33.59	286.64	33.46	286.77	34.59	285.64	34.18	286.05	34.20	286.03
MW-8	Uppermost	329.70	45.14	284.56	40.79	288.91	42.25	287.45	41.98	287.72	42.20	287.50
MW-9	Uppermost	323.09	36.43	286.66	36.74	286.35	37.26	285.83	37.60	285.49	37.77	285.32
MW-10	Uppermost	310.05	27.61	282.44	27.62	282.43	28.40	281.65	27.81	282.24	27.95	282.10
MW-11	Uppermost	333.77	49.09	284.68	48.91	284.86	50.28	283.49	50.11	283.66	50.21	283.56
MW-12	Uppermost	328.34	47.11	281.23	46.93	281.41	48.17	280.17	47.95	280.39	48.10	280.24
MW-13	Uppermost	283.71	8.32	275.39	8.50	275.21	9.06	274.65	8.50	275.21	9.76	273.95
MW-14	Intermediate	311.62	64.91	246.71	65.04	246.58	65.21	246.41	65.34	246.28	64.90	246.72
MW-15	Alluvium	260.18	4.28	255.90	6.35	253.83	4.45	255.73	5.17	255.01	4.42	255.76
MW-16	Alluvium	253.81	3.87	249.94	4.96	248.85	4.07	249.74	4.94	248.87	4.25	249.56
MW-17	Intermediate	260.48	11.78	248.70	12.26	248.22	12.54	247.94	12.35	248.13	12.34	248.14
MW-18	Intermediate	254.18	5.67	248.51	6.21	247.97	6.31	247.87	6.25	247.93	6.13	248.05
MW-19	Uppermost	311.89	30.32	281.57	30.36	281.53	31.02	280.87	30.68	281.21	30.81	281.08
MW-20	Intermediate	325.75	80.53	245.22	80.35	245.40	80.85	244.90	80.81	244.94	80.44	245.31
MW-21	Intermediate	320.49	76.53	243.96	75.89	244.60	76.70	243.79	76.48	244.01	76.34	244.15
MW-22	Intermediate	334.05	90.53	243.52	90.03	244.02	90.75	243.30	90.56	243.49	90.36	243.69
MW-23	Intermediate	323.77	79.77	244.00	79.56	244.21	80.02	243.75	79.93	243.84	76	248
MW-24	Lower	321.23	87.08	234.15	86.34	234.89	94.41	226.82	88.05	233.18	94.57	226.66
MW-25	Intermediate	321.18	75.40	245.78	75.31	245.87	75.70	245.48	75.65	245.53	75.33	245.85
MW-26	Alluvium	255.29	4.68	250.61	5.86	249.43	5.16	250.13	5.94	249.35	5.47	249.82
MW-27	Alluvium	257.50	4.49	253.01	6.62	250.88	4.66	252.84	5.09	252.41	4.81	252.69
MW-28	Alluvium	251.73	4.13	247.60	5.26	246.47	4.35	247.38	4.70	247.03	4.31	247.42
Staff Gauge near MW-16	Surface Water	249.80	1.38	248.42	dry at gauge		1.10	248.70	1.47	248.33	1.45	248.35
Hwy 24 Bridge over Manson Branch	Surface Water	257.08	6.21	250.87	6.22	250.86	5.40	251.68	5.54	251.54	4.55	252.53

Notes:
ft, NAVD Feet above North American Vertical Datum of 1988
Monitoring wells MW-1 to MW-13, MW-15, MW-16 and MW-19 screened above the uppermost tan and blue-gray clays of the Twiggs Clay (Uppermost Water-bearing Zone)
Monitoring wells MW-14, MW-17, MW-18, and MW-20 to MW-23, and MW-25 screened below the uppermost tan and blue-gray clays of the Twiggs Clay (Intermediate Water-bearing Zone)
nm = not measured
249.80 new elevation of Staff Gauge near MW-16 as of 11/2/2010
Groundwater elevation in MW-23 on 12/14/2015 is anomalous due to a tangled PDB sampler tether prevented an accurate measurement of the depth to water. The depth shown is the depth of the obstruction.

Prepared By/Date: MHA 1/6/2016
Checked By/Date: NJM 1/6/2016

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Sample Depth (well screen interval) (ft. bgs)	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'	69.4'-74.4'
Sample Depth (well screen interval) (ft. btoc)	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2	69.2-74.2
Passive Diffusion Bag Sample Depth (ft. btoc)				72.2-73.7	72.2-73.7	72.2-73.7	72.2-73.7	
Date Sampled	2/25/2000	10/2/2000	2/19/2003	5/5/2004	10/13/2004	4/7/2008	6/1/2010	June 2011
Laboratory	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Purge Method/Sample Method	Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB	
Constituent								
Volatile Organic Compounds - SW8260B - (µg/L)								NOT SAMPLED per VIRP
1,1,1,2-Tetrachloroethane	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethane	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,4-Trimethylbenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
1,4-Dioxane	<500	<250	<200	<250	<250	<250	<50	
Chloroform	**1.7**	<5.0	<5.0	<5.0	<5.0	<5.0	**4.9**	
cis-1,2-Dichloroethene	<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0	
Ethylbenzene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Hexachlorobutadiene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
n-propylbenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
p-Isopropyltoluene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
Methylene chloride	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Naphthalene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Tetrachloroethene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0	
Toluene	**1.3**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Trichloroethene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Vinyl Chloride	<1.0	<2.0	<5.0	<2.0	<2.0	<2.0	<1.0	
m&p-xylenes	<1.0	<5.0	NA	NA	NA	<5.0	<2.0	
o-xylene	<1.0	<2.5	NA	NA	NA	<5.0	<1.0	
Total Xylenes	NA	NA	<5.0	<5.0	<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)								
Total Silver	Metals were not sampled and analyzed			<0.1	<0.1	Metals were not sampled and analyzed		
Dissolved Silver				NA	NA			
Total Cadmium				<0.005	<0.005			
Dissolved Cadmium				NA	NA			
Total Chromium				<0.1	<0.1			
Dissolved Chromium				NA	NA			
Total Lead				<0.015	<0.015			
Dissolved Lead				NA	NA			
Total Copper				<1.0	<1.0			
Dissolved Copper				NA	NA			
Total Nickel				<0.1	<0.1			
Dissolved Nickel				NA	NA			
Total Zinc				<2.0	<2.0			
Dissolved Zinc				NA	NA			

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-2	MW-2	MW-2	MW-2A	MW-2	MW-2	MW-2	MW-2
Sample Depth (well screen interval) (ft. bgs)	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'
Sample Depth (well screen interval) (ft. btoc)	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8	52.8-57.8
Passive Diffusion Bag Sample Depth (ft. btoc)				55.4-56.9	55.4-56.9	55.4-56.9	55.4-56.9	
Date Sampled	2/25/2000	10/3/2000	2/19/2003	5/5/2004	10/12/2004	4/7/2008	6/1/2010	June 2011 January & July 2012, January &July 2013, January & July 2014, January,July& December 2015
Laboratory	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	
Purge Method/Sample Method	Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	
Constituent								
Volatile Organic Compounds - SW8260B - (µg/L)								NOT SAMPLED per VIRP
1,1,1,2-Tetrachloroethane	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethane	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,4-Trimethylbenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
1,4-Dioxane	<500	<250	<200	<250	<250	<250	<50	
Chloroform	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	**2.1**	
cis-1,2-Dichloroethene	<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0	
Ethylbenzene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Hexachlorobutadiene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
n-propylbenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
p-Isopropyltoluene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
Methylene chloride	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Naphthalene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Tetrachloroethene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<1.0	<2.5	<2.5	<5.0	<5.0	<2.5	<1.0	
Toluene	**5.0**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Trichloroethene	**240**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Vinyl Chloride	<1.0	<2.0	<5.0	<2.0	<2.0	<2.0	<1.0	
m&p-xylenes	<1.0	<5.0	NA	NA	NA	<5.0	<2.0	
o-xylene	<1.0	<2.5	NA	NA	NA	<5.0	<1.0	
Total Xylenes	NA	NA	<5.0	<5.0	<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)	Metals were not sampled and analyzed							
Total Silver								
Dissolved Silver								
Total Cadmium								
Dissolved Cadmium								
Total Chromium								
Dissolved Chromium								
Total Lead								
Dissolved Lead								
Total Copper								
Dissolved Copper								
Total Nickel								
Dissolved Nickel								
Total Zinc								
Dissolved Zinc								

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
Sample Depth (well screen interval) (ft. bgs)	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'	55'-60'
Sample Depth (well screen interval) (ft. btoc)	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8	54.8-59.8
Passive Diffusion Bag Sample Depth (ft. btoc)				57.5-59	57.5-59	57.5-59	57.5-59											
Date Sampled	2/25/2000	10/3/2000	2/18/2003	5/6/2004	10/12-13/2004	4/8/2008	6/2/2010	6/3/2010	6/8/2011	1/19/2012	7/11/2012	1/10/2013	7/9/2013	1/9/2014	6/25/2014	1/13/2015	7/8/2015	12/15/2015
Laboratory	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method	Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																		
Volatile Organic Compounds - SW8260B - (µg/L)																		
1,1,1,2-Tetrachloroethane	<150	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<150	<5.0	**57**	**6.7**	**13**	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<150	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<150	<5.0	**13**	**5.1**	**12**	<5.0	<1.0	**1.7**	<1.0	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<150	<5.0	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<150	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<150	<5.0	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<150	<5.0	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	<75000	<250	<400	<250	<250	<250	<50	<50	NA	<100	<100	<100	<50	<150	<150	<150	<150	<150
Chloroform	<150	<5.0	<10	**7.3**	**7.7**	<5.0	**2.3**	**2.3**	**2.7**	**2.8**	**3.0**	**3.0**	**3.2**	**2.5**	**3.5**	**3.7**	**4.0**	**3.9**
cis-1,2-Dichloroethene	<150	<2.5	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<150	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<150	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene	<150	<5.0	NA	NA	NA	<5.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<150	<5.0	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<300	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Naphthalene	<150	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<150	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<150	<2.5	<10	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<150	<5.0	<10	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	**2900**	<5.0	**69**	**8.1**	**15**	<5.0	**1.6**	**2.4**	**1.8**	**1.3**	**3.1**	**3.1**	**2.2**	**3.7**	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	<150	<2.0	<10	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m&p-xylenes	<150	<5.0	NA	NA	NA	<5.0	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-xylene	<150	<2.5	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes	NA	NA	<10	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	<2.0	<2.0	<2.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																		
Total Silver	Metals were not sampled and analyzed			<0.1	<0.1	Metals were not sampled and analyzed												
Dissolved Silver				<0.1	NA													
Total Cadmium				<0.005	<0.005													
Dissolved Cadmium				<0.005	NA													
Total Chromium				<0.1	<0.1													
Dissolved Chromium				<0.1	NA													
Total Lead				<0.015	<0.015													
Dissolved Lead				<0.015	NA													
Total Copper				<1.0	<1.0													
Dissolved Copper				<1.0	NA													
Total Nickel				<0.1	<0.1													
Dissolved Nickel				<0.1	NA													
Total Zinc				<2.0	<2.0													
Dissolved Zinc				<2.0	NA													

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample Depth (well screen interval) (ft. bgs)	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'	53'-58'
Sample Depth (well screen interval) (ft. btoc)	52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9	52.9-57.9
Passive Diffusion Bag Sample Depth (ft. btoc)				'55.5-57	'55.5-57	'55.5-57	'55.5-57	
Date Sampled	2/25/2000	10/3/2000	2/18/2003	5/6/2004	10/12-13/2004	4/8/2008	6/2/2010	June 2011
Laboratory	STL Tampa	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Purge Method/Sample Method	Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB	
Constituent								
Volatile Organic Compounds - SW8260B - (µg/L)								NOT SAMPLED per VIRP
1,1,1,2-Tetrachloroethane	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethane	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,4-Trimethylbenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
1,4-Dioxane	<500	<250	<200	<250	<250	<5.0	<1.0	
Chloroform	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
cis-1,2-Dichloroethene	<1.0	<2.5	<2.5	<5.0	<5.0	<5.0	<1.0	
Ethylbenzene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Hexachlorobutadiene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
n-propylbenzene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
p-Isopropyltoluene	<1.0	<5.0	NA	NA	NA	<5.0	<1.0	
Methylene chloride	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Naphthalene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Tetrachloroethene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<1.0	<2.5	<2.5	<5.0	<5.0	<5.0	<1.0	
Toluene	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Trichloroethene	**16**	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Vinyl Chloride	<1.0	<2.0	<5.0	<2.0	<2.0	<5.0	<1.0	
m&p-xylenes	<1.0	<5.0	NA	NA	NA	<5.0	<2.0	
o-xylene	<1.0	<2.5	NA	NA	NA	<5.0	<1.0	
Total Xylenes	NA	NA	<5.0	<5.0	<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)								
Total Silver	Metals were not sampled and analyzed			<0.1	<0.1	Metals were not sampled and analyzed		
Dissolved Silver				<0.1	NA			
Total Cadmium				<0.005	<0.005			
Dissolved Cadmium				<0.005	NA			
Total Chromium				<0.1	<0.1			
Dissolved Chromium				<0.1	NA			
Total Lead				<0.015	<0.015			
Dissolved Lead				<0.015	NA			
Total Copper				<1.0	<1.0			
Dissolved Copper				<1.0	NA			
Total Nickel				<0.1	<0.1			
Dissolved Nickel				<0.1	NA			
Total Zinc				<2.0	<2.0			
Dissolved Zinc				<2.0	NA			

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-5	MW-5	MW-5		MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
Sample Depth (well screen interval) (ft. bgs)	49'-54'	49'-54'	49'-54'		49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'
Sample Depth (well screen interval) (ft. btoc)	48.8-53.8	48.8-53.8	48.8-53.8		48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8
Passive Diffusion Bag Sample Depth (ft. btoc)						51.4-52.9	51.4-52.9	51.4-52.9	51.4-52.9	
Date Sampled	2/25/2000	10/3/2000	2/18/2003		6/12/2003	5/7/2004	10/12-13/2004	4/7/2008	6/1/2010	6/2/2010
Laboratory	STL Tampa	STL North Canton	STL North Canton		STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton
Purge Method/Sample Method	Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer		PumpLFLS/ Bailer	PumpLFLS/ Bailer/PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS
Constituent										
Volatile Organic Compounds - SW8260B - (µg/L)				DL x25						
1,1,1,2-Tetrachloroethane	<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0
1,1,1-Trichloroethane	<400	<500	**45**	<120	**53**	<45	<42	<12	<8.0	<8.0
1,1-Dichloroethane	<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0
1,1-Dichloroethene	<400	<500	**44**	<120	**65**	<45	<42	<12	**8.9**	**22**
1,2,3-Trichlorobenzene	<400	<500	NA		NA	NA	NA	<12	<8.0	<8.0
1,2,4-Trichlorobenzene	<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0
1,2,4-Trimethylbenzene	<400	<500	NA	NA	NA	NA	NA	<12	<8.0	<8.0
1,3,5-Trimethylbenzene	<400	<500	NA	NA	NA	NA	NA	<12	<8.0	<8.0
1,4-Dioxane	<200000	<25000	<1200		<1300	<2300	<2100	<620	<400	<400
Chloroform	<400	<500	<25	<120	<33	<45	<42	<12	<8.0	<8.0
cis-1,2-Dichloroethene	<400	<250	**15**	<62	**19**	<45	<42	<6.2	<8.0	<8.0
Ethylbenzene	<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0
Hexachlorobutadiene	<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0
n-propylbenzene	<400	<500	NA		NA	NA	NA	<12	<8.0	<8.0
p-Isopropyltoluene	<400	<500	NA		NA	NA	NA	<12	<8.0	<8.0
Methylene chloride	<800	<500	<25	<120	<33	<45	<42	<12	<8.0	<8.0
Naphthalene	<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0
Tetrachloroethene	<400	<500	<25		<33	<45	<42	<12	<8.0	<8.0
trans-1,2-Dichloroethene	<400	<250	<12		<17	<45	<42	<6.2	<8.0	<8.0
Toluene	<400	<500	<25	<120	<33	<45	<42	<12	<8.0	<8.0
Trichloroethene	**7400**	**15000**	**730**	**730**	**1200**	**310**	**320**	**180**	**210**	**210**
Vinyl Chloride	<400	<200	<25		<33	<18	<17	<5.0	<8.0	<8.0
m&p-xylenes	<400	<500	NA		NA	NA	NA	<12	<16.0	<16.0
o-xylene	<400	<250	NA		NA	NA	NA	<12	<8.0	<8.0
Total Xylenes	NA	NA	<25		<33	<5.0	<42	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA		NA	NA	NA	<2.0	<2.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)										
Total Silver						<0.1	<0.1			
Dissolved Silver						<0.1	NA			
Total Cadmium						<0.005	<0.005			
Dissolved Cadmium						<0.005	NA			
Total Chromium						<0.1	<0.1			
Dissolved Chromium						<0.1	NA			
Total Lead	Metals were not sampled and analyzed					<0.015	<0.015	Metals were not sampled and analyzed		
Dissolved Lead						<0.015	NA			
Total Copper						<1.0	<1.0			
Dissolved Copper						<1.0	NA			
Total Nickel						<0.1	<0.1			
Dissolved Nickel						<0.1	NA			
Total Zinc						<2.0	<2.0			
Dissolved Zinc						<2.0	NA			

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
Sample Depth (well screen interval) (ft. bgs)	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'	49'-54'
Sample Depth (well screen interval) (ft. btoc)	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8	48.8-53.8
Passive Diffusion Bag Sample Depth (ft. btoc)										
Date Sampled	6/7/2011	1/18/2012	7/11/2012	1/10/2013	7/9/2013	1/8/2014	6/25/2014	1/13/2015	7/8/2015	12/16/2015
Laboratory	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent										
Volatile Organic Compounds - SW8260B - (µg/L)										
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	**2.5**	<4.0	<4.0	<2.0
1,1,1-Trichloroethane	**4**	**1.8**	<1.0	<8.0	**1.4**	**2.3**	**3**	<4.0	<4.0	<2.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	<2.0	<4.0	<4.0	<2.0
1,1-Dichloroethene	**15**	**12**	<1.0	<8.0	**9.8**	**19.1**	**24**	**7.4**	<4.0	<2.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<8.0	**1.5**	<2.0	<2.0	<4.0	<4.0	<2.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<8.0	**1.5**	<2.0	<2.0	<4.0	<4.0	<2.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	<1.0	<4.0	<4.0	<2.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	<1.0	<4.0	<4.0	<2.0
1,4-Dioxane	NA	<100	<100	<400	<50	<300	NA	NA	NA	<2.0
Chloroform	**1.8**	**1.8**	**2.1**	<8.0	**3.0**	**2.3**	**3.5**	<4.0	<4.0	**2.6**
cis-1,2-Dichloroethene	**4.5**	**3.6**	<1.0	<8.0	**3.7**	**8.1**	**9.6**	**5.1**	<4.0	**1.9J**
Ethylbenzene	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	<2.0	<4.0	<4.0	<2.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<8.0	**1.4**	<2.0	**2.9**	**6.0**	**5.3**	**4.8**
n-propylbenzene	NA	<1.0	<1.0	<8.0	<1.0	<2.0	<1.0	<4.0	<4.0	<2.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	<1.0	<4.0	<4.0	<2.0
Methylene chloride	<5.0	<1.0	<1.0	<8.0	<1.0	<4.0	<4.0	<8.0	**10.4 B**	<4.0
Naphthalene	<5.0	<5.0	<5.0	<8.0	**1.1**	<2.0	<2.0	<4.0	<4.0	<2.0
Tetrachloroethene	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	**2.2**	<4.0	<4.0	<2.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	<2.0	<4.0	<4.0	<2.0
Toluene	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	<2.0	<4.0	<4.0	<2.0
Trichloroethene	**160**	**230**	**220**	**240**	**370**	**397**	**482**	**654**	**354**	**237**
Vinyl Chloride	<1.0	<1.0	<1.0	<8.0	<1.0	<2.0	<2.0	<4.0	<4.0	<2.0
m&p-xylenes	<2.0	<1.0	<1.0	<16.0	<2.0	<4.0	<2.0	<8.0	<8.0	<4.0
o-xylene	<1.0	<1.0	<1.0	<8.0	<1.0	<1.0	<1.0	<4.0	<4.0	<2.0
Total Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	<2.0	<5.0	<5.0	<40	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)										
Total Silver	Metals were not sampled and analyzed									
Dissolved Silver										
Total Cadmium										
Dissolved Cadmium										
Total Chromium										
Dissolved Chromium										
Total Lead										
Dissolved Lead										
Total Copper										
Dissolved Copper										
Total Nickel										
Dissolved Nickel										
Total Zinc										
Dissolved Zinc										

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-7	MW-7	MW-7	MW-7
Sample Depth (well screen interval) (ft. bgs)	43'-48'	43'-48'	43'-48'	43'-48'	43'-48'	43'-48'	46'-56'	46'-56'	45.6'-55.6'	45.6'-55.6'
Sample Depth (well screen interval) (ft. btoc)	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	42.9'-47.9'	45.6'-55.6'	45.6'-55.6'	53.7'-55.2'	53.7'-55.2'
Passive Diffusion Bag Sample Depth (ft. btoc)				45.9'-47.4'	45.9'-47.4'			53.7'-55.2'		
Date Sampled	2/25/2000	10/3/2000	2/18/2003	4/8/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	2/25/2003	4/8/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Laboratory	STL Tampa	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	Test America - North Canton	Test America - North Canton	
Purge Method/Sample Method	Bailer/ Bailer	Bailer/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	
Constituent										
Volatile Organic Compounds - SW8260B - (µg/L)										
1,1,1,2-Tetrachloroethane	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1-Dichloroethane	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1-Dichloroethene	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,2,4-Trimethylbenzene	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0	
1,4-Dioxane	<500	<250	<200	<250	<50		<200	<250	<50	
Chloroform	<1.0	<5.0	<5.0	<5.0	**1.2**		<5.0	**6.0**	**4.1**	
cis-1,2-Dichloroethene	<1.0	<2.5	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0	
Ethylbenzene	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Hexachlorobutadiene	<1.0	<5.0	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP
n-propylbenzene	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0	
p-Isopropyltoluene	<1.0	<5.0	NA	<5.0	<1.0		NA	<5.0	<1.0	
Methylene chloride	<2.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Naphthalene	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Tetrachloroethene	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<1.0	<2.5	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0	
Toluene	<1.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Trichloroethene	**9.6**	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Vinyl Chloride	<1.0	<2.0	<5.0	<2.0	<1.0		<5.0	<2.0	<1.0	
m&p-xylenes	<1.0	<5.0	NA	<5.0	<2.0		NA	<5.0	<2.0	
o-xylene	<1.0	<2.5	NA	<5.0	<1.0		NA	<5.0	<1.0	
Total Xylenes	NA	NA	<5.0	NA	NA		<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA		NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)										
Total Silver	Metals were not sampled and analyzed						Metals were not sampled and analyzed			
Dissolved Silver										
Total Cadmium										
Dissolved Cadmium										
Total Chromium										
Dissolved Chromium										
Total Lead										
Dissolved Lead										
Total Copper										
Dissolved Copper										
Total Nickel										
Dissolved Nickel										
Total Zinc										
Dissolved Zinc										

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-8	MW-8A	MW-8B	MW-8	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9	MW-9
Sample Depth (well screen interval) (ft. bgs)	60'-70'	60'-70'	60'-70'	60'-70'	60'-70'	60'-70'	60'-70'	55'-65'	55'-65'	55'-65'	55'-65'
Sample Depth (well screen interval) (ft. btoc)		59.6-69.6	59.6-69.6	59.6-69.6	59.6-69.6	59.6-69.6	59.6-69.6	54.6'-64.6'	54.6'-64.6'	54.6'-64.6'	54.6'-64.6'
Passive Diffusion Bag Sample Depth (ft. btoc)		'60.6-62.1	65.6-67.1	'60.6-62.1	'60.6-62.1	'60.6-62.1			62.7'-64.2'	62.7'-64.2'	
Date Sampled	2/24/2003	5/7/2004	5/7/2004	10/12/2004	4/7/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	2/24/2003	4/7/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	Test America - North Canton	Test America - North Canton	
Purge Method/Sample Method	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)							NOT SAMPLED per VIRP				NOT SAMPLED per VIRP
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	NA	NA	NA	NA	<5.0	<1.0		NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,2,4-Trimethylbenzene	NA	NA	NA	NA	<5.0	<1.0		NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	NA	NA	NA	NA	<5.0	<1.0		NA	<5.0	<1.0	
1,4-Dioxane	<200	<250	<250	<250	<250	<50		<200	<250	<50	
Chloroform	<5.0	<5.0	<5.0	<5.0	<5.0	**1.0**		<5.0	<5.0	<1.0	
cis-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<2.5	<1.0		<2.5	<2.5	<1.0	
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Hexachlorobutadiene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
n-propylbenzene	NA	NA	NA	NA	<5.0	<1.0		NA	<5.0	<1.0	
p-Isopropyltoluene	NA	NA	NA	NA	<5.0	<1.0		NA	<5.0	<1.0	
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Naphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<2.5	<1.0		<2.5	<2.5	<1.0	
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Vinyl Chloride	<5.0	<2.0	<2.0	<2.0	<2.0	<1.0		<5.0	<2.0	<1.0	
m&p-xylenes	NA	NA	NA	NA	<5.0	<2.0		NA	<5.0	<2.0	
o-xylene	NA	NA	NA	NA	<5.0	<1.0		NA	<5.0	<1.0	
Total Xylenes	<5.0	<5.0	<5.0	<5.0	NA	NA		<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA		NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)											
Total Silver	Metals were not sampled and analyzed							Metals were not sampled and analyzed			
Dissolved Silver											
Total Cadmium											
Dissolved Cadmium											
Total Chromium											
Dissolved Chromium											
Total Lead											
Dissolved Lead											
Total Copper											
Dissolved Copper											
Total Nickel											
Dissolved Nickel											
Total Zinc											
Dissolved Zinc											

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-10	MW-10A	MW-10B	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10
Sample Depth (well screen interval) (ft. bgs)	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'	35'-45'
Sample Depth (well screen interval) (ft. btoc)	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4	37.4-47.4
Passive Diffusion Bag Sample Depth (ft. btoc)		38.6-40.1	43.6-45.1	38.6-40.1	38.6-40.1	38.6-40.1											
Date Sampled	2/25/2003	5/6/2004	5/6/2004	10/12-13/2004	4/8/2008	6/2/2010	6/3/2010	6/9/2011	1/17/2012	7/10/2012	1/10/2013	7/10/2013	1/7/2014	6/26/2014	1/13/2015	7/9/2015	12/15/2015
Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method	PumpLFLS/ Bailer	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																	
Volatile Organic Compounds - SW8260B - (µg/L)																	
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	<200	<250	<250	<250	<250	<50	<50	NA	<100	<100	<50	<50	<150	<150	<150	<150	<150
Chloroform	<5.0	<5.0	<5.0	<5.0	**6.4**	**1.8**	**1.9**	**2.5**	**1.8**	**1.5**	**1.1**	**1.5**	**1.2**	**1.5**	**1.5**	**1.4**	**1.3**
cis-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene	NA	NA	NA	NA	<5.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Naphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<5.0	**8.5**	**5.8**	**6.1**	<5.0	**3.4**	**2.8**	**2.6**	**2.9**	**2.6**	**2.5**	**1.4**	**1.2**	<1.0	**1.9**	**1.6**	**1.7**
Vinyl Chloride	<5.0	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m&p-xylenes	NA	NA	NA	NA	<5.0	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-xylene	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																	
Total Silver	Metals were not sampled and analyzed	<0.1	<0.1	Metals were not sampled or analyzed													
Dissolved Silver		<0.1	NA														
Total Cadmium		<0.005	<0.005														
Dissolved Cadmium		<0.005	NA														
Total Chromium		<0.1	<0.1														
Dissolved Chromium		<0.1	NA														
Total Lead		<0.015	<0.015														
Dissolved Lead		<0.015	NA														
Total Copper		<1.0	<1.0														
Dissolved Copper		<1.0	NA														
Total Nickel		<0.1	<0.1														
Dissolved Nickel		<0.1	NA														
Total Zinc		<2.0	<2.0														
Dissolved Zinc		<2.0	NA														

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-11	MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13
Sample Depth (well screen interval) (ft. bgs)	66'-76'	66'-76'	66'-76'	66'-76'	60.5'-70.5'	60.5'-70.5'	60.5'-70.5'	60.5'-70.5'	12'-22'	12'-22'	12'-22'	12'-22'
Sample Depth (well screen interval) (ft. btoc)	68.5'-78.5'	68.5'-78.5'	68.5'-78.5'	68.5'-78.5'	62.9'-72.9'	62.9'-72.9'	62.9'-72.9'	62.9'-72.9'	14.5'-24.5'	14.5'-24.5'	14.5'-24.5'	14.5'-24.5'
Passive Diffusion Bag Sample Depth (ft. btoc)		76.6'-78.1'	76.6'-78.1'			71.0'-72.5'	71.0'-72.5'			22.6'-24.1'	22.6'-24.1'	
Date Sampled	2/25/2003	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	2/25/2003	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	2/26/2003	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Laboratory	STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	Test America - North Canton	Test America - North Canton		STL North Canton	Test America - North Canton	Test America - North Canton	
Purge Method/Sample Method	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)				NOT SAMPLED per VIRP				NOT SAMPLED per VIRP				NOT SAMPLED per VIRP
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1-Dichloroethane	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1-Dichloroethene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,2,4-Trimethylbenzene	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0	
1,4-Dioxane	<200	<250	<50		<200	<250	<50		<200	<250	<50	
Chloroform	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
cis-1,2-Dichloroethene	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<2.5	<1.0	
Ethylbenzene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Hexachlorobutadiene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
n-propylbenzene	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0	
p-Isopropyltoluene	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0	
Methylene chloride	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Naphthalene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Tetrachloroethene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0		<2.5	<2.5	<1.0	
Toluene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Trichloroethene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Vinyl Chloride	<5.0	<2.0	<1.0		<5.0	<2.0	<1.0		<5.0	<2.0	<1.0	
m&p-xylenes	NA	<5.0	<2.0		NA	<5.0	<2.0		NA	<5.0	<2.0	
o-xylene	NA	<5.0	<1.0		NA	<5.0	<1.0		NA	<5.0	<1.0	
Total Xylenes	<5.0	NA	NA		<5.0	NA	NA		<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA		NA	NA	NA		NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)												
Total Silver	Metals were not sampled and analyzed				Metals were not sampled and analyzed				Metals were not sampled and analyzed			
Dissolved Silver												
Total Cadmium												
Dissolved Cadmium												
Total Chromium												
Dissolved Chromium												
Total Lead												
Dissolved Lead												
Total Copper												
Dissolved Copper												
Total Nickel												
Dissolved Nickel												
Total Zinc												
Dissolved Zinc												

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-14	MW-14PRE	MW-14POST	MW-14LONG	MW-14PRE	MW-14POST	MW-14LONG	MW-14(7:10)	MW-14(9:30)	MW-14(12:15)	MW-14A	MW-14B	MW-14C
Sample Depth (well screen interval) (ft. bgs)	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'
Sample Depth (well screen interval) (ft. btoc)	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4
Passive Diffusion Bag Sample Depth (ft. btoc)											74.5-76	79.5-81	84.5-86
Date Sampled	4/3/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	4/21/2003	6/13/2003	6/13/2003	6/13/2003	5/5/2004	5/5/2004	5/5/2004
Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	ASI	ASI	ASI	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton
Purge Method/Sample Method	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB
Constituent													
Volatile Organic Compounds - SW8260B - (µg/L)													
1,1,1,2-Tetrachloroethane	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
1,1,1-Trichloroethane	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
1,1-Dichloroethane	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
1,1-Dichloroethene	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	<5000	<250	<1000	<1000	<1300	<5000	<5000	<10000	<10000	<10000	<10000	<12000	<10000
Chloroform	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
cis-1,2-Dichloroethene	**230**	**180**	**350**	**440**	**190**	**410**	**510**	**470**	**530**	**520**	**500**	**450**	**450**
Ethylbenzene	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
Hexachlorobutadiene	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
Naphthalene	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
Tetrachloroethene	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
trans-1,2-Dichloroethene	<50	<3.1	<12	<12	<12	<100	<100	<120	<120	<120	<200	<250	<200
Toluene	<100	<6.2	<25	<25	**29**	<100	<100	<250	<250	<250	<200	<250	<200
Trichloroethene	**3000**	**2200**	**6300**	**8200**	**2400**	**8200**	**8800**	**7000**	**7700**	**7300**	**6800**	**6600**	**6100**
Vinyl Chloride	<40	<6.2	<25	<25	<10	<40	<40	<250	<250	<250	<200	<250	<200
m&p-xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-xylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	<100	<6.2	<25	<25	<25	<100	<100	<250	<250	<250	<200	<250	<200
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)													
Total Silver	Metals were not sampled and analyzed.												
Dissolved Silver													
Total Cadmium													
Dissolved Cadmium													
Total Chromium													
Dissolved Chromium													
Total Lead													
Dissolved Lead													
Total Copper													
Dissolved Copper													
Total Nickel													
Dissolved Nickel													
Total Zinc													
Dissolved Zinc													

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-14	MW-14	MW-14	Re-analysis MW-14	MW-14	Re-analysis MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
Sample Depth (well screen interval) (ft. bgs)	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'	71.2'-86.2'
Sample Depth (well screen interval) (ft. btoc)	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4	73.4-88.4
Passive Diffusion Bag Sample Depth (ft. btoc)	74.5-76	74.5-76	74.5-76	74.5-76												
Date Sampled	10/12/2004	4/7/2008	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/8/2011	1/19/2012	7/11/2012	1/9/2013	7/10/2013	1/8/2014	6/26/2014	1/14/2015	7/8/2015	12/16/2015
Laboratory	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																
Volatile Organic Compounds - SW8260B - (µg/L)																
1,1,1,2-Tetrachloroethane	<310	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
1,1,1-Trichloroethane	<310	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
1,1-Dichloroethane	<310	<330	<120	<25	<140	<29	<10	**4.5**	**3.3**	<100	<10	**2.3**	**2.6**	<20	<20	<20
1,1-Dichloroethene	<310	<330	<120	**57**	<140	**58**	**56**	**110**	**90**	<100	**57**	**52.4**	**64.6**	**46.8**	**44.4**	**45.4**
1,2,3-Trichlorobenzene	NA	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
1,2,4-Trichlorobenzene	<310	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
1,2,4-Trimethylbenzene	NA	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	**2.7**	<20	<20	<20
1,3,5-Trimethylbenzene	NA	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
1,4-Dioxane	<16000	<17000	<6200	<1200	<7100	<1400	NA	<100	<100	<5000	<500	<150	NA	NA	NA	<20
Chloroform	<310	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
cis-1,2-Dichloroethene	<310	**410**	**370**	**320**	**380**	**330**	**280**	**390**	**340**	**310**	**350**	**254**	**258**	**189**	**222**	**249**
Ethylbenzene	<310	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
Hexachlorobutadiene	<310	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
n-propylbenzene	NA	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
p-Isopropyltoluene	NA	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
Methylene chloride	<310	<330	<120	<25	<140	<29	<50	<1.0	<1.0	<100	<10	<2.0	<2.0	<40	**44.6 B**	<40
Naphthalene	<310	<330	<120	<25	<140	<29	<50	<5.0	<5.0	<100	<10	<1.0	**5.6**	<20	<20	<20
Tetrachloroethene	<310	<330	<120	<25	<140	<29	<10	**2.8**	**2.4**	<100	<10	**1.6**	**1.8**	<20	<20	<20
trans-1,2-Dichloroethene	<310	<170	<120	<25	<140	<29	<10	**1.1**	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
Toluene	<310	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
Trichloroethene	**1900**	**4800**	**3500**	**3000 E**	**3600**	**3200 E**	**3200**	**4000**	**3700**	**3400**	**2900**	**1990**	**1450**	**2060**	**1730**	**1940**
Vinyl Chloride	<120	<130	<120	<25	<140	<29	<10	**1.9**	**2.3**	<100	<10	**1.1**	**1.6**	<20	<20	<20
m&p-xylenes	NA	<330	<250	<50	<290	<57	<20	<1.0	<1.0	<200	<20	<2.0	<2.0	<40	<40	<40
o-xylene	NA	<330	<120	<25	<140	<29	<10	<1.0	<1.0	<100	<10	<1.0	<1.0	<20	<20	<20
Total Xylenes	<310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	<25	NA	NA	<29	<20	<5.0	<5.0	<20	<2.0	<2.0	<2.0	<2.0	<8.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)																
Total Silver	Metals were not sampled and analyzed.															
Dissolved Silver																
Total Cadmium																
Dissolved Cadmium																
Total Chromium																
Dissolved Chromium																
Total Lead																
Dissolved Lead																
Total Copper																
Dissolved Copper																
Total Nickel																
Dissolved Nickel																
Total Zinc																
Dissolved Zinc																

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-15	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-16
Sample Depth (well screen interval) (ft. bgs)	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'	6.7'-11.7'
Sample Depth (well screen interval) (ft. btoc)	9.3'-14.3'	9.3'-14.3'	9.3'-14.3'	9.3'-14.3'	9.2'-14.2'	9.2'-14.2'	9.2'-14.2'	9.2'-14.2'
Passive Diffusion Bag Sample Depth (ft. btoc)		12.3'-13.8'	12.3'-13.8'			12.2'-13.7'	12.2'-13.7'	
Date Sampled	4/3/2003	4/7/2008	6/2/2010	June 2011	4/4/2003	4/7/2008	6/2/2010	June 2011
Laboratory	STL North Canton	Test America - North Canton	Test America - North Canton	January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	STL North Canton	Test America - North Canton	Test America - North Canton	January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Purge Method/Sample Method	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	
Constituent								
Volatile Organic Compounds - SW8260B - (µg/L)								
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1-Dichloroethane	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,1-Dichloroethene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	NA	<5.0	<1.0		NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
1,2,4-Trimethylbenzene	NA	<5.0	<1.0		NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	NA	<5.0	<1.0		NA	<5.0	<1.0	
1,4-Dioxane	<250	<250	<50		<250	<250	<50	
Chloroform	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
cis-1,2-Dichloroethene	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0	
Ethylbenzene	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP
Hexachlorobutadiene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
n-propylbenzene	NA	<5.0	<1.0		NA	<5.0	<1.0	
p-Isopropyltoluene	NA	<5.0	<1.0		NA	<5.0	<1.0	
Methylene chloride	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Naphthalene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Tetrachloroethene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<2.5	<2.5	<1.0		<2.5	<2.5	<1.0	
Toluene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Trichloroethene	<5.0	<5.0	<1.0		<5.0	<5.0	<1.0	
Vinyl Chloride	<2.0	<2.0	<1.0		<2.0	<2.0	<1.0	
m&p-xylenes	NA	<5.0	<2.0		NA	<5.0	<2.0	
o-xylene	NA	<5.0	<1.0		NA	<5.0	<1.0	
Total Xylenes	<5.0	NA	NA		<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA		NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)								
Total Silver	Metals were not sampled and analyzed				Metals were not sampled and analyzed			
Dissolved Silver								
Total Cadmium								
Dissolved Cadmium								
Total Chromium								
Dissolved Chromium								
Total Lead								
Dissolved Lead								
Total Copper								
Dissolved Copper								
Total Nickel								
Dissolved Nickel								
Total Zinc								
Dissolved Zinc								

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-17	MW-17A	MW-17B	MW-17C	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18A	MW-18B	MW-18C	MW-18	MW-18	MW-18	MW-18
Sample Depth (well screen interval) (ft. bgs)	33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	33'-47.5'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'	27'-42'
Sample Depth (well screen interval) (ft. btoc)	35.5-50	35.5-50	35.5-50	35.5-50	35.5-50	35.5-50	35.5-50	35.5-50	29.7'-44.7'	29.7'-44.7'	29.7'-44.7'	29.7'-44.7'	29.6-44.6	29.6-44.6	29.7'-44.7'	29.7'-44.7'
Passive Diffusion Bag Sample Depth (ft. btoc)		36.4-37.9	41.4-42.9	46.4-47.9	36.4-37.9	36.4-37.9	36.4-37.9			31.1-32.6	36.1-37.6	41.1-42.6	31.1-32.6	31.1-32.6	31.1-32.6	
Date Sampled	5/14/2003	5/4/2004	5/4/2004	5/4/2004	10/12/2004	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	5/14/2003	5/4/2004	5/4/2004	5/4/2004	10/12/2004	4/7/2008	6/2/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton		STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	
Purge Method/Sample Method	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB		PumpLFLS/Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	
Constituent																
Volatile Organic Compounds - SW8260B - (µg/L)																
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	
1,4-Dioxane	<200	<250	<250	<250	<250	<5.0	<50		<200	<250	<250	<250	<250	<250	<50	
Chloroform	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
cis-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0	
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Hexachlorobutadiene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	NOT SAMPLED per VIRP
n-propylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	
p-Isopropyltoluene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Naphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0	
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Vinyl Chloride	<5.0	<2.0	<2.0	<2.0	<2.0	<5.0	<1.0		<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	
m&p-xylenes	NA	NA	NA	NA	NA	<5.0	<2.0		NA	NA	NA	NA	NA	<5.0	<2.0	
o-xylene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	NA	NA	NA	<5.0	<1.0	
Total Xylenes	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA		<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)																
Total Silver	Metals were not sampled and analyzed								Metals were not sampled and analyzed							
Dissolved Silver																
Total Cadmium																
Dissolved Cadmium																
Total Chromium																
Dissolved Chromium																
Total Lead																
Dissolved Lead																
Total Copper																
Dissolved Copper																
Total Nickel																
Dissolved Nickel																
Total Zinc																
Dissolved Zinc																

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-19	MW-19	MW-19A	MW-19B	MW-19	MW-19	MW-19	Re-analyzed MW-19	MW-19
Sample Depth (well screen interval) (ft. bgs)	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'
Sample Depth (well screen interval) (ft. btoc)	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7
Passive Diffusion Bag Sample Depth (ft. btoc)			39.9-41.4	44.9-46.4	39.9-41.4	39.9-41.4	39.9-41.4	39.9-41.4	
Date Sampled	5/28/2003	6/13/2003	5/5/2004	5/5/2004	10/12/2004	4/7/2008	6/2/2010	6/2/2010	6/3/2010
Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton
Purge Method/Sample Method	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	PumpLFLS/ Bailer/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1,2-Tetrachloroethane	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
1,1,1-Trichloroethane	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
1,1-Dichloroethane	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
1,1-Dichloroethene	<250	<500	<1200	<1200	<1700	<100	**82**	**100**	<200
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	<100	<56	<56	<200
1,2,4-Trichlorobenzene	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	<100	<56	<56	<200
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	<100	<56	<56	<200
1,4-Dioxane	<10000	<20000	<62000	<62000	<83000	<5000	<2800	<2800	<10000
Chloroform	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
cis-1,2-Dichloroethene	<120	<250	<1200	<1200	<1700	<50	<56	<56	<200
Ethylbenzene	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
Hexachlorobutadiene	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
n-propylbenzene	NA	NA	NA	NA	NA	<100	<56	<56	<200
p-Isopropyltoluene	NA	NA	NA	NA	NA	<100	<56	<56	<200
Methylene chloride	380 B	<500	<1200	<1200	<1700	<100	<56	<56	<200
Naphthalene	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
Tetrachloroethene	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
trans-1,2-Dichloroethene	<120	<250	<1200	<1200	<1700	<50	<56	<56	<200
Toluene	<250	<500	<1200	<1200	<1700	<100	<56	<56	<200
Trichloroethene	**8000**	**12000**	**20000**	**19000**	**14000**	**1500**	**1700**	**1700**	**5800**
Vinyl Chloride	<250	<500	<1200	<1200	<670	<40	<56	<56	<200
m&p-xylenes	NA	NA	NA	NA	NA	<100	<110	<110	<400
o-xylene	NA	NA	NA	NA	NA	<100	<56	<56	<200
Total Xylenes	<250	<500	<1200	<1200	<1700	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	<11	NA	NA
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver	Metals were not sampled and analyzed		<0.1		<0.1	Metals were not sampled and analyzed			
Dissolved Silver			NA		NA				
Total Cadmium			<0.005		<0.005				
Dissolved Cadmium			NA		NA				
Total Chromium			<0.1		<0.1				
Dissolved Chromium			NA		NA				
Total Lead			<0.015		<0.015				
Dissolved Lead			NA		NA				
Total Copper			<1.0		<1.0				
Dissolved Copper			NA		NA				
Total Nickel			<0.1		<0.1				
Dissolved Nickel			NA		NA				
Total Zinc			<2.0		<2.0				
Dissolved Zinc			NA		NA				

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	Re-analyzed MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
Sample Depth (well screen interval) (ft. bgs)	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'	36.2'-46.2'
Sample Depth (well screen interval) (ft. btoc)	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7	38.7-48.7
Passive Diffusion Bag Sample Depth (ft. btoc)											
Date Sampled	6/3/2010	6/8/2011	1/18/2012	7/11/2012	1/9/2013	7/10/2013	1/8/2014	6/26/2014	1/14/2015	7/8/2015	12/16/2015
Laboratory	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)											
1,1,1,2-Tetrachloroethane	<40	<10	**10**	**12**	<200	<14	**9.2**	**7.1**	<40	<25	<20
1,1,1-Trichloroethane	<40	<10	**7.4**	**6.4**	<200	<14	**7**	**7.3**	<40	<25	<20
1,1-Dichloroethane	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20
1,1-Dichloroethene	**72**	**18**	**45**	**37**	<200	**33**	**48.2**	**52.7**	**43.6**	**32.3**	<20
1,2,3-Trichlorobenzene	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20
1,2,4-Trichlorobenzene	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20
1,2,4-Trimethylbenzene	<40	<10	<1.0	<1.0	<200	<14	<1.0	**2.7**	<40	<25	<20
1,3,5-Trimethylbenzene	<40	<10	<1.0	<1.0	<200	<14	<1.0	**2**	<40	<25	<20
1,4-Dioxane	<2000	NA	<100	<100	<10000	<710	<150	NA	NA	NA	<20
Chloroform	<40	<10	**1.9**	**2.2**	<200	<14	**2.7**	**4.1**	<40	<25	<20
cis-1,2-Dichloroethene	<40	<10	**12**	**13**	<200	**18**	**23.2**	**29**	<40	<25	<20
Ethylbenzene	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20
Hexachlorobutadiene	<40	<10	<1.0	<1.0	<200	<14	**2.1**	**1.8**	<40	<25	<20
n-propylbenzene	<40	NA	<1.0	<1.0	<200	<14	<1.0	**2.2**	<40	<25	<20
p-Isopropyltoluene	<40	<10	<1.0	<1.0	<200	<14	<1.0	**2.3**	<40	<25	<20
Methylene chloride	<40	<50	<5.0	<5.0	<200	<14	<2.0	<2.0	<80	**53.3 B**	<40
Naphthalene	<40	<50	<5.0	<5.0	<200	<14	<1.0	<1.0	<40	<25	<20
Tetrachloroethene	<40	<10	**2.3**	**2.3**	<200	<14	**2.1**	**1.7**	<40	<25	<20
trans-1,2-Dichloroethene	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20
Toluene	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20
Trichloroethene	**5800 E**	**4000**	**5900**	**5100**	**6400**	**5000**	**3360**	**2340**	**3280**	**1760**	**1720**
Vinyl Chloride	<40	<10	<1.0	<1.0	<200	<14	<1.0	<1.0	<40	<25	<20
m&p-xylenes	<180	<20	<1.0	<1.0	<400	<29	<2.0	**3.5**	<80	<50	<40
o-xylene	<40	<10	<1.0	<1.0	<200	<14	<1.0	**2.7**	<40	<25	<20
Total Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	<40	<20	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0
Site-Specific Metals - SW6010B - (mg/L)											
Total Silver	Metals were not sampled and analyzed										
Dissolved Silver											
Total Cadmium											
Dissolved Cadmium											
Total Chromium											
Dissolved Chromium											
Total Lead											
Dissolved Lead											
Total Copper											
Dissolved Copper											
Total Nickel											
Dissolved Nickel											
Total Zinc											
Dissolved Zinc											

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-20	MW-20(12:10)	MW-20(15:00)	MW-20(17:30)	MW-20A	MW-20B	MW-20C	MW-20	MW-20
Sample Depth (well screen interval) (ft. bgs)	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'
Sample Depth (well screen interval) (ft. btoc)	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5
Passive Diffusion Bag Sample Depth (ft. btoc)					92.6-94.1	97.6-99.1	102.6-104.1		92.6-94.1
Date Sampled	5/28/2003	6/12/2003	6/12/2003	6/12/2003	5/6/2004	5/6/2004	5/6/2004	10/28/2004	4/8/2008
Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton
Purge Method/Sample Method	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	PumpLFLS/Bailer	no purge/ PDB
Constituent									
Volatile Organic Compounds - SW8260B - (µg/L)									
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
1,1-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	<10.0
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	<10.0
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	<10.0
1,4-Dioxane	<200	<200	<200	<200	<360	<360	<250	<500	<500
Chloroform	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
cis-1,2-Dichloroethene	**14**	**12**	**15**	**20**	**40**	**40**	**33**	**52**	**120**
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
Hexachlorobutadiene	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	<10.0
p-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	<10.0
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
Naphthalene	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
trans-1,2-Dichloroethene	<2.5	<2.5	<2.5	<2.5	<7.2	<7.2	<5.0	<10.0	<5.0
Toluene	<5.0	**5.7**	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
Vinyl Chloride	<5.0	<5.0	<5.0	<5.0	<2.9	<2.9	<2.0	<4.0	<4.0
m&p-xylenes	NA	NA	NA	NA	NA	NA	NA	NA	<10.0
o-xylene	NA	NA	NA	NA	NA	NA	NA	NA	<10.0
Total Xylenes	<5.0	<5.0	<5.0	<5.0	<7.2	<7.2	<5.0	<10.0	<10.0
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)									
Total Silver	Metals were not sampled and analyzed								
Dissolved Silver									
Total Cadmium									
Dissolved Cadmium									
Total Chromium									
Dissolved Chromium									
Total Lead									
Dissolved Lead									
Total Copper									
Dissolved Copper									
Total Nickel									
Dissolved Nickel									
Total Zinc									
Dissolved Zinc									

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20
Sample Depth (well screen interval) (ft. bgs)	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'	91.7'-106.7'
Sample Depth (well screen interval) (ft. btoc)	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5	91.5-106.5
Passive Diffusion Bag Sample Depth (ft. btoc)	92.6-94.1											
Date Sampled	6/1/2010	6/2/2010	6/9/2011	1/18/2012	7/11/2012	1/10/2013	7/9/2013	1/9/2014	6/25/2014	1/13/2015	7/8/2015	12/15/2015
Laboratory	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent												
Volatile Organic Compounds - SW8260B - (µg/L)												
1,1,1,2-Tetrachloroethane	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,1,1-Trichloroethane	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,1-Dichloroethane	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,1-Dichloroethene	<5.0	<5.7	**2.0**	**6.3**	**3.6**	<9.1	**4.8**	**5.8**	<1.0	**3.9**	**8.9**	**6.4**
1,2,3-Trichlorobenzene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,2,4-Trichlorobenzene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,2,4-Trimethylbenzene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,3,5-Trimethylbenzene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
1,4-Dioxane	<250	<290	NA	<100	<100	<450	<63	<150	NA	NA	NA	<2.0
Chloroform	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
cis-1,2-Dichloroethene	**150**	**170**	**210**	**310**	**270**	**320**	**360**	**316**	**10.7**	**316**	**407**	**414**
Ethylbenzene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Hexachlorobutadiene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
n-propylbenzene	<5.0	<5.7	NA	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
p-Isopropyltoluene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Methylene chloride	<5.0	<5.7	<5.0	<1.0	<1.0	<9.1	<1.3	<2.0	<2.0	<5.0	<2.0	<8.0
Naphthalene	<5.0	<5.7	<5.0	<5.0	<5.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Tetrachloroethene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
trans-1,2-Dichloroethene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Toluene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Trichloroethene	<5.0	<5.7	**2.0**	<1.0	<1.0	<9.1	<1.3	<1.0	**1**	<2.5	<1.0	<4.0
Vinyl Chloride	**15**	<5.7	<1.0	**2.0**	**1.8**	<9.1	**1.6**	**2.1**	**1.4**	<2.5	**4.7**	**5.0**
m&p-xylenes	<10.0	<11.0	<2.0	<1.0	<1.0	<18	<2.5	<2.0	<2.0	<5.0	<2.0	<8.0
o-xylene	<5.0	<5.7	<1.0	<1.0	<1.0	<9.1	<1.3	<1.0	<1.0	<2.5	<1.0	<4.0
Total Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	<2.0	<2.0	<20	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<12.0	<2.0
Site-Specific Metals - SW6010B - (mg/L)												
Total Silver												
Dissolved Silver												
Total Cadmium												
Dissolved Cadmium												
Total Chromium												
Dissolved Chromium												
Total Lead	Metals were not sampled and analyzed											
Dissolved Lead												
Total Copper												
Dissolved Copper												
Total Nickel												
Dissolved Nickel												
Total Zinc												
Dissolved Zinc												

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-21	MW-21A	MW-21B	MW-21C	MW-21	MW-21	MW-21	MW-21
Sample Depth (well screen interval) (ft. bgs)	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'	89.7'-104.7'
Sample Depth (well screen interval) (ft. btoc)	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4	89.4-104.4
Passive Diffusion Bag Sample Depth (ft. btoc)		90.7-92.2	95.7-97.2	100.7-102.2	90.7-92.2	90.7-92.2	90.7-92.2	
Date Sampled	9/10/2003	5/7/2004	5/7/2004	5/7/2004	10/12/2004	4/8/2008	6/1/2010	June 2011
Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Purge Method/Sample Method	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	
Constituent								
Volatile Organic Compounds - SW8260B - (µg/L)								NOT SAMPLED per VIRP
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0	
1,4-Dioxane	<200	<250	<250	<250	<250	<250	<50	
Chloroform	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
cis-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0	
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Hexachlorobutadiene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
n-propylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0	
p-Isopropyltoluene	NA	NA	NA	NA	NA	<5.0	<1.0	
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Naphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0	
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	
Vinyl Chloride	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	
m&p-xylenes	NA	NA	NA	NA	NA	<5.0	<2.0	
o-xylene	NA	NA	NA	NA	NA	<5.0	<1.0	
Total Xylenes	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)	Metals were not sampled and analyzed							
Total Silver								
Dissolved Silver								
Total Cadmium								
Dissolved Cadmium								
Total Chromium								
Dissolved Chromium								
Total Lead								
Dissolved Lead								
Total Copper								
Dissolved Copper								
Total Nickel								
Dissolved Nickel								
Total Zinc								
Dissolved Zinc								

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-22	MW-22A	MW-22B	MW-22C	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22
Sample Depth (well screen interval) (ft. bgs)	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'	98.9'-113.9'
Sample Depth (well screen interval) (ft. btoc)	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7	98.7-113.7
Passive Diffusion Bag Sample Depth (ft. btoc)		100-101.5	105-106.5	110-111.5	100-101.5	100-101.5	100-101.5											
Date Sampled	9/10/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004	4/7/2008	6/1/2010	6/8/2011	1/17/2012	7/10/2012	1/10/2013	7/9/2013	1/9/2014	6/25/2014	1/13/2015	7/9/2015	9/30/2015	12/15/2015
Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent																		
Volatile Organic Compounds - SW8260B - (µg/L)																		
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	<200	<250	<250	<250	<250	<250	<50	NA	<100	<100	NA	NA	NA	<150	<150	<150	<150	<150
Chloroform	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0
Naphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	**2.8 B**	<1.0	<1.0
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.2**	<1.0	<1.0
Vinyl Chloride	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m&p-xylenes	NA	NA	NA	NA	NA	<5.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-xylene	NA	NA	NA	NA	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Site-Specific Metals - SW6010B - (mg/L)																		
Total Silver	Metals were not sampled and analyzed																	
Dissolved Silver																		
Total Cadmium																		
Dissolved Cadmium																		
Total Chromium																		
Dissolved Chromium																		
Total Lead																		
Dissolved Lead																		
Total Copper																		
Dissolved Copper																		
Total Nickel																		
Dissolved Nickel																		
Total Zinc																		
Dissolved Zinc																		

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-23	MW-23A	MW-23B	MW-23C	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-24	MW-24	MW-24
Sample Depth (well screen interval) (ft. bgs)	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	91'-106'	136.9'-146.7'	136.9'-146.7'	136.9'-146.7'	136.9'-146.7'	136.9'-146.7'
Sample Depth (well screen interval) (ft. btoc)	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	90.8'-105.8'	136.7'-146.5'	136.7'-146.5'	136.7'-146.5' 143.3'-144.8'	136.7'-146.5' 143.3'-144.8'	136.7'-146.5'
Passive Diffusion Bag Sample Depth (ft. btoc)		92.1-93.6	97.1-98.6	102.1-103.5	92.1-93.6	92.1-93.6	92.1-93.6						
Date Sampled	9/11/2003	5/5/2004	5/5/2004	5/5/2004	10/12/2004	4/7/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015	10/12/2004	10/28/2004	4/7/2008	6/1/2010	June 2011 January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Laboratory	STL North Canton	STL North Canton	STL North Canton	STL North Canton	STL North Canton	Test America - North Canton	Test America - North Canton		STL Savannah	STL North Canton	Test America - North Canton	Test America - North Canton	
Purge Method/Sample Method	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB	no purge/ PDB		PumpLFLS/ Bailer	PumpLFLS/ Bailer	no purge/ PDB	no purge/ PDB	
Constituent													
Volatile Organic Compounds - SW8260B - (µg/L)								NOT SAMPLED per VIRP					NOT SAMPLED per VIRP
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
1,1-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0	
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<5.0	
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0	
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0	
1,4-Dioxane	<200	<250	<250	<250	<250	<250	<50		NA	<250	<250	<50	
Chloroform	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
cis-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0		<1.0	<5.0	<2.5	<1.0	
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
Hexachlorobutadiene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
n-propylbenzene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0	
p-Isopropyltoluene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0	
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<5.0	<5.0	<5.0	<1.0	
Naphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
trans-1,2-Dichloroethene	<2.5	<5.0	<5.0	<5.0	<5.0	<2.5	<1.0		<1.0	<5.0	<2.5	<1.0	
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0		<1.0	<5.0	<5.0	<1.0	
Vinyl Chloride	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0		<1.0	<2.0	<2.0	<1.0	
m&p-xylenes	NA	NA	NA	NA	NA	<5.0	<2.0		NA	NA	<5.0	<2.0	
o-xylene	NA	NA	NA	NA	NA	<5.0	<1.0		NA	NA	<5.0	<1.0	
Total Xylenes	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA		<1.0	<5.0	NA	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Site-Specific Metals - SW6010B - (mg/L)													
Total Silver	Metals were not sampled and analyzed								Metals were not sampled and analyzed				
Dissolved Silver													
Total Cadmium													
Dissolved Cadmium													
Total Chromium													
Dissolved Chromium													
Total Lead													
Dissolved Lead													
Total Copper													
Dissolved Copper													
Total Nickel													
Dissolved Nickel													
Total Zinc													
Dissolved Zinc													

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25	MW-26	MW-26	MW-26
Sample Depth (well screen interval) (ft. bgs)	91.8-106.8'	91.8-106.8'	91.8-106.8'	91.8-106.8'	91.8-106.8'	91.8-106.8'	91.8-106.8'	91.8-106.8'	91.8-106.8'	91.8-106.8'	91.8-106.8'	1.0-6.0'	1.0-6.0'	1.0-6.0'
Sample Depth (well screen interval) (ft. btoc)	91.5-106.5'	91.5-106.5'	91.5-106.5'	91.5-106.5'	91.5-106.5'	91.5-106.5'	91.5-106.5'	91.5-106.5'	91.5-106.5'	91.5-106.5'	91.5-106.5'	4.9-9.9'	4.9-9.9'	4.9-9.9'
Passive Diffusion Bag Sample Depth (ft. btoc)														
Date Sampled	6/24/2010	6/9/2011	1/18/2012	7/11/2012	1/9/2013	7/9/2013	1/8/2014	6/26/2014	1/14/2015	7/9/2015	12/16/2015	10/20/2010	6/9/2011	
Laboratory	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	AES-Atlanta	Test America - Tampa	January & July 2012, January & July 2013, January & June 2014, January,July& December 2015
Purge Method/Sample Method	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	
Constituent														
Volatile Organic Compounds - SW8260B - (µg/L)														
1,1,1,2-Tetrachloroethane	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	
1,1,1-Trichloroethane	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	
1,1-Dichloroethane	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	
1,1-Dichloroethene	<83	**20**	**34**	**28**	<130	**27**	**20.9**	**26.1**	<40	**22.8**	**27**	<5.0	<1.0	
1,2,3-Trichlorobenzene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0	
1,2,4-Trichlorobenzene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	
1,2,4-Trimethylbenzene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0	
1,3,5-Trimethylbenzene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0	
1,4-Dioxane	<4200	NA	<100	<100	<6300	<630	<1500	NA	NA	NA	<25	<150	NA	
Chloroform	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	
cis-1,2-Dichloroethene	**820**	**880**	**1000**	**860**	**860**	**840**	**772**	**731**	**732**	**748**	**798**	<5.0	<1.0	
Ethylbenzene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	
Hexachlorobutadiene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0	NOT SAMPLED per VIRP
n-propylbenzene	<83	NA	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	NA	
p-Isopropyltoluene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0	
Methylene chloride	<83	<100	<1.0	<1.0	<130	<13	<20	<2.0	<80	<20	<50	<5.0	<5.0	
Naphthalene	<83	<100	<5.0	<5.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<5.0	
Tetrachloroethene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	
trans-1,2-Dichloroethene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	
Toluene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	<5.0	<1.0	
Trichloroethene	**2800**	**3600**	**4700**	**3900**	**4300**	**4500**	**3250**	**1830**	**3280**	**2290**	**3670**	<5.0	<1.0	
Vinyl Chloride	<83	<20	**36**	**44**	<130	**21**	**21.9**	**46.3**	<40	**23.6**	<25	<2.0	<1.0	
m&p-xylenes	<170	<40	<1.0	<1.0	<250	<25	<20	<2.0	<80	<20	<50	NA	<2.0	
o-xylene	<83	<20	<1.0	<1.0	<130	<13	<10	<1.0	<40	<10	<25	NA	<1.0	
Total Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	NA	
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	<17	<20	<5.0	<5.0	<25	<2.0	<2.0	**3.3**	<2.0	<14	<2.0	NA	<2.0	
Site-Specific Metals - SW6010B - (mg/L)														
Total Silver														
Dissolved Silver														
Total Cadmium														
Dissolved Cadmium														
Total Chromium														
Dissolved Chromium														
Total Lead	Metals were not sampled and analyzed											Metals were not sampled and analyzed		
Dissolved Lead														
Total Copper														
Dissolved Copper														
Total Nickel														
Dissolved Nickel														
Total Zinc														
Dissolved Zinc														

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27
Sample Depth (well screen interval) (ft. bgs)	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'	2.2-7.2'
Sample Depth (well screen interval) (ft. btoc)	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'
Passive Diffusion Bag Sample Depth (ft. btoc)											
Date Sampled	10/20/2010	6/9/2011	1/18/2012	7/11/2012	1/9/2013	7/10/2013	1/8/2014	6/25/2014	1/13/2015	7/8/2015	12/15/2015
Laboratory	AES-Atlanta	Test America - Tampa	AES-Atlanta		Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method	Pump-LFLS	Pump-LFLS	Pump-LFLS		Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)											
1,1,1,2-Tetrachloroethane	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<5.0	**1.2**	**2.4**		**2.9**	**1.2**	**3.6**	<1.0	**2.2**	**1.2**	**2.5**
1,2,3-Trichlorobenzene	NA	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	NA	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	NA	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	<150	NA	<100		<50	<50	<150	NA	NA	NA	NA
Chloroform	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	**5.2**	**6.6**	**10**		**9.2**	**9.2**	**16.9**	**4.4**	**11.4**	**6.2**	**26.6**
Ethylbenzene	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	NA	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene	NA	NA	<1.0	DRY NOT SAMPLED	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	NA	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<5.0	<5.0	<1.0		<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Naphthalene	NA	<5.0	<5.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	**10**	**15**	**5.8**		**13**	**13**	**16**	**4.1**	**21.5**	**17.0**	**8.2**
Vinyl Chloride	<2.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m&p-xylenes	NA	<2.0	<1.0		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-xylene	NA	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes	<5.0	NA	NA		NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	<2.0	<5.0		<2.0	<2.0	<2.0	<2.0	<2.0	<16	<2.0
Site-Specific Metals - SW6010B - (mg/L)											
Total Silver											
Dissolved Silver											
Total Cadmium											
Dissolved Cadmium											
Total Chromium											
Dissolved Chromium											
Total Lead				Metals were not sampled and analyzed							
Dissolved Lead											
Total Copper											
Dissolved Copper											
Total Nickel											
Dissolved Nickel											
Total Zinc											
Dissolved Zinc											

Table 2: Summary of Detected Constituents in Groundwater Samples

Sample ID	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28
Sample Depth (well screen interval) (ft. bgs)	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'	2.1-7.1'
Sample Depth (well screen interval) (ft. btoc)	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'	5.0-10.0'
Passive Diffusion Bag Sample Depth (ft. btoc)											
Date Sampled	10/20/2010	6/9/2011	1/18/2012	7/11/2012	1/9/2013	7/10/2013	1/8/2014	6/25/2014	1/13/2015	7/8/2015	12/15/2015
Laboratory	AES-Atlanta	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
Purge Method/Sample Method	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS	Pump-LFLS
Constituent											
Volatile Organic Compounds - SW8260B - (µg/L)											
1,1,1,2-Tetrachloroethane	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<5.0	**1.4**	**1.8**	<1.0	<1.0	<1.0	<1.0	**2.4**	**2.7**	**3.6**	**3.1**
1,2,3-Trichlorobenzene	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	<150	NA	<100	<100	<50	<50	<150	NA	NA	NA	NA
Chloroform	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	**9.4**	**18**	**14**	**12**	**4.7**	**7.2**	**8.2**	**18.7**	**20.1**	**23.5**	**26.6**
Ethylbenzene	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Naphthalene	NA	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<5.0	**4.5**	**4.3**	**3.5**	<1.0	**1.2**	**1.5**	**3.6**	**5.2**	**5.5**	**6.3**
Vinyl Chloride	<2.0	**1.0**	<1.0	**1.1**	<1.0	<1.0	<1.0	<1.0	<1.0	**1.0**	<1.0
m&p-xylenes	NA	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-xylene	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane - Selective Ion Monitoring SW8260B (ug/L)	NA	<2.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<18	<2.0
Site-Specific Metals - SW6010B - (mg/L)											
Total Silver											
Dissolved Silver											
Total Cadmium											
Dissolved Cadmium											
Total Chromium											
Dissolved Chromium											
Total Lead	Metals were not sampled and analyzed										
Dissolved Lead											
Total Copper											
Dissolved Copper											
Total Nickel											
Dissolved Nickel											
Total Zinc											
Dissolved Zinc											

Notes:

NA	Constituent not analyzed
B	Result may be a false positive or biased high based upon detection of constituent in either field or laboratory blank sample.
E	Estimated concentration
J	The analyte was detected at concentration below laboratory quantitation limit
btoc	Below top of well casing
mg/L	Milligrams per liter
µg/L	Micrograms per liter
Pump LFLS/ Bailer	Well was purged using the low flow/low stress method with a submersible pump and clean dedicated tubing and the groundwater sample was collected using a disposable teflon bailer and rope.
Bailer/Bailer	Well was purged and sampled with a bailer.
Pump-LFLS	Well was purged and sampled using the low flow/low stress method with a submersible bladder or peristaltic pump and clean dedicated tubing
no purge/PDB	Well was not purged, groundwater sample collected with Passive Diffusion Bag Sampler
VIRP	Voluntary Investigation and Remediation Plan

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #1			Manson Branch #2 (MB#2)										
Sample Location		Surface water in Manson Branch south side of Hwy 24 Bridge			Seep in a Draw Down Slope of Thermo King plant building										
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	5/3/2000			5/3/2000			11/2/2000	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010
Laboratory		Lancaster Labs	STL-North Canton	Savannah Labs	Lancaster Labs	STL-North Canton	Savannah Labs	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)															
1,1,1-Trichloroethane	not established	<5.0	<5.0	<5.0	**200**	**160**	**170**	**290**	**15**	**39**	**300**	**1900**	**320**	**8.4**	
1,1,2-Trichloroethane	16	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	
1,1-Dichloroethene	7100	<5.0	<5.0	<5.0	**69**	**50**	**52**	**97**	**12**	**24**	<250	**1000**	**210**	**11**	
1,1-Dichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	
1,4-Dioxane	not established	<250	<250	NA	<250	<830	NA	<1200	<200	<330	<12000	<31000	<9600	<250	
Bromomethane	1500	<5.0	<10.0	<5.0	<5.0	<10.0	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<10.0	
Chloroethane	not established	<5.0	<10.0	<5.0	<5.0	<33	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<10.0	
Chloroform	470	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	
cis-1,2-Dichloroethene	not established	<5.0	<2.5	<5.0	**36**	**30**	**27**	**59**	**36**	**61**	<250	<620	<190	**89**	DRY
Ethylbenzene	2100	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	Not Sampled
p-Isopropyltoluene	not established	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	NA	NA	NA	NA	NA	<5.0	
Toluene	5980	<5.0	<5.0	<5.0	<5.0	<17	<5.0	<25.0	<4.0	<6.7	<250	<620	<190	<5.0	
trans-1,2-Dichloroethene	10000	<5.0	<2.5	<5.0	<5.0	<8.3	<5.0	<12	<2.0	<6.7	<250	<620	<190	<2.5	
Trichloroethene	30	<5.0	<5.0	<5.0	**490**	**460**	**440**	**720**	**120**	**210**	**1300**	**4400**	**930**	**310**	
Vinyl Chloride	2.4	<2.0	<5.0	<5.0	<2.0	<6.7	<2.0	<10.0	<4.0	<6.7	<100	<250	<77	<4.0	
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #2 (MB#2)													
Sample Location		Seep in a Draw Down Slope of Thermo King plant building													
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/2/2010	6/7/2011	1/17/2012	7/10/2012	8/7/2012	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015
Laboratory		Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)															
1,1,1-Trichloroethane	not established	**61**	**21**	**13**	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<50	**1.2**	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	**160**	**50**	**53**	**7.3**	**1.4**	**20**	**17**	**14**	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	not established	<50	**1.5**	**1.5**	**2.5**	**4.4**	**6.9**	**8.2**	**8.7**	**3.1**	**2.4**	**4.7**	**3.2**	**2.2**	**3.1**
1,4-Dioxane	not established	<2500	NA	<100	<100	<100	NA	<250	<50	<50	<150	<150	<150	<150	<150
Bromomethane	1500	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	**2**	<2.0	<2.0	<2.0
Chloroethane	not established	<50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**3.8**	**1.3**	<1.0	**1.8**	<1.0	<1.0	<1.0
Chloroform	470	<50	**1.5**	**1.3**	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	**180**	**70**	**85**	**95**	**46**	**170**	**170**	**130**	**18**	**6.5**	**12.2**	**3.8**	**3.3**	**6.8**
Ethylbenzene	2100	<50	<1.0	<1.0	**4.6**	**13**	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	<50	<1.0	<1.0	**5.0**	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5980	<50	**2.5**	<1.0	**180**	**22**	<1.0	<5.0	<1.0	<1.0	<1.0	**5.1**	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<50	<1.0	<1.0	<1.0	**2.3**	**2.2**	<5.0	**2.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	**1700**	**280**	**340**	**16**	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.4	<50	**2.5**	**2.5**	**20**	**9.3**	**84**	**71**	**81**	**21**	**13.8**	**31**	**15**	**12.4**	**30.6**
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	<20	NA	NA	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	0

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #3 (MB#3)										
Sample Location		Surface water in Manson Branch located 500 ft downstream of Hwy 24										
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/7/2000	6/7/2011	1/17/2012	7/10/2012	1/8/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/10/2015	12/16/2015
Laboratory		STL- North Canton	TestAmerica - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)												
1,1,1-Trichloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	<250	NA	<100	<100	<50	<50	<150	<150	<150	<150	<150
Bromomethane	1500	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	not established	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	470	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	2100	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5980	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.4	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #4	Manson Branch #5 (MB#5)											Manson Branch #6
Sample Location		Surface water in Manson Branch located 700 ft downstream of Hwy 24	Surface water in Manson Branch located 900 ft downstream of Hwy 24											Surface water in Manson Branch located 1100 ft downstream of Hwy 24
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/7/2000	6/7/2000	6/7/2011	1/17/2012	7/10/2012	1/8/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/10/2015	12/16/2015	6/7/2000
Laboratory		STL- North Canton	STL- North Canton	TestAmerica - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	STL- North Canton
CONSTITUENT (µg/L)														
1,1,1-Trichloroethane	not established	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,2-Trichloroethane	16	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1-Dichloroethene	7100	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1-Dichloroethane	not established	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,4-Dioxane	not established	<250	<250	NA	<100	<100	<50	<50	<150	<150	<150	<150	<150	<250
Bromomethane	1500	<10.0	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<10.0
Chloroethane	not established	<10.0	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
Chloroform	470	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
cis-1,2-Dichloroethene	not established	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5
Ethylbenzene	2100	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
p-Isopropyltoluene	not established	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Toluene	5980	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
trans-1,2-Dichloroethene	10000	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5
Trichloroethene	30	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Vinyl Chloride	2.4	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #7	Manson Branch #8	Manson Branch #9	Manson Branch #10	Manson Branch #11	Manson Branch #12	Manson Branch #14		
Sample Location		Surface water in Manson Branch located 1300 ft downstream of Hwy 24	Surface water in Manson Branch located 1575 ft downstream of Hwy 24	Surface water in Manson Branch located 2900 ft upstream of Hwy 17	Surface water in Manson Branch located 2100 ft upstream of Hwy 17	Surface water in Manson Branch located 1200 ft upstream of Hwy 17	Surface water in Manson Branch located at Hwy 17 bridge	Surface water in Manson Branch located at Hwy 24 bridge		
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/7/2000	6/7/2000	6/6/2000	6/6/2000	6/6/2000	6/6/2000	1/15/2003	2/26/2008	4/22/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
1,1,2-Trichloroethane	16	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0
1,1-Dichloroethene	7100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
1,1-Dichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0
1,4-Dioxane	not established	<250	<250	<250	<250	<250	<250	<200	<250	<250
Bromomethane	1500	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<1.0	<10.0	<10.0
Chloroethane	not established	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<1.0	<10.0	<10.0
Chloroform	470	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0
cis-1,2-Dichloroethene	not established	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<0.50	<2.5	<2.5
Ethylbenzene	2100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
p-Isopropyltoluene	not established	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0
Toluene	5980	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
trans-1,2-Dichloroethene	10000	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<0.50	<2.5	<2.5
Trichloroethene	30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0
Vinyl Chloride	2.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #15 (MB#15)												
Sample Location		Surface water in Manson Branch located about 450 ft downstream of Hwy 24 bridge												
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	2/27/2008	4/21/2010	6/7/2011	1/17/2012	7/10/2012	1/8/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/10/2015	12/16/2015
Laboratory		STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)														
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	<200	<250	<250	NA	<100	<100	<50	<50	<150	<150	<150	<150	<150
Bromomethane	1500	<1.0	<10.0	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	not established	<1.0	<10.0	<10.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	470	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	<0.50	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	2100	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	NA	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5980	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<0.50	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch #16 (MB#16)												
Sample Location		Surface water in Manson Branch located about 700 ft downstream of Hwy 24 bridge, opposite side of stream from wells MW-16/MW-18												
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	2/27/2008	4/21/2010	6/7/2011	1/17/2012	7/10/2012	1/8/2013	7/10/2013	1/9/2014	6/27/2014	1/14/2015	7/10/2015	12/15/2015
Laboratory		STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Pace Analytical		Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)														
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,4-Dioxane	not established	<200	<250	<250	NA	<100		<50	<50	<150		<150	<150	<150
Bromomethane	1500	<1.0	<10.0	<10.0	<5.0	<5.0		<1.0	<1.0	<2.0		<2.0	<2.0	<2.0
Chloroethane	not established	<1.0	<10.0	<10.0	<5.0	<5.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
Chloroform	470	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	<0.50	<2.5	<2.5	<1.0	<1.0	DRY	<1.0	<1.0	<1.0	DRY	<1.0	<1.0	<1.0
Ethylbenzene	2100	<1.0	<5.0	<5.0	<1.0	<1.0	Not Sampled	<1.0	<1.0	<1.0	Not Sampled	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	NA	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
Toluene	5980	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<0.50	<2.5	<2.5	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
Trichloroethene	30	<1.0	<5.0	<5.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	<2.0	NA		NA	NA	NA		NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch Seep West #2 (Seep #2)												
Sample Location		Seep Located 350 ft downstream of Hwy 24 on the west bank												
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/7/2000	11/2/2000	1/15/2003	3/24/2004	6/23/2004	8/30/2004	11/17/2004	2/27/2008	4/21/2010	6/7/2011	1/17/2012	7/10/2012	8/7/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	AES-Atlanta
CONSTITUENT (µg/L)														
1,1,1-Trichloroethane	not established	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	**1.7**	<1.0	<1.0
1,1-Dichloroethane	not established	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	<250	<250	<200	<250	<250	<250	<250	<250	<250	NA	<100	<100	<100
Bromomethane	1500	<10.0	<10.0	<1.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	not established	<10.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	<5.0
Chloroform	470	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	**3.8**	**7.9**	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5	**4.4**	**5.7**	**4.0**	**8.2**
Ethylbenzene	2100	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	<5.0	<5.0	NA	NA	NA	NA	NA	<5.0	<5.0	**4.5**	<1.0	<1.0	<1.0
Toluene	5980	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**2.0**	<1.0	**33**	**26**
trans-1,2-Dichloroethene	10000	<2.5	<2.5	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	<5.0	**5.4**	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	**7.4**	<1.0	**1.4**
Vinyl Chloride	2.4	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**1.4**	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0	NA	NA	<5.0

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Manson Branch Seep West #2 (Seep #2)								
Sample Location		Seep Located 350 ft downstream of Hwy 24 on the west bank								
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015
Laboratory		AES-Atlanta	TestAmerica - NorthCanton	TestAmerica - NorthCanton	TestAmerica - NorthCanton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	**3.7**	**4.6**	**3.1**	**1.2**	<1.0	<1.0	<1.0	<1.0	**1.0**
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	NA	<50	<50	<50	<150	<150	<150	<150	<150
Bromomethane	1500	<5.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	**23**	**21**	**18**	**11**	**3**	**7.1**	**3.9**	**13.4**	**8.1**
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	**2.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5980	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	**23**	**26**	**13**	**4.5**	**2.5**	**1.7**	**6.1**	**1.0**	**6.9**
Vinyl Chloride	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	<5.0	NA	NA	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep A						
Sample Location		Northeast CornerThermo King Eastern Parcel						
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/21/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)								
1,1,1-Trichloroethane	not established	<1.0		<5.0	<5.0		<5.0	
1,1,2-Trichloroethane	16	<1.0		<5.0	<5.0		<5.0	
1,1-Dichloroethene	7100	<1.0		<5.0	<5.0		<5.0	
1,1-Dichloroethane	not established	<1.0		<5.0	<5.0		<5.0	
1,4-Dioxane	not established	<200		<250	<250		<250	
Bromomethane	1500	<1.0		<5.0	<5.0		<10.0	
Chloroethane	not established	<1.0		<5.0	<5.0		<10.0	
Chloroform	470	<1.0		<5.0	<5.0		<5.0	
cis-1,2-Dichloroethene	not established	<0.50	DRY	<5.0	<5.0	DRY	<2.5	DRY
Ethylbenzene	2100	<1.0	Not Sampled	<5.0	<5.0	Not Sampled	<5.0	Not Sampled
p-Isopropyltoluene	not established	NA		NA	NA		<5.0	
Toluene	5980	<1.0		<5.0	<5.0		<5.0	
trans-1,2-Dichloroethene	10000	<0.50		<5.0	<5.0		<2.5	
Trichloroethene	30	<1.0		<5.0	<5.0		<5.0	
Vinyl Chloride	2.4	<1.0		<2.0	<2.0		<2.0	
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA		NA	NA		NA	

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep B											
Sample Location		Thermo King Eastern Parcel											
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/30/2004	11/17/2004	2/27/2008	4/21/2010	6/3/2010	June 2011	1/17/2012	7/10/2012	8/7/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES- Atlanta	AES- Atlanta
CONSTITUENT (µg/L)													
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<5.0	**10**	<5.0				<1.0		
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
1,4-Dioxane	not established	<200	<250	<250	<250	<420	<250				<100		
Bromomethane	1500	<1.0	<5.0	<5.0	<5.0	<8.4	<10.0				<5.0		
Chloroethane	not established	<1.0	<5.0	<5.0	<5.0	<8.4	<10.0				<5.0		
Chloroform	470	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
cis-1,2-Dichloroethene	not established	<0.50	<5.0	<5.0	<5.0	**16**	<2.5	DRY	DRY	DRY	<1.0	DRY	DRY
Ethylbenzene	2100	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0	Not Sampled	Not Sampled	Not Sampled	<1.0	Not Sampled	Not Sampled
p-Isopropyltoluene	not established	NA	NA	NA	NA	NA	<5.0				<1.0		
Toluene	5980	<1.0	<5.0	<5.0	<5.0	<8.4	<5.0				<1.0		
trans-1,2-Dichloroethene	10000	<0.50	<5.0	<5.0	<5.0	<8.4	<2.5				<1.0		
Trichloroethene	30	<1.0	<5.0	<5.0	<5.0	**41**	<5.0				**2.9**		
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<2.0	<3.3	<2.0				<1.0		
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA				NA		

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep B								
Sample Location		Thermo King Eastern Parcel								
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015
Laboratory		AES- Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical		Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,1-Dichloroethene	7100	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,4-Dioxane	not established	NA	<50	<50	<50	<150		<150		<150
Bromomethane	1500	<5.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Chloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
cis-1,2-Dichloroethene	not established	<1.0	<1.0	**27**	**5.2**	**3**	DRY	**9.3**	DRY	**7.9**
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	Not Sampled	<1.0	Not Sampled	<1.0
p-Isopropyltoluene	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Toluene	5980	<1.0	<1.0	**12**	**1.5**	<1.0		<1.0		**1.7**
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Trichloroethene	30	<1.0	<1.0	**6.3**	**1.2**	**1.4**		**2**		**1.5**
Vinyl Chloride	2.4	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	<5.0	NA	NA	NA	NA		NA		NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		**Seep C**											
Sample Location		**Thermo King Eastern Parcel, down slope of the draw**											
Sample Date	**Georgia Instream Water Quality Criteria (µg/L)**	**1/15/2003**	**3/24/2004**	**6/23/2004**	**8/31/2004**	**11/17/2004**	**2/27/2008**	**4/21/2010**	**6/2/2010**	**6/7/2011**	**1/17/2012**	**7/10/2012 (not sampled at Seep C location)**	**8/7/2012**
Laboratory		**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**STL- North Canton**	**Test America - North Canton**	**Test America - North Canton**	**Test America - North Canton**	**Test America - Tampa**	**AES-Atlanta**	**AES-Atlanta**	**AES-Atlanta**
CONSTITUENT (µg/L)													
1,1,1-Trichloroethane	not established	**120**	<140	<5.0	**380**	**380**	**49**	**28**	NA	**32**	**32**	<1.0	
1,1,2-Trichloroethane	16	<25	<140	<5.0	<310	<190	<10.0	<12	NA	**1.0**	<1.0	<1.0	
1,1-Dichloroethene	7100	**110**	<140	<5.0	<310	**240**	**99**	**64**	NA	**87**	**140**	**1.8**	Seep C
1,1-Dichloroethane	not established	<25	<140	<5.0	<310	<190	<10.0	<12	NA	<1.0	**4.0**	**7.3**	covered
1,4-Dioxane	not established	<1200	<7100	<250	<16000	<9600	<500	<620	NA	NA	<100	<100	with
Bromomethane	1500	<1.0	<140	<5.0	<310	<190	<20.0	<25	NA	<5.0	<5.0	<5.0	rip-rap
Chloroethane	not established	<25	<140	<5.0	<310	<190	<20.0	<25	NA	<5.0	<5.0	<5.0	and is no
Chloroform	470	<25	<140	<5.0	<310	<190	<10.0	<12	NA	**2.3**	**2.5**	<1.0	longer
cis-1,2-Dichloroethene	not established	**13**	<140	<5.0	<310	<190	**11**	**12**	NA	**19**	**130**	**32**	sampled
Ethylbenzene	2100	<25	<140	<5.0	<310	<190	<10.0	<12	NA	<1.0	<1.0	**25**	
p-Isopropyltoluene	not established	NA	NA	NA	NA	NA	<10.0	<12	NA	<1.0	<1.0	<1.0	
Toluene	5980	<25	<140	<5.0	<310	<190	<10.0	<12	NA	<1.0	<1.0	**180**	
trans-1,2-Dichloroethene	10000	<12	<140	<5.0	<310	<190	<5.0	<12	NA	<1.0	<1.0	<1.0	
Trichloroethene	30	**840**	**720**	<5.0	**1300**	**1000**	**670**	**500**	NA	**530**	**880**	<1.0	
Vinyl Chloride	2.4	<25	<57	<2.0	<120	<77	<10.0	<12	NA	<1.0	**11**	**14**	
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	<5.0	<20	NA	NA	

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep D						
Sample Location		Thermo King Eastern Parcel						
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)								
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dioxane	not established	<200	<250	<250	<250	<250	<250	<250
Bromomethane	1500	<1.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0
Chloroethane	not established	<1.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0
Chloroform	470	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5
Ethylbenzene	2100	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
p-Isopropyltoluene	not established	NA	NA	NA	NA	NA	<5.0	<5.0
Toluene	5980	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10000	<0.50	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5
Trichloroethene	30	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep G											
Sample Location		Thermo King Eastern Parcel											
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/21/2010	June 2011	1/17/2012	7/10/2012	8/7/2012	11/19/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	AES-Atlanta	AES-Atlanta
CONSTITUENT (µg/L)													
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		**1.9**	**5.2**	<1.0	<1.0
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	not established	<200	<250	<250	<360	<250	<250	<250		<100	<100	<100	NA
Bromomethane	1500	<1.0	<5.0	<5.0	<7.2	<5.0	<10.0	<10.0		<5.0	<5.0	<5.0	<5.0
Chloroethane	not established	<1.0	<5.0	<5.0	<7.2	<5.0	<10.0	<10.0		<5.0	<5.0	<5.0	<5.0
Chloroform	470	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	not established	**0.73**	**13**	**9.3**	<7.2	<5.0	<2.5	**7.7**	DRY	**7.4**	**49**	**6.2**	**7.6**
Ethylbenzene	2100	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0	Not Sampled	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	not established	NA	NA	NA	NA	NA	<5.0	<5.0		<1.0	<1.0	<1.0	**2.6**
Toluene	5980	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	<5.0		<1.0	**6.4**	**2.4**	<1.0
trans-1,2-Dichloroethene	10000	<0.50	<5.0	<5.0	<7.2	<5.0	<2.5	<2.5		<1.0	<1.0	<1.0	<1.0
Trichloroethene	30	<1.0	<5.0	<5.0	<7.2	<5.0	<5.0	**7.8**		**2.6**	<1.0	<1.0	**3.8**
Vinyl Chloride	2.4	<1.0	<2.0	<2.0	<2.9	<2.0	<2.0	<2.0		<1.0	<1.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA		NA	NA	<5.0	<5.0

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep G								Seep H						
Sample Location		Thermo King Eastern Parcel								Thermo King Eastern Parcel						
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015	1/15/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/21/2010
Laboratory		Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)																
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	**2.2**	**1.7**	<1.0	<1.0	**1.6**	**1.5**	**2.4**	**1.2**	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	**6.0**
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
1,4-Dioxane	not established	<50	<50	<50	<150	<150	<150	<150	<150	<200	<250	<420	<250	<250	<250	<250
Bromomethane	1500	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<8.4	<5.0	<5.0	<10.0	<10.0
Chloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<10.0	<10.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	**11**	**9.7**	**6.4**	**3.2**	**11**	**9.6**	**20.2**	**11**	**6.9**	**12**	**30**	**13**	**27**	<2.5	**26**
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
p-Isopropyltoluene	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	<5.0	<5.0
Toluene	5980	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<8.4	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<5.0	<8.4	<5.0	<5.0	<2.5	<2.5
Trichloroethene	30	**4.8**	**7.0**	<1.0	<1.0	<1.0	**2.4**	<1.0	<1.0	**24**	**15**	<8.4	<5.0	**7.1**	**5.1**	**38**
Vinyl Chloride	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<3.3	<2.0	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep H													
Sample Location		Thermo King Eastern Parcel													
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	6/3/2010	June 2011	1/17/2012	7/10/2012	8/7/2012	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/15/2015
Laboratory		Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	AES-Atlanta	AES-Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)															
1,1,1-Trichloroethane	not established	<2.0		<1.0	<1.0	**15**	**20**	<20	**12**	**9.6**	**4**	**3.5**	**3.1**	**1.4**	**3.1**
1,1,2-Trichloroethane	16	<2.0		<1.0	<1.0	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
1,1-Dichloroethene	7100	**12**		**2.3**	**6.7**	**69**	**140**	**84**	**77**	**58**	**29.1**	**27.9**	**25.8**	**21.2**	**30.7**
1,1-Dichloroethane	not established	<2.0		<1.0	**2.0**	**1.1**	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
1,4-Dioxane	not established	<100		<100	<100	<100	NA	<1000	<130	<84	<150	<150	<300	<150	<150
Bromomethane	1500	<2.0		<5.0	<5.0	<5.0	<5.0	<20	<2.5	<1.7	<2.0	<2.0	<4.0	**3.4**	<2.0
Chloroethane	not established	<2.0		<5.0	<5.0	<5.0	<5.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
Chloroform	470	<2.0		<1.0	<1.0	**2.6**	**2.3**	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	**1.5**
cis-1,2-Dichloroethene	not established	**63**	DRY	**16**	**110**	**120**	**64**	**47**	**45**	**64**	**22.3**	**45.2**	**33.8**	**75.9**	**40.1**
Ethylbenzene	2100	<2.0	Not Sampled	<1.0	<1.0	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
p-Isopropyltoluene	not established	<2.0		<1.0	<1.0	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
Toluene	5980	<2.0		<1.0	**170**	**19**	**1.6**	<20	<2.5	**1.8**	<1.0	<1.0	<2.0	<1.0	<1.0
trans-1,2-Dichloroethene	10000	<2.0		<1.0	**3.8**	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
Trichloroethene	30	**41**		**2.0**	<1.0	**800**	**550**	**610**	**530**	**490**	**180**	**185**	**359**	**157**	**275**
Vinyl Chloride	2.4	<2.0		<1.0	**31**	<1.0	<1.0	<20	<2.5	<1.7	<1.0	<1.0	<2.0	<1.0	<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA		NA	NA	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep I										
Sample Location		Thermo King Eastern Parcel										
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	1/15/2003	3/24/2004	6/23/2004	8/30-31/2004	11/17/2004	2/27/2008	4/22/2010	6/7/2011	1/17/2012	7/10/2012	8/7/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES-Atlanta	AES-Atlanta	
CONSTITUENT (µg/L)												
1,1,1-Trichloroethane	not established	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	<1.0	<1.0	**9.5**	
1,1,2-Trichloroethane	16	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	
1,1-Dichloroethene	7100	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	**9.3**	<1.0	**60**	
1,1-Dichloroethane	not established	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	**1.9**	<1.0	<1.0	
1,4-Dioxane	not established	<200	<250	<250		<250	<250	<250	NA	<100	<100	
Bromomethane	1500	<1.0	<5.0	<5.0		<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	
Chloroethane	not established	<1.0	<5.0	<5.0		<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	
Chloroform	470	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	<1.0	<1.0	**2.2**	
cis-1,2-Dichloroethene	not established	<0.50	<5.0	<5.0	DRY	<5.0	<2.5	<2.5	**64**	<1.0	**68**	DRY
Ethylbenzene	2100	<1.0	<5.0	<5.0	not sampled	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	not sampled
p-Isopropyltoluene	not established	NA	NA	NA		NA	<5.0	<5.0	**1.4**	<1.0	<1.0	
Toluene	5980	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	**2.3**	<1.0	**17**	
trans-1,2-Dichloroethene	10000	<0.50	<5.0	<5.0		<5.0	<2.5	<2.5	<1.0	<1.0	<1.0	
Trichloroethene	30	<1.0	<5.0	<5.0		<5.0	<5.0	<5.0	**2.5**	<1.0	**380**	
Vinyl Chloride	2.4	<1.0	<2.0	<2.0		<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA		NA	NA	NA	<2.0	NA	NA	

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep I									Seep J						
Sample Location		Thermo King Eastern Parcel									Thermo King Eastern Parcel						
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/27/2014	1/14/2015	7/9/2015	12/16/2015	5/14/2003	3/24/2004	6/23/2004	8/31/2004	11/17/2004	2/26/2008	4/22/2010
Laboratory		AES-Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical		Pace Analytical	Pace Analytical	Pace Analytical	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)																	
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<25	<5.0	<12.0	<33	<25	<5.0	<5.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<25	<5.0	<12.0	<33	<25	<5.0	<5.0
1,1-Dichloroethene	7100	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<25	<5.0	<12.0	<33	<25	<5.0	<5.0
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<25	<5.0	<12.0	<33	<25	<5.0	<5.0
1,4-Dioxane	not established	NA	<50	<50	<50	<150		<150		<150	<1000	<250	<620	<1700	<1200	<250	<250
Bromomethane	1500	<5.0	<1.0	<1.0	<1.0	<2.0		<2.0		<2.0	<25	<5.0	<12.0	<33	<25	<10.0	<10.0
Chloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<25	<5.0	<12.0	<33	<25	<10.0	<10.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<25	<5.0	<12.0	<33	<25	<5.0	<5.0
cis-1,2-Dichloroethene	not established	<1.0	<1.0	<1.0	**1.3**	<1.0	DRY	<1.0	DRY	**1.1**	**910**	**84**	**66**	**190**	**110**	<2.5	<2.5
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	not sampled	<1.0	not sampled	<1.0	<25	<5.0	<12.0	<33	<25	<5.0	<5.0
p-Isopropyltoluene	not established	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	NA	NA	NA	NA	NA	<5.0	<5.0
Toluene	5980	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	**280**	<5.0	<12.0	<33	<25	<5.0	<5.0
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	**13**	<5.0	<12.0	<33	<25	<2.5	<2.5
Trichloroethene	30	<1.0	<1.0	**4.2**	**1.9**	<1.0		<1.0		<1.0	<25	<5.0	<12.0	<33	<25	<5.0	<5.0
Vinyl Chloride	2.4	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<25	**26**	<5.0	<13	**11**	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	<5.0	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep K					
Sample Location		Northeast CornerThermo King Eastern Parcel					
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	3/24/2004	6/24/2004	8/31/2004	11/17/2004	2/26/2008	4/22/2010
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton
CONSTITUENT (µg/L)							
1,1,1-Trichloroethane	not established	<5.0	<5.0	<20	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	16	<5.0	<5.0	<20	<5.0	<5.0	<5.0
1,1-Dichloroethene	7100	<5.0	<5.0	<20	<5.0	<5.0	<5.0
1,1-Dichloroethane	not established	<5.0	<5.0	<20	<5.0	<5.0	<5.0
1,4-Dioxane	not established	<250	<250	<1000	<250	<250	<250
Bromomethane	1500	<5.0	<5.0	<20	<5.0	<10.0	<10.0
Chloroethane	not established	<5.0	<5.0	<20	<5.0	<10.0	<10.0
Chloroform	470	<5.0	<5.0	<20	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	not established	**10**	<5.0	**85**	<5.0	**12**	**5.3**
Ethylbenzene	2100	<5.0	<5.0	<20	<5.0	<5.0	<5.0
p-Isopropyltoluene	not established	NA	NA	NA	NA	<5.0	<5.0
Toluene	5980	<5.0	<5.0	<20	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10000	<5.0	<5.0	<20	<5.0	<2.5	<2.5
Trichloroethene	30	<5.0	<5.0	<20	<5.0	**13**	**5.8**
Vinyl Chloride	2.4	<2.0	<2.0	<8	<2.0	<2.0	<2.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA	NA

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep L										
Sample Location		Northeast CornerThermo King Eastern Parcel										
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	3/24/2004	6/24/2004	8/31/2004	11/17/2004	2/27/2008	4/21/2010	6/3/2010	June 2011	1/17/2012	7/10/2012	8/7/2012
Laboratory		STL- North Canton	STL- North Canton	STL- North Canton	STL- North Canton	Test America - North Canton	Test America - North Canton	Test America - North Canton	Test America - Tampa	AES- Atlanta	AES- Atlanta	AES- Atlanta
CONSTITUENT (µg/L)												
1,1,1-Trichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
1,1,2-Trichloroethane	16	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
1,1-Dichloroethene	7100	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
1,1-Dichloroethane	not established	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
1,4-Dioxane	not established	<250	<250	<250	<250	<250		<50		<100		
Bromomethane	1500	<5.0	<5.0	<5.0	<5.0	<10.0		<1.0		<5.0		
Chloroethane	not established	<5.0	<5.0	<5.0	<5.0	<10.0		<1.0		<5.0		
Chloroform	470	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
cis-1,2-Dichloroethene	not established	**5.4**	<5.0	<5.0	<5.0	<2.5	DRY	<1.0	DRY	<1.0	DRY	DRY
Ethylbenzene	2100	<5.0	<5.0	<5.0	<5.0	<5.0	not sampled	<1.0	not sampled	<1.0	not sampled	not sampled
p-Isopropyltoluene	not established	NA	NA	NA	NA	<5.0		<1.0		<1.0		
Toluene	5980	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
trans-1,2-Dichloroethene	10000	<5.0	<5.0	<5.0	<5.0	<2.5		<1.0		<1.0		
Trichloroethene	30	<5.0	<5.0	<5.0	<5.0	<5.0		<1.0		<1.0		
Vinyl Chloride	2.4	<2.0	<2.0	<2.0	<2.0	<2.0		<1.0		<1.0		
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	NA	NA	NA	NA	NA		NA		NA		

Table 3: Summary of Detected Constituents in Seeps and Surface Water

Sample Identification		Seep L								
Sample Location		Northeast CornerThermo King Eastern Parcel								
Sample Date	Georgia Instream Water Quality Criteria (µg/L)	11/19/2012	1/8/2013	4/11/2013	7/10/2013	1/9/2014	6/24/2014	1/14/2015	7/9/2015	12/16/2015
Laboratory		AES- Atlanta	Test America - North Canton	Test America - North Canton	Test America - North Canton	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical	Pace Analytical
CONSTITUENT (µg/L)										
1,1,1-Trichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
1,1,2-Trichloroethane	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
1,1-Dichloroethene	7100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
1,1-Dichloroethane	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
1,4-Dioxane	not established	NA	<50	<50	<50	<150	<150	<150		<150
Bromomethane	1500	<5.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0		<2.0
Chloroethane	not established	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
Chloroform	470	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
cis-1,2-Dichloroethene	not established	**2.0**	**5.9**	**4.6**	<1.0	<1.0	<1.0	**2.4**	DRY	<1.0
Ethylbenzene	2100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	not sampled	<1.0
p-Isopropyltoluene	not established	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
Toluene	5980	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
trans-1,2-Dichloroethene	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
Trichloroethene	30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.5**		<1.0
Vinyl Chloride	2.4	<1.0	**1.3**	**2.1**	<1.0	<1.0	<1.0	<1.0		<1.0
1,4-Dioxane - Selective Ion Monitoring SW8260B	not established	<5.0	NA	NA	<1.0	NA	NA	NA		NA

Notes:

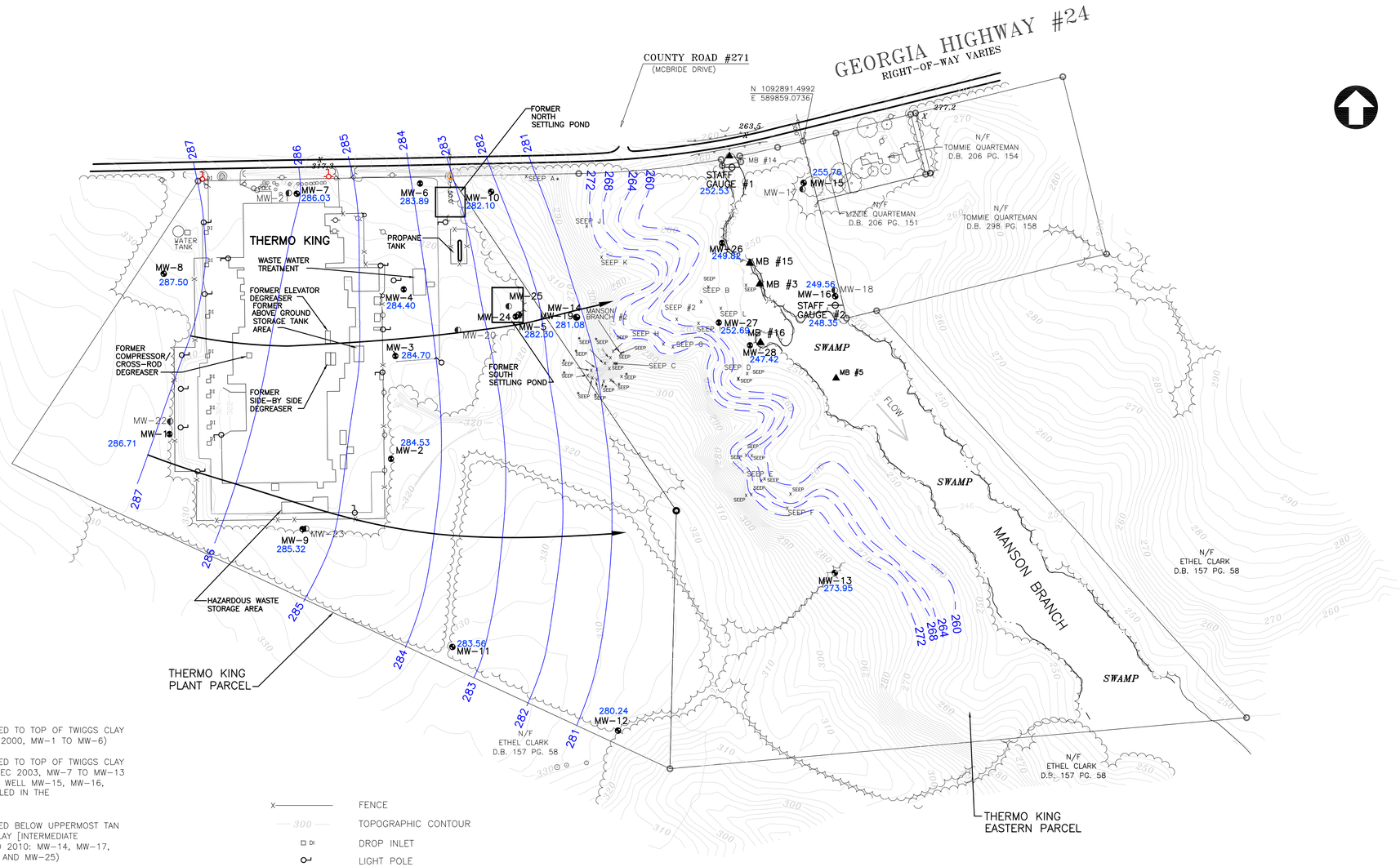
µg/L	micrograms per liter
Hwy	Highway
NA	Sample not analyzed for this constituent
E	Estimated; result exceeds calibration range
(a)	Georgia 391-3-6-.03 Water Use Classifications and Water Quality Standards. (ISWQC) 10/22/2013
	Exceeds Georgia ISWQC
BOLD	**Detected Concentration**

Prepared by/Date: MHA 7/30/2015 DP 1/7/2016
Checked by/Date: RNQ 8/13/2015 RNQ 1/14/2016

Table 4: Summary of Hours Invoiced and Description of Services for Documentation of PE Direct Oversight for Voluntary Remediation Program Activities

	Hours Invoiced	Billing Period	Invoice #	Description of Services
Gregory J. Wrenn, P.E.	4	7/25/2015 through 9/18/2015	H081002425 9/25/2015	Reviewed field and laboratory results of the July sampling event and began preparation of VRP Status Report No. 9. Data quality evaluation was conducted on laboratory results.
Total Project Hours for Billing Period	95.5			
Gregory J. Wrenn, P.E.	2	8/22/2015 through 10/23/2015	H081002768 10/30/2015	Sub-Slab Soil Management Plan was updated to include procedures and a checklist for preparation for, conducting of, and restoration following soil disturbance event.
Total Project Hours for Billing Period	23.4			
Gregory J. Wrenn, P.E.	0	9/19/2015 through 10/23/2015	H081002781 11/10/2015	Resampling and analysis of well W-22 after detection of low concentrations of VOCs during the semi-annual sampling event, communications with Ingersoll Rand and general project management.
Total Project Hours for Billing Period	15.1			
Gregory J. Wrenn, P.E.	2	10/23/2015 through 11/20/2015	H081002805 11/24/2015	Preparation and submittal of fourth quarter 2015 remediation reserves for the site. Bi-monthly conference calls with Ingersoll Rand. Evaluation of strategy for preparation VRP Compliance Status Report, evaluation of data needs for update of the groundwater modeling for the UWBZ and IWBZ+E8.
Total Project Hours for Billing Period	15.5			
Gregory J. Wrenn, P.E.	0	10/24/2015 through 11/20/2015	H081002806 11/24/2015	Preparation of SSMP checklist for soil disturbance event, an update of the Sub-Slab Soil Management Plan to include checklist procedures and references to additional documents required by checklist. Preparation of final environmental covenant including vapor intrusion language. Submittal of covenant to Thermo King to sign and preparation and submittal of final environmental covenant package to EPD. General project management including invoicing and conference call to discuss the covenant submittal to EPD.
Total Project Hours for Billing Period	10.4			
Gregory J. Wrenn, P.E.	1	11/21/2015 through 12/11/2015	H081002847 12/23/2015	Coordination and preparation for the 10th VRP implementation sampling event to be conducted in December 2015.
Total Project Hours for Billing Period	9.4			
Total Hours for PE Gregory J. Wrenn	**9**			
Total Project Hours	**169.3**			

FIGURES



LEGEND

MW-1	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
MW-7	GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-13 AND MW-19, EXCEPT MW-14) MONITORING WELL MW-15, MW-16, MW-26, MW-27 AND MW-28 WERE INSTALLED IN THE COLLUVIAL/ALLUVIAL MATERIAL.
MW-14	GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003 AND 2010: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23 AND MW-25)
MW-24	GROUND-WATER MONITORING WELL INSTALLED IN LOWER WATER BEARING ZONE.
SEEP A 299.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L Manson Branch #2, and Seep #2)
SEEP 252.9	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB#3, MB#5, MB#14, MB#15, MB#16)
	STAFF GAUGE FOR MEASURING SURFACE WATER ELEVATION
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM
X	FENCE
300	TOPOGRAPHIC CONTOUR
DI	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY
286.90	GROUND-WATER ELEVATION IN FEET, NAVD 1988 (DECEMBER 14, 2015)
284	POTENTIOMETRIC SURFACE CONTOUR IN FEET, NAVD 1988 IN UPPERMOST WATER-BEARING ZONE
	INTERPRETED DIRECTION OF GROUND-WATER FLOW IN UPPERMOST WATER-BEARING ZONE
X	SEEPS NOT USED IN CONTORING

NOTE: GROUNDWATER ELEVATIONS NOT USED IN CONTOURING WELLS MW-15, MW-16, MW-26, MW-27, AND MW-28 ARE SCREENED IN COLLUVIAL/ALLUVIAL MATERIAL ALONG MANSON BRANCH AND NOT THE UPPERMOST WATER BEARING ZONE.

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH. AND GROUND SURVEYING. 2000 CSR SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

SCALE IN FEET
0 200 400

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DESIGNED	M. ANDREWS
DRAWN	T. GLADSTONE
CHECKED	R. QUINN
IN CHARGE	D. ALCOTT
DATE	3/7/2016

THERMO KING CORPORATION
LOUISVILLE, GEORGIA

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

amec foster wheeler

POTENTIOMETRIC SURFACE MAP FOR UPPERMOST WATER-BEARING ZONE DECEMBER 2015

FIGURE: 1

SCALE	AS SHOWN
CONTRACT	6122-09-0322
DWG. NO.	
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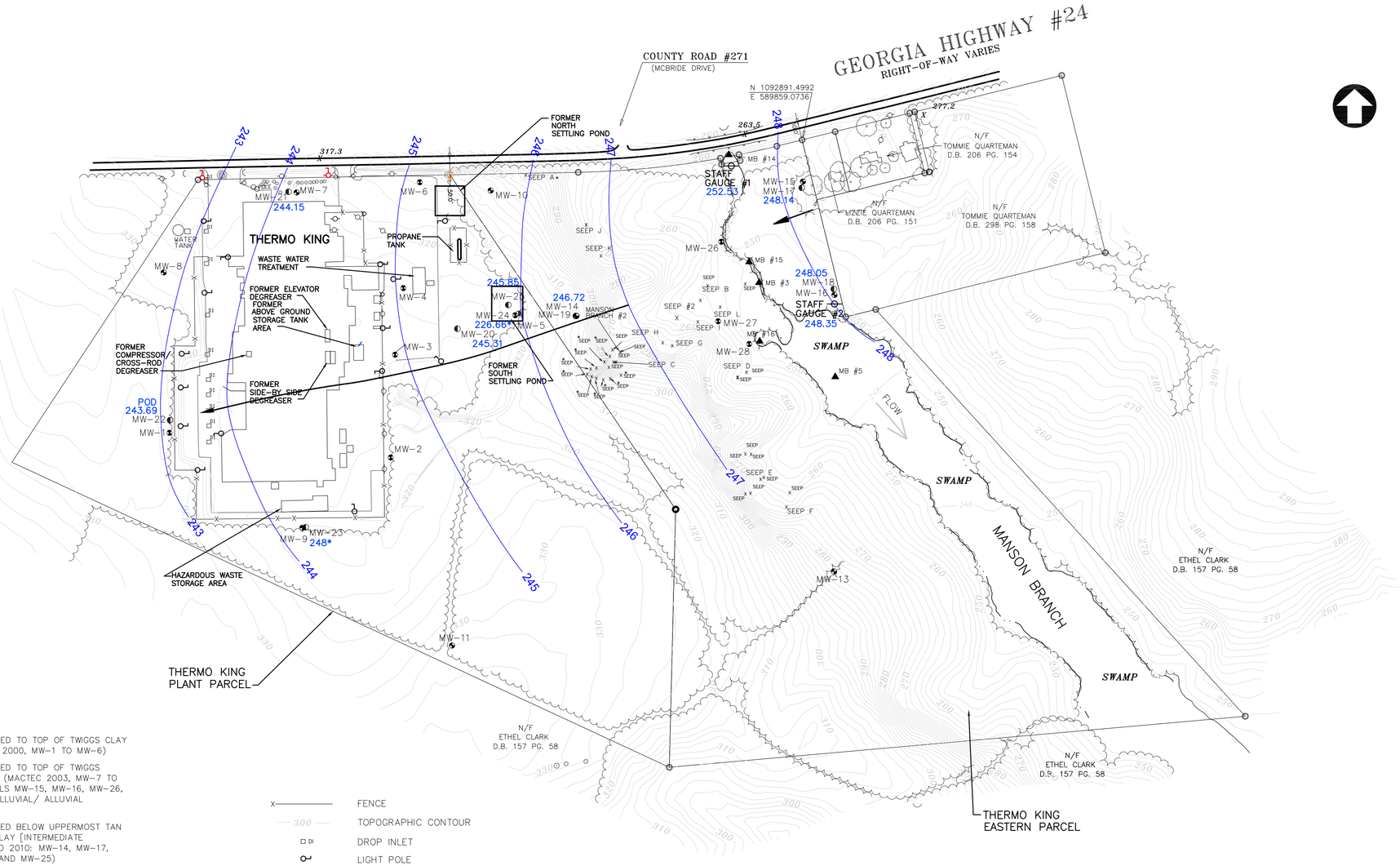
J:\Thermo King\JANUARY 2016\POTMAP-UPPERMOST_DEC 2015.dwg - Layout1 03/08/2016 4:21pm Tonya.gladstone



LEGEND

MW–1	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (ESC 2000, MW–1 TO MW–6)
MW–7	GROUND–WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER–BEARING ZONE] (MACTEC 2003, MW–7 TO MW–13 AND MW–19, EXCEPT MW–14). WELLS MW–15, MW–16, MW–26, MW–27 AND MW–28 INSTALLED IN THE COLLUVIAL/ ALLUVIAL MATERIAL, MACTEC 2003 AND 2010.
MW–14	GROUND–WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE–GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER–BEARING ZONE] (MACTEC 2003 AND 2010: MW–14, MW–17, MW–18, MW–20, MW–21, MW–22, MW–23 AND MW–25)
MW–24	GROUND–WATER MONITORING WELL INSTALLED IN LOWER WATER BEARING ZONE.
SEEP A 295.0	WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
X SEEP 274.0	WATER SEEP WITH ELEVATION
MB #14	MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MB#3, MB#5, MB#14, MB#15, MB#16)
	STAFF GAUGE FOR MEASURING SURFACE WATER ELEVATION
	BUSH
	BUSHLINE
	TREE
	TREELINE
	HEDGE
	STREAM

X	FENCE
300	TOPOGRAPHIC CONTOUR
DI	DROP INLET
	LIGHT POLE
	PROPERTY BOUNDARY
245.96	GROUND–WATER ELEVATION IN FEET, NAVD 1988 (DECEMBER 14, 2015)
284	POTENTIOMETRIC SURFACE CONTOUR IN FEET, NAVD 1988 IN INTERMEDIATE WATER–BEARING ZONE
	INTERPRETED DIRECTION OF GROUND–WATER FLOW IN INTERMEDIATE WATER–BEARING ZONE
X	SEEPS NOT USED IN CONTORING
POD	POINT OF DEMONSTRATION WELL

NOTE:
1. MW–23 AND MW–24 WERE NOT USED IN CONTOURING.
2. *MW–23 WELL WAS OBSTRUCTED BY A TANGLED PDB TETHER PREVENTING AN ACCURATE WATER LEVEL READING.

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH. AND GROUND SURVEYING. 2000 CSR SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. SEPTEMBER 2003. DECEMBER 2004 LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

SCALE IN FEET
0 200 400

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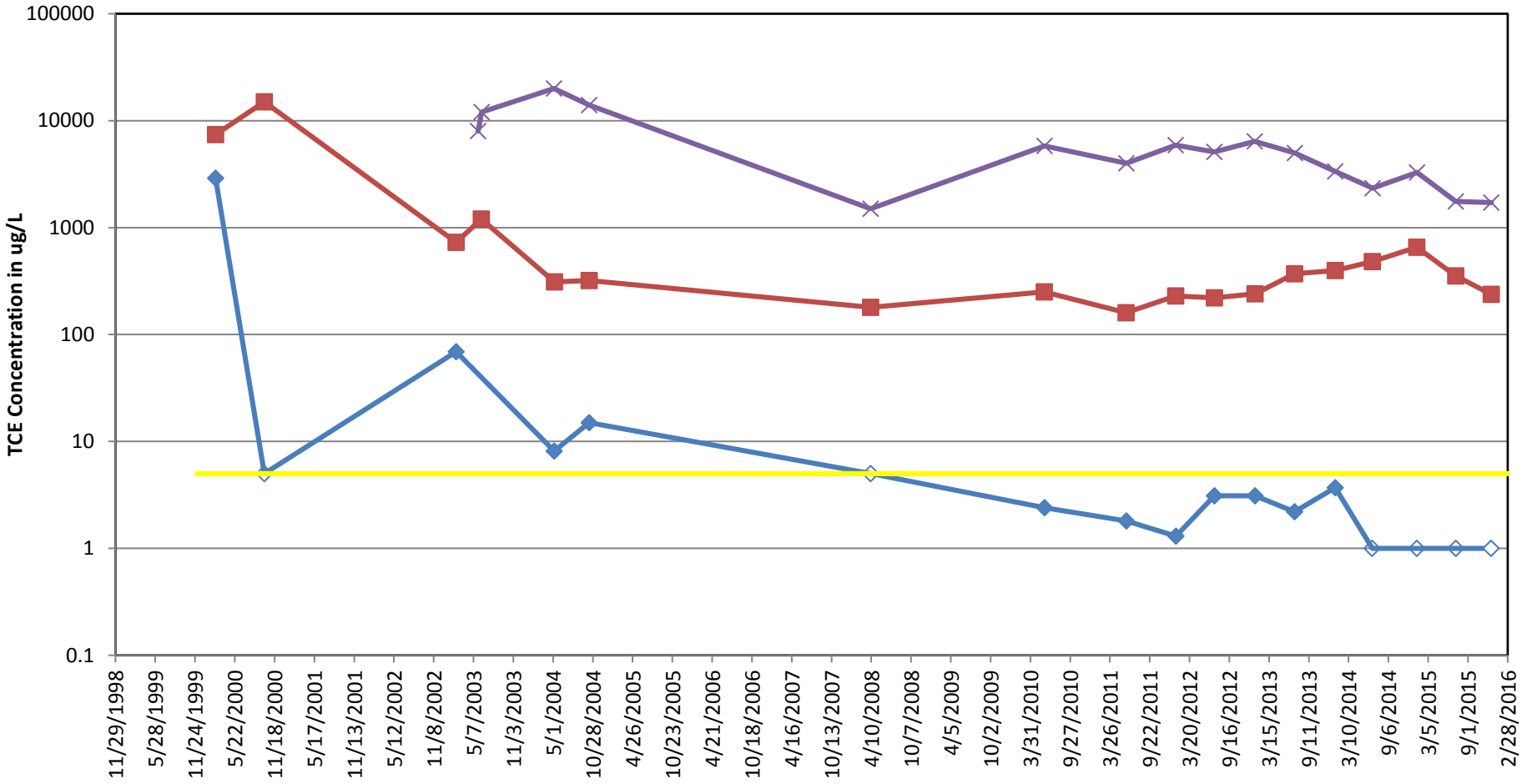
DESIGNED M. ANDREWS DRAWN T. GLADSTONE CHECKED R. QUINN IN CHARGE D. ALCOTT DATE 3/7/2016		THERMO KING CORPORATION LOUISVILLE, GEORGIA	SCALE AS SHOWN CONTRACT 6122–09–0322
		AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC. 1075 BIG SHANTY ROAD, NW, SUITE 100 KENNESAW, GEORGIA 30144 (770) 421–3400	POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE WATER–BEARING ZONE DECEMBER 2015 FIGURE: 2
		amec foster wheeler	DWG. NO. / REV / PAGE NO

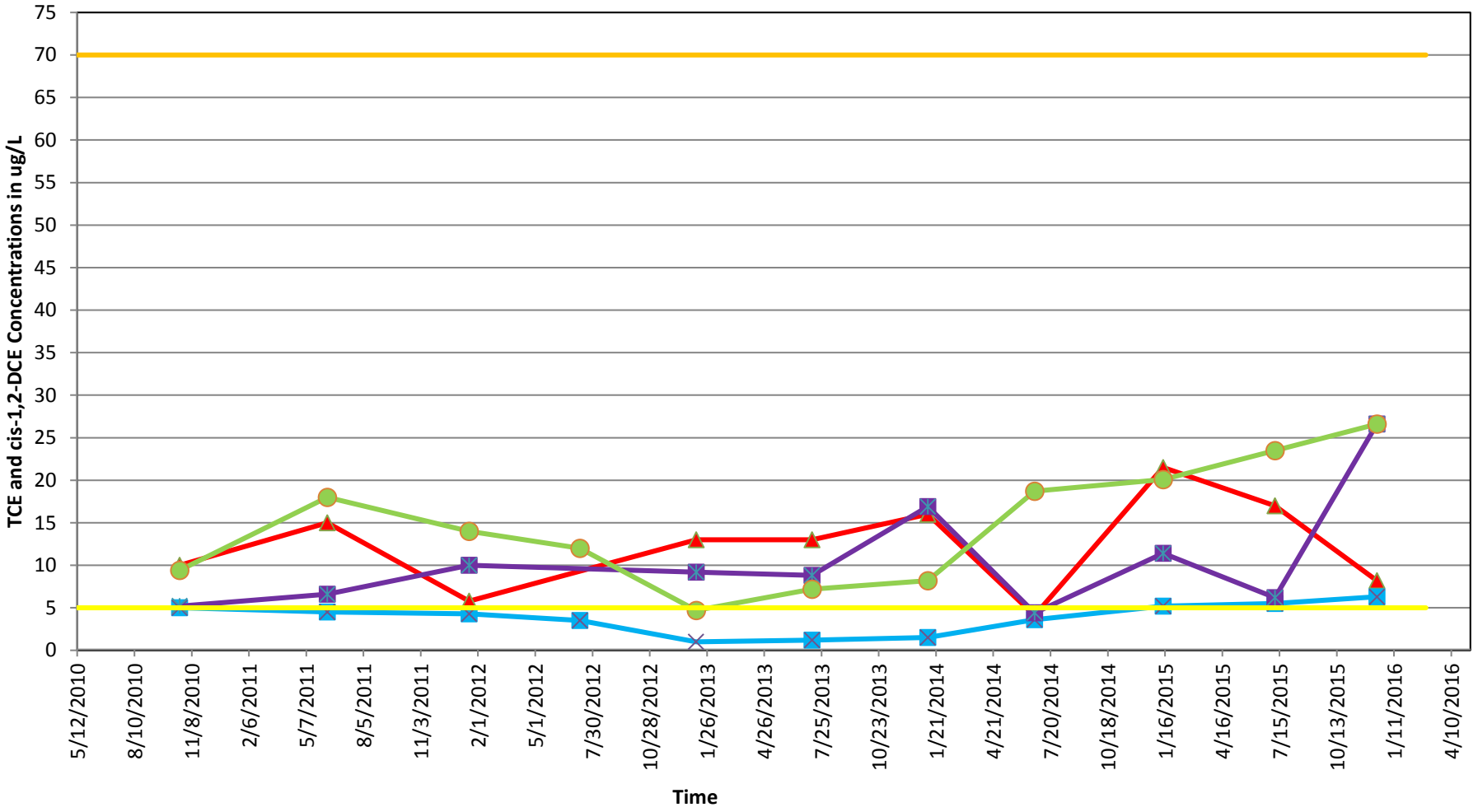
J:\Thermo King\JANUARY 2016\POT-INTERMEDIATE DEC 2015.dwg - Layout1 03/08/2016 4:21pm Tonya.gladstone

Figure 3: Time Trend of TCE in Uppermost Water Bearing Zone Wells



Open symbols indicate TCE was not detected above the laboratory quantitation limit shown.

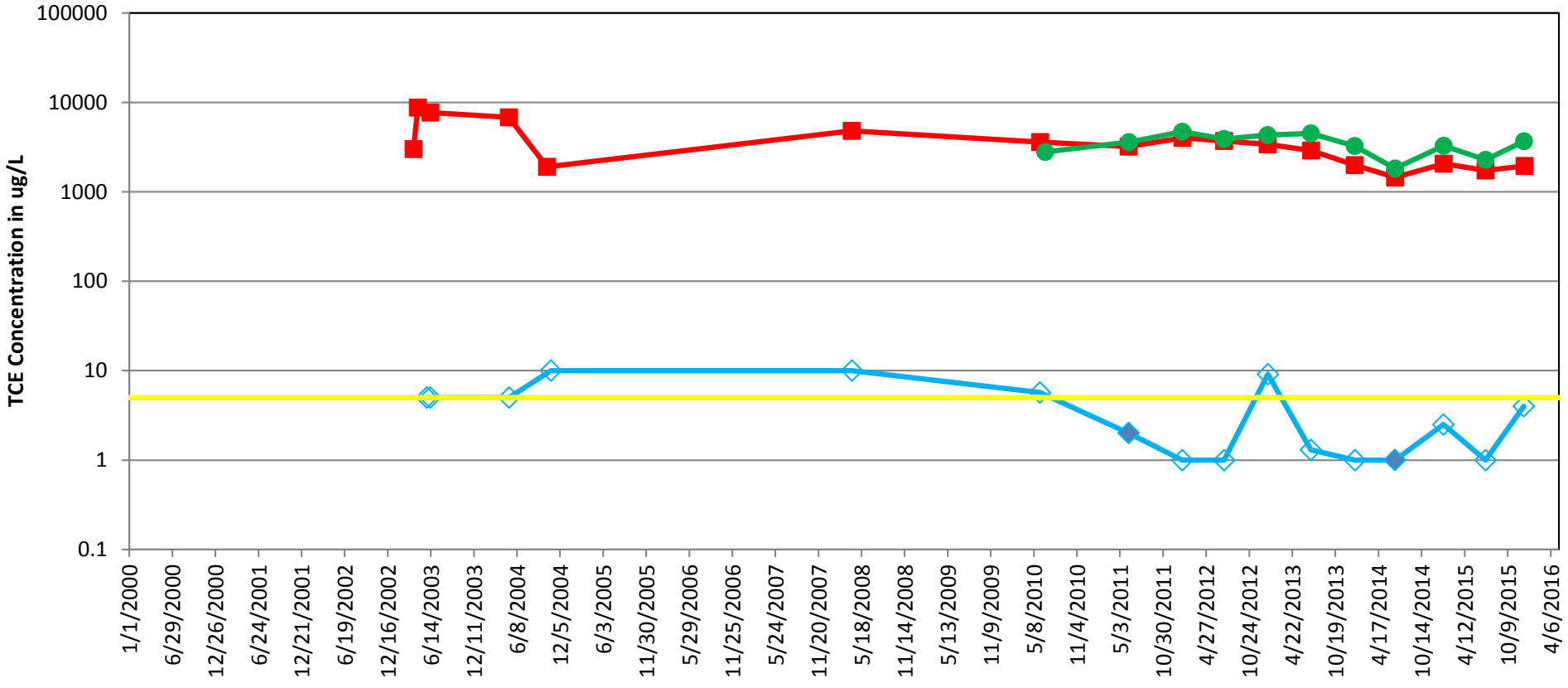
Figure 4: Time Trend of TCE and Cis-1,2-DCE in Wells MW-27 and MW-28



Open symbols indicate TCE and cis-1,2-DCE were not detected above the laboratory quantitation limits shown.

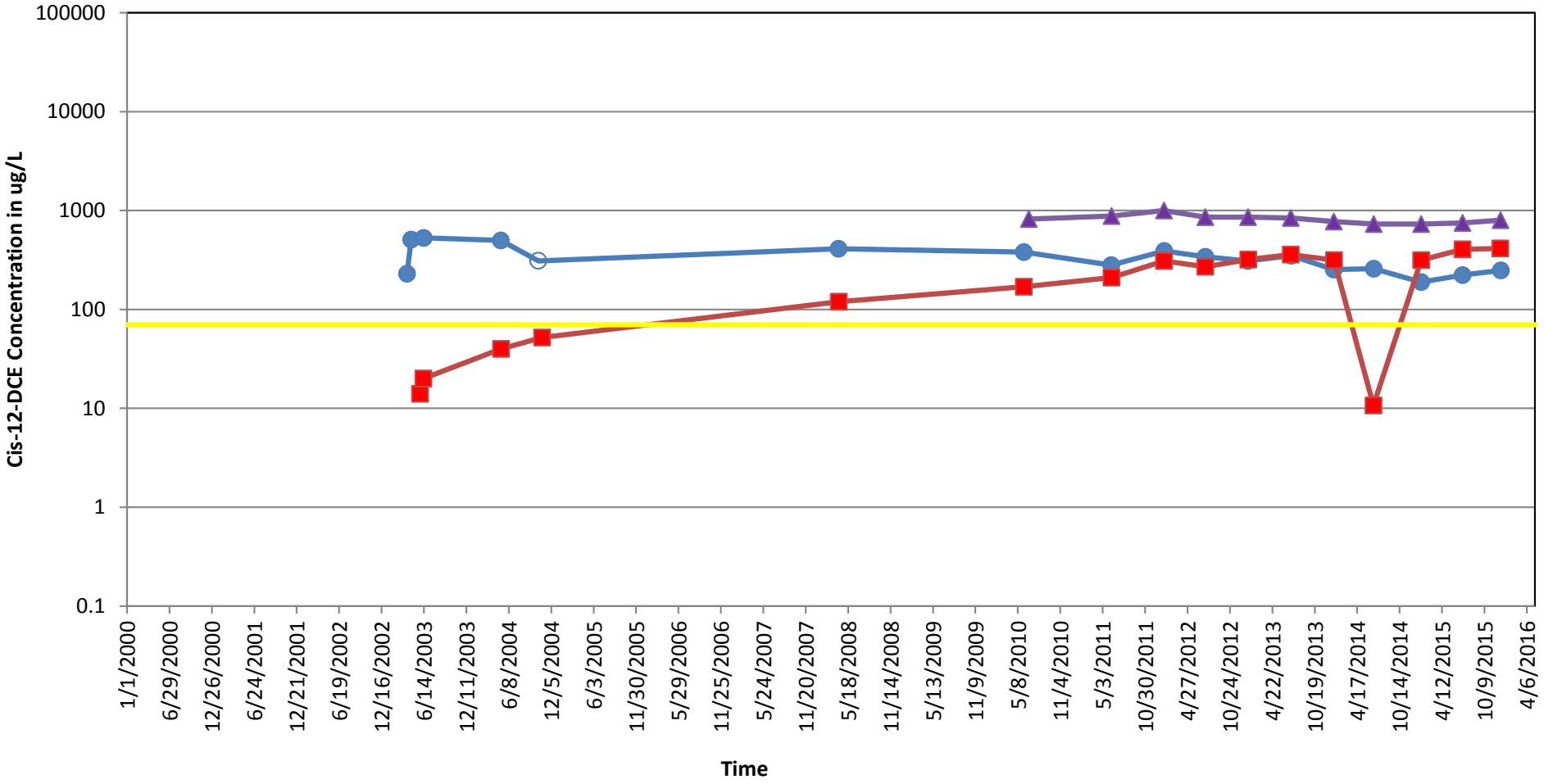
MW-27 TCE | MW-28 TCE | MW-27 cis-1,2-DCE | MW-28 cis-1,2-DCE | TCE MCL = 5 ug/L | cis-1,2-DCE MCL = 70 ug/L

Figure 5: Time Trend of TCE in Intermediate Water Bearing Zone Wells



Open symbols indicate TCE was not detected above the laboratory quantitation limit shown.

Figure 6: Time Trend of Cis-1,2-DCE in Intermediate Water Bearing Zone Wells



Open symbols indicate cis-1,2-DCE was not detected above the laboratory quantitation limit shown.

MW-14 cis-1,2-DCE MW-20 cis-1,2-DCE MW-25 cis-1,2-DCE cis-1,2-DCE MCL = 70 ug/L

Figure 7: Time Trend of TCE in Seeps (2012-2015)

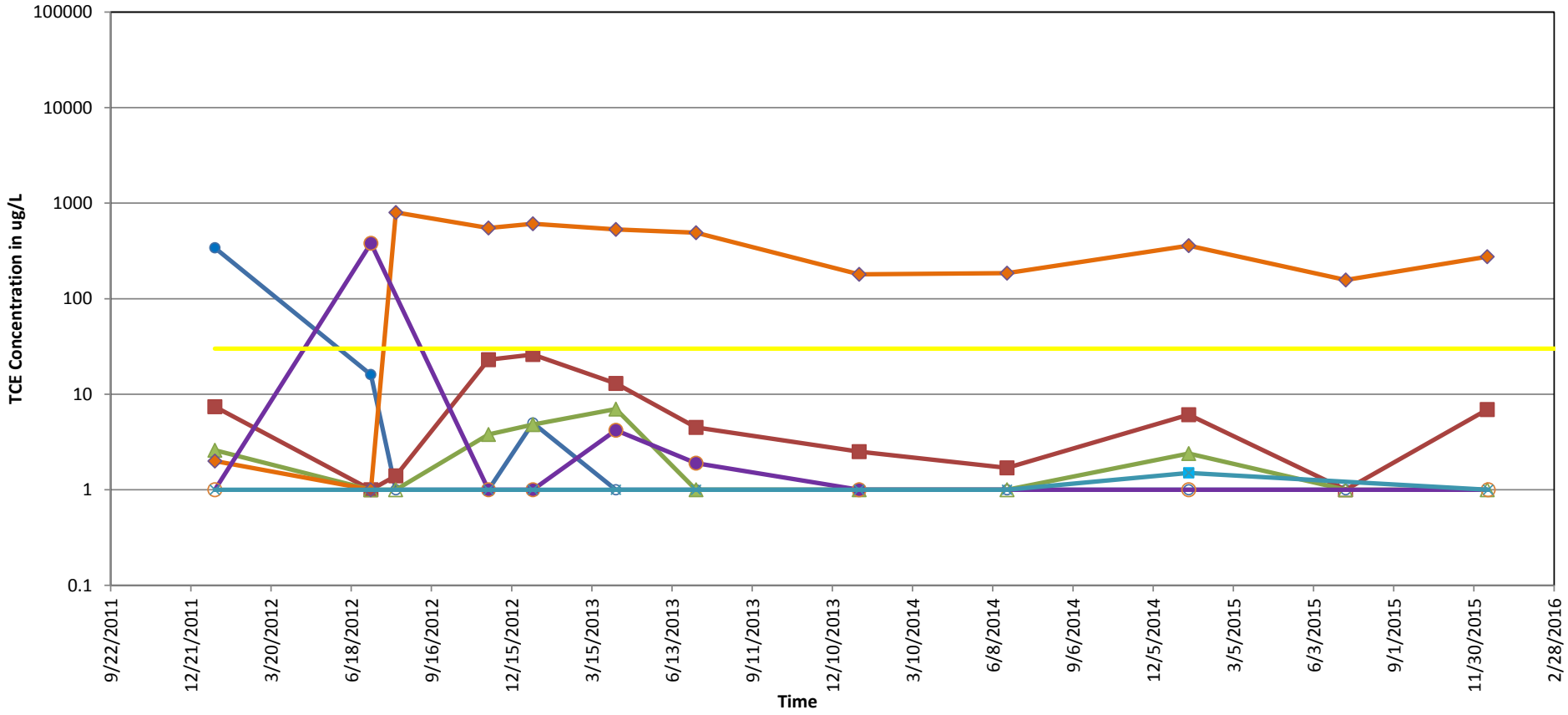
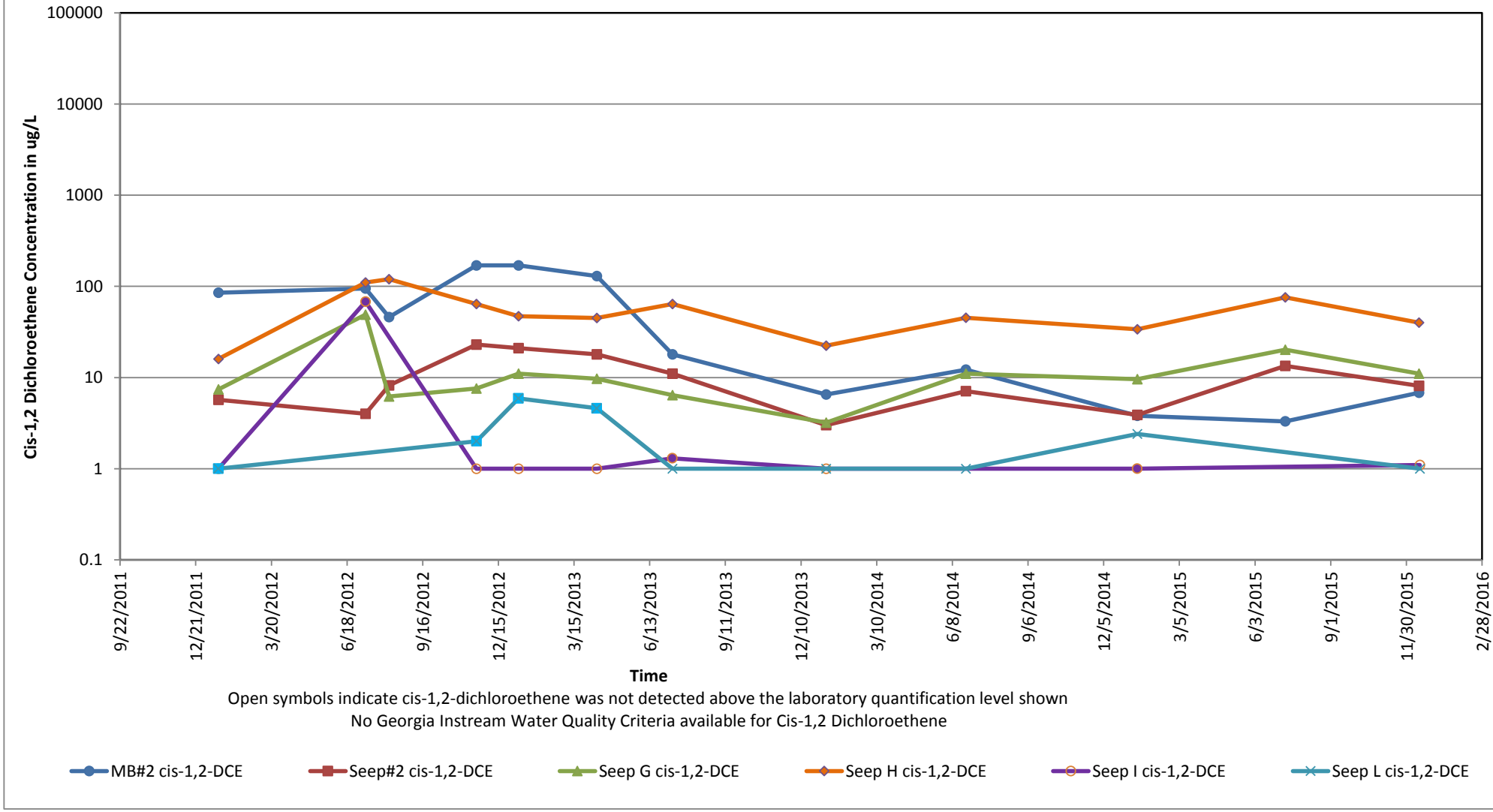


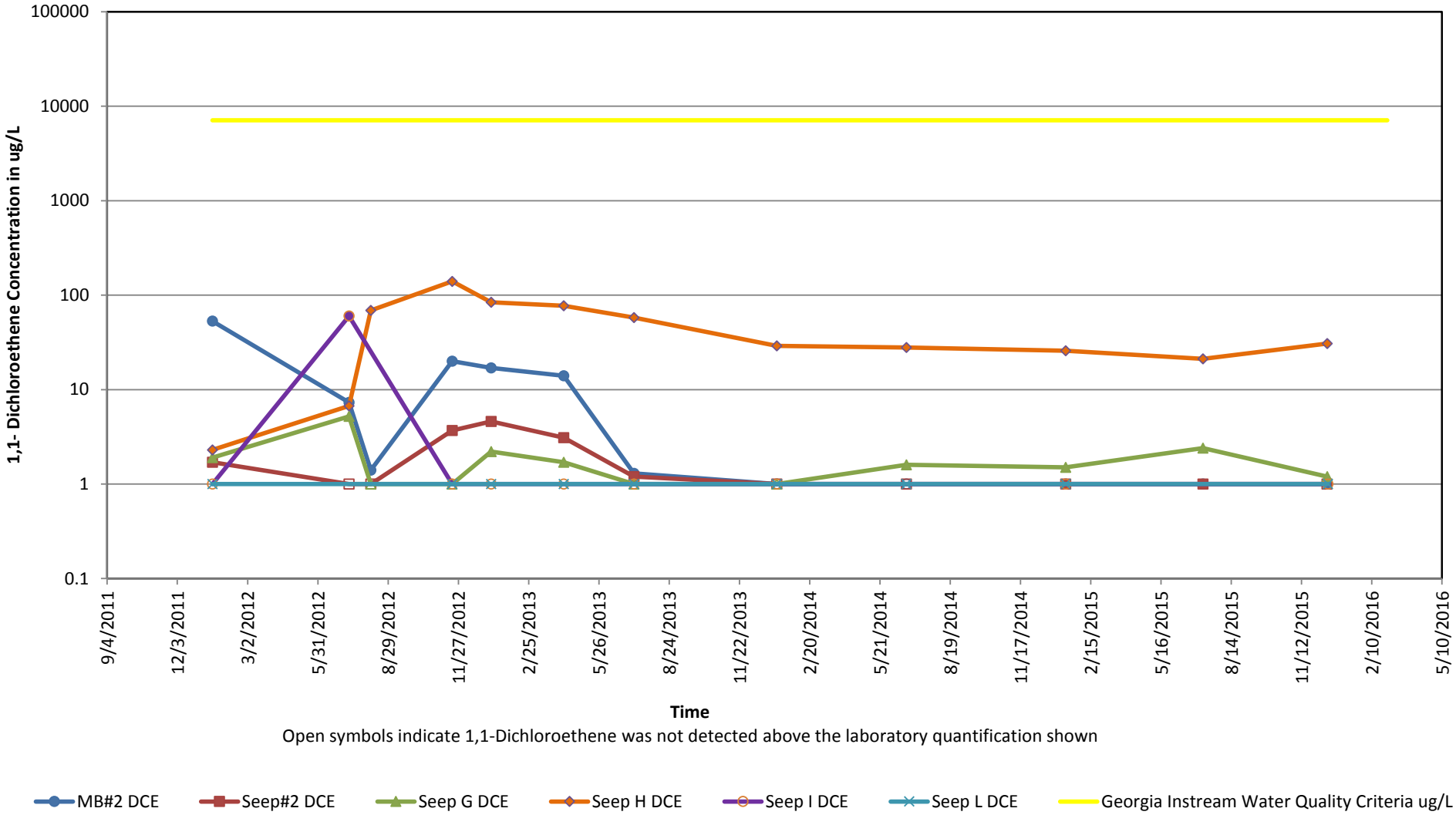
Figure 8: Time Trend of Cis-1,2-Dichloroethene in Seeps (2012-2015)



Open symbols indicate cis-1,2-dichloroethene was not detected above the laboratory quantification level shown

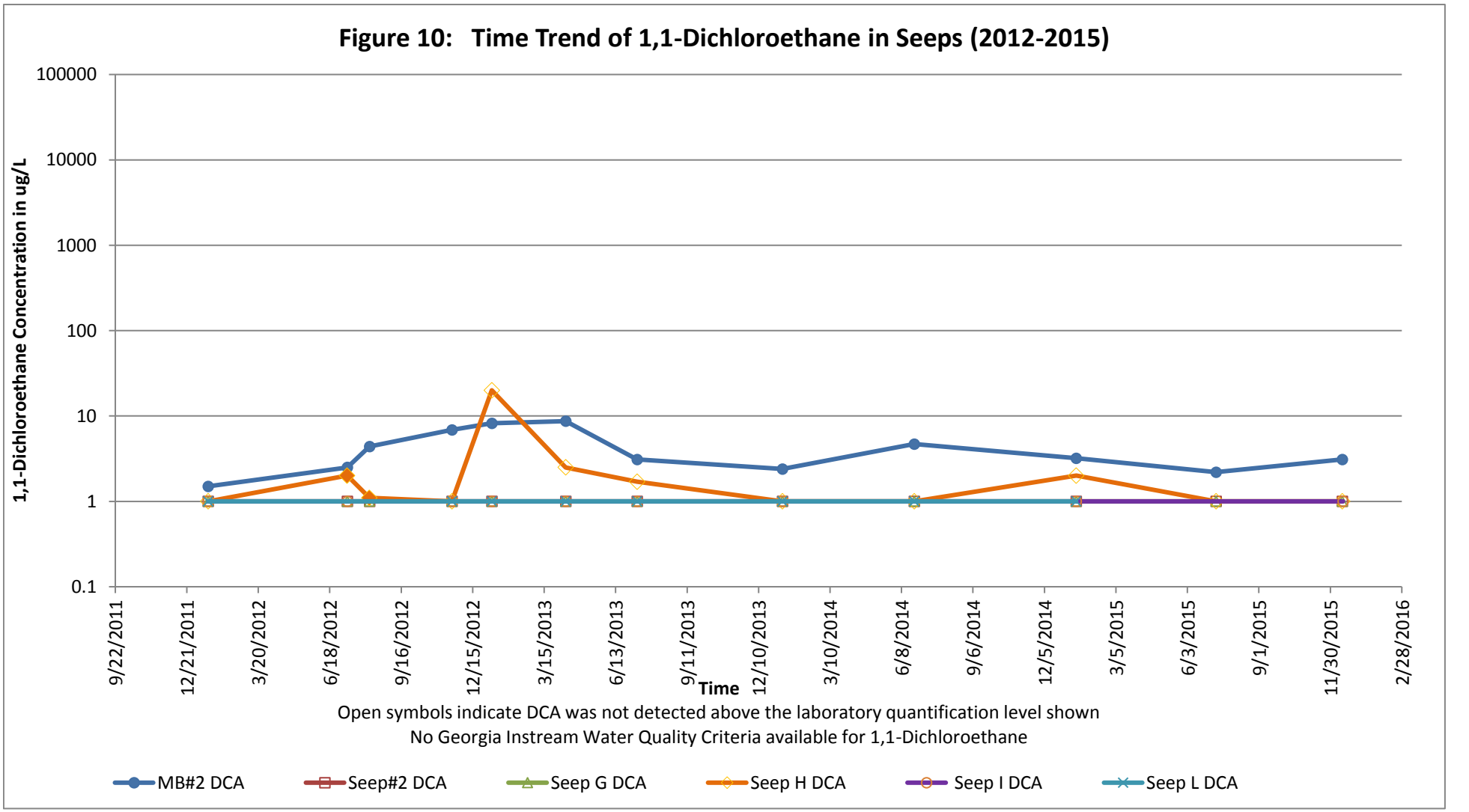
No Georgia Instream Water Quality Criteria available for Cis-1,2 Dichloroethene

Figure 9: Time Trend of 1,1-Dichloroethene in Seeps (2012-2015)



Open symbols indicate 1,1-Dichloroethene was not detected above the laboratory quantification shown

Figure 10: Time Trend of 1,1-Dichloroethane in Seeps (2012-2015)



Open symbols indicate DCA was not detected above the laboratory quantification level shown

No Georgia Instream Water Quality Criteria available for 1,1-Dichloroethane

Figure 11: Time Trend of Toluene in Seeps (2012-2015)

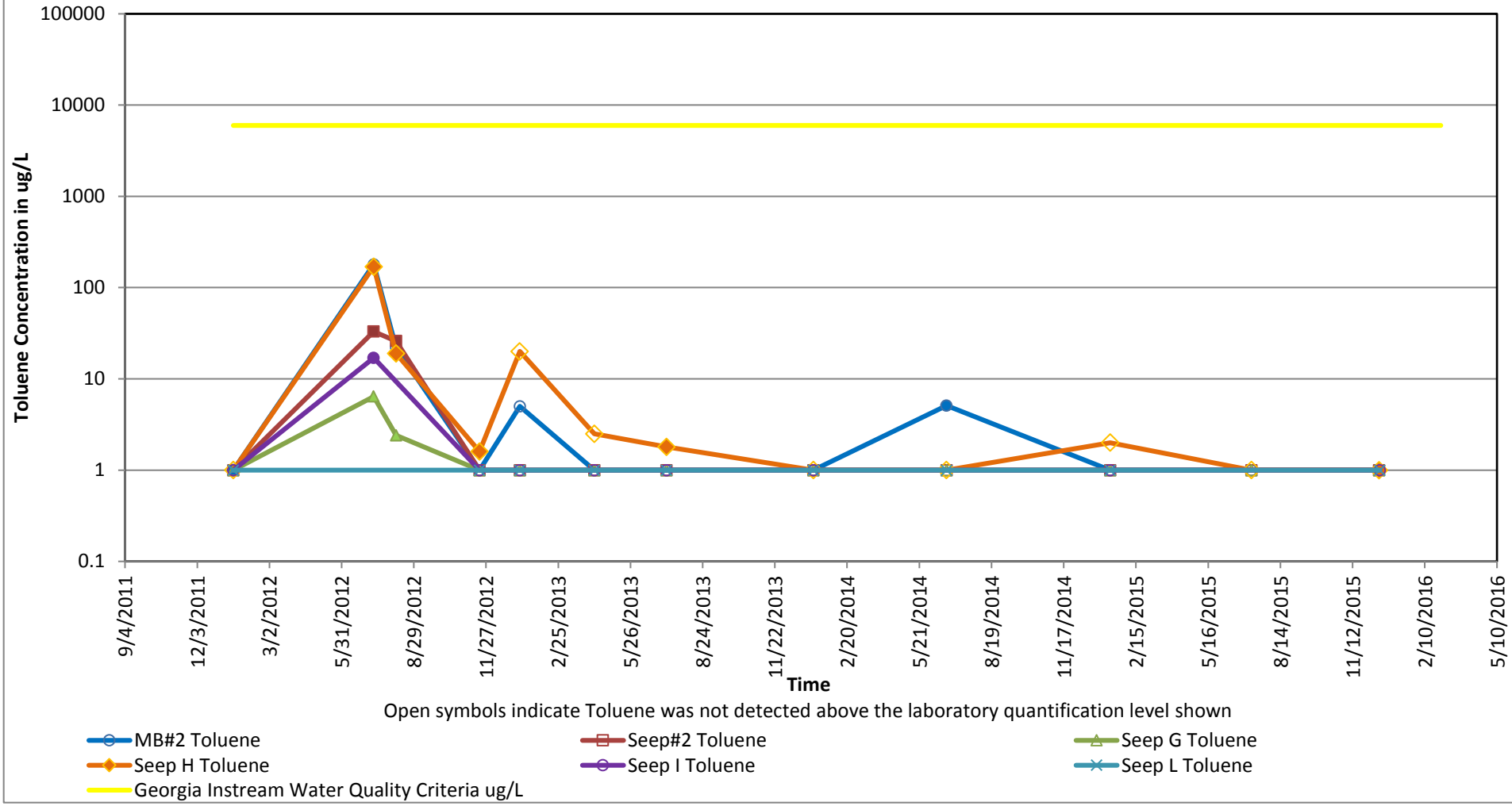


Figure 12: Time Trend of Vinyl Chloride in Seeps (2012-2015)

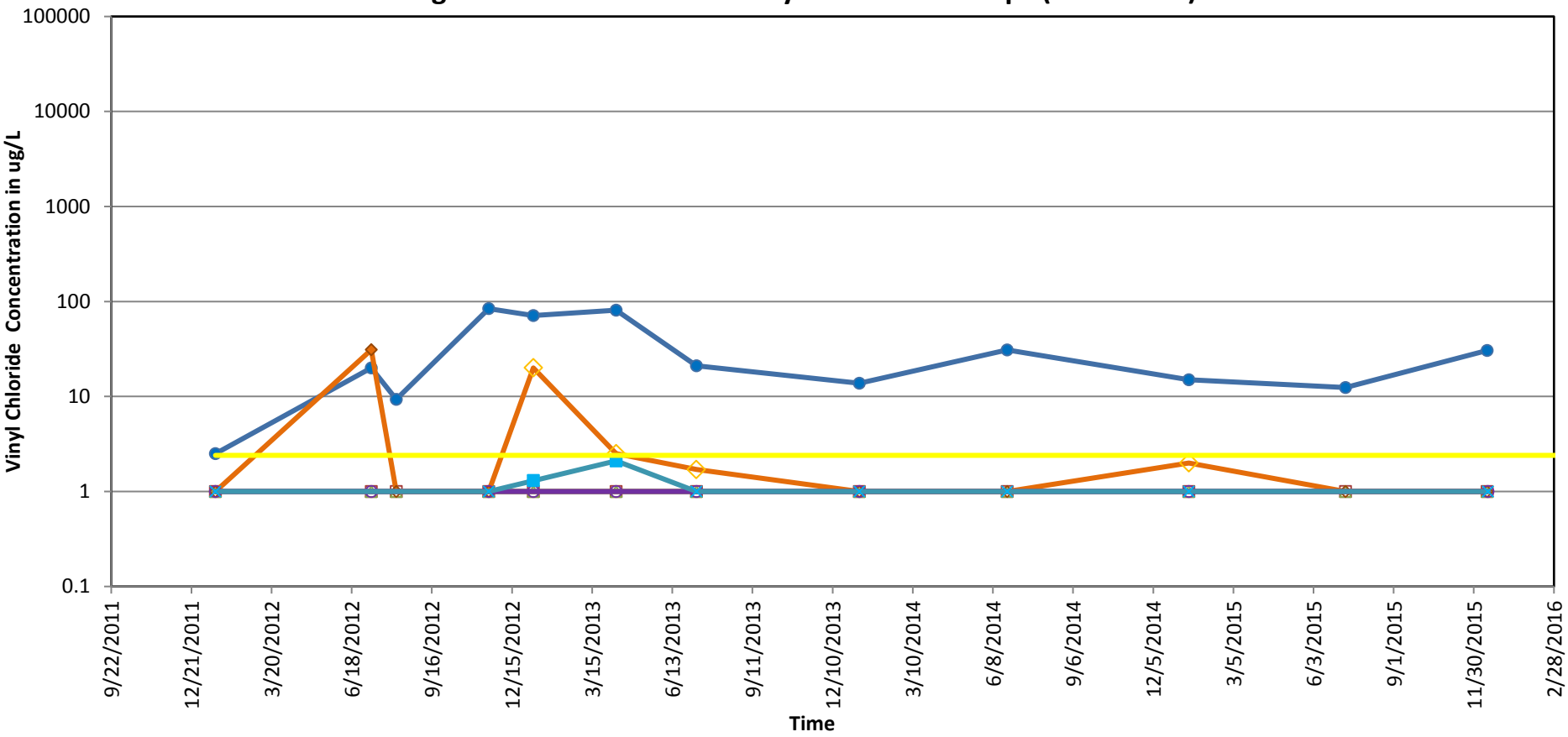


Figure 13A: TCE in Groundwater (Distance vs Concentration) - Intermediate Water-Bearing Zone

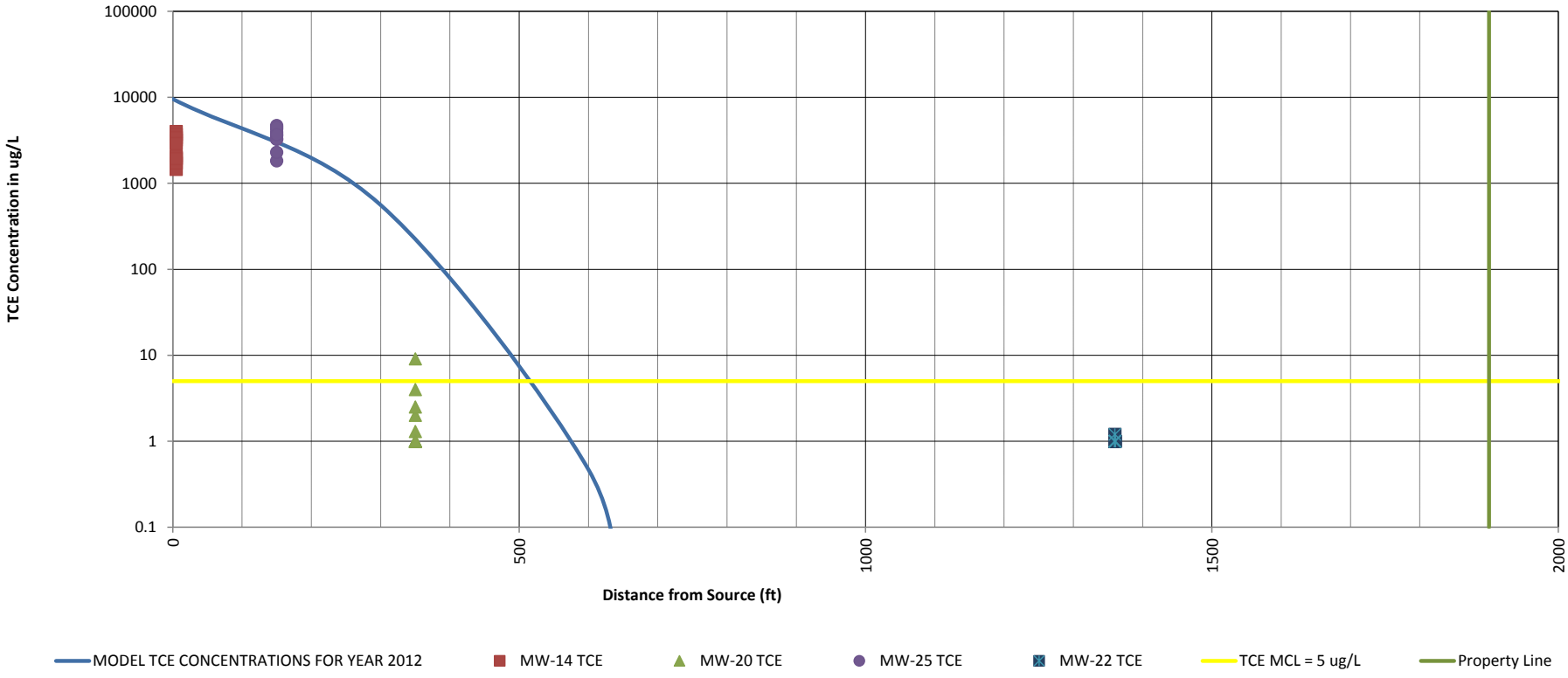


Figure 13B: TCE in Groundwater (Distance vs Concentration) - Intermediate Water-Bearing Zone 2015

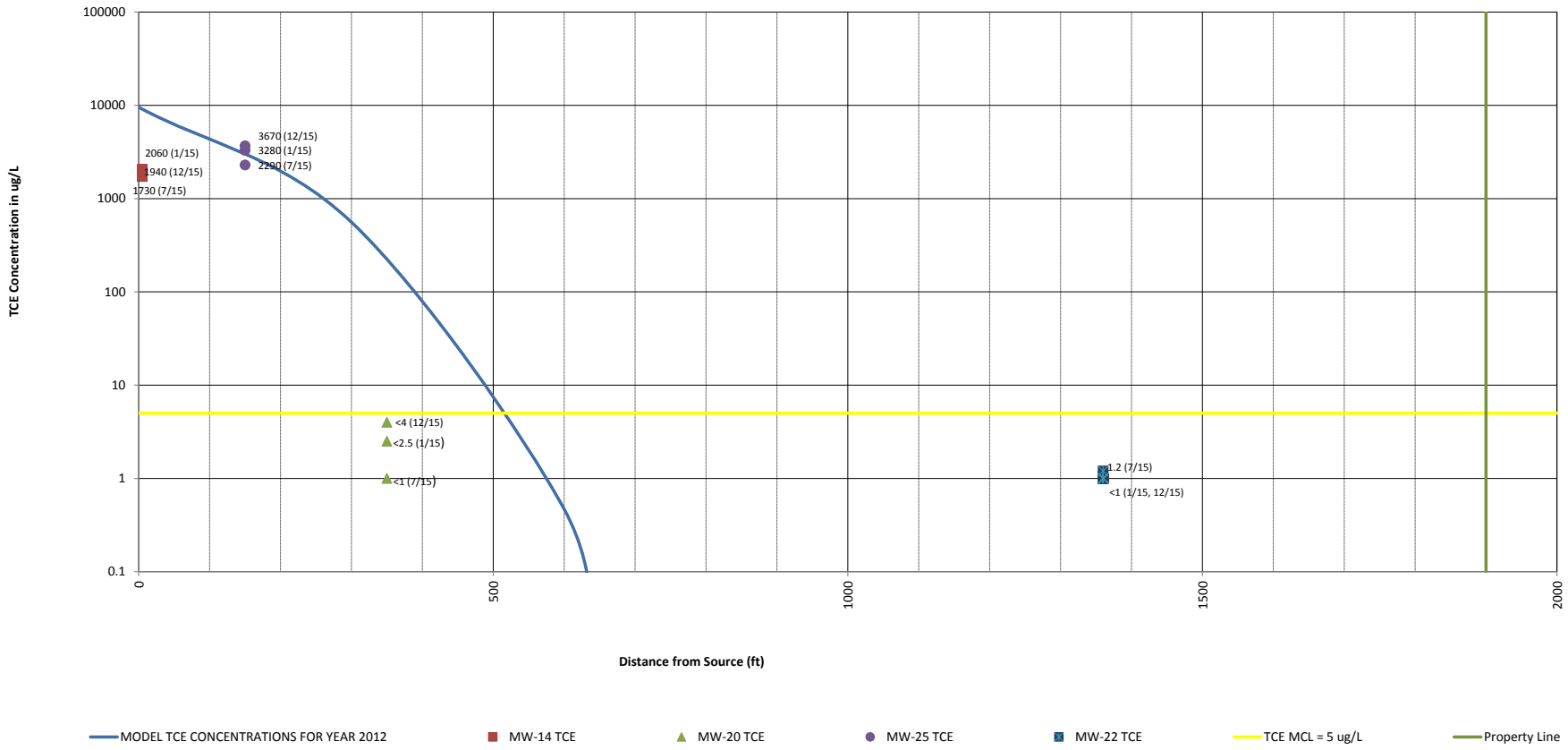


Figure 14A: Cis-1,2-Dichloroethene in Groundwater (Distance vs Concentration) - Intermediate Water- Bearing Zone

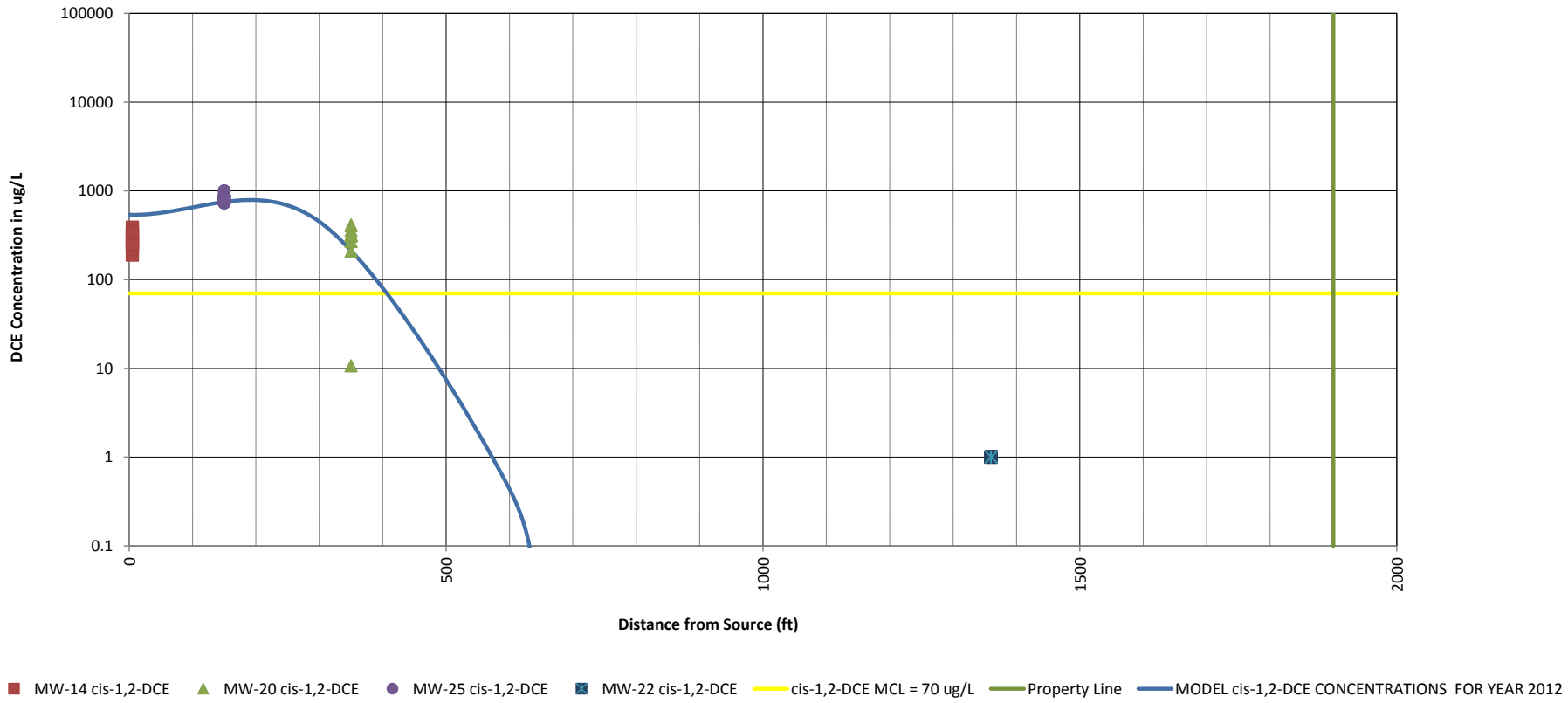


Figure 14B: Cis-1,2-Dichloroethene in Groundwater (Distance vs Concentration) - Intermediate Water-Bearing Zone 2015

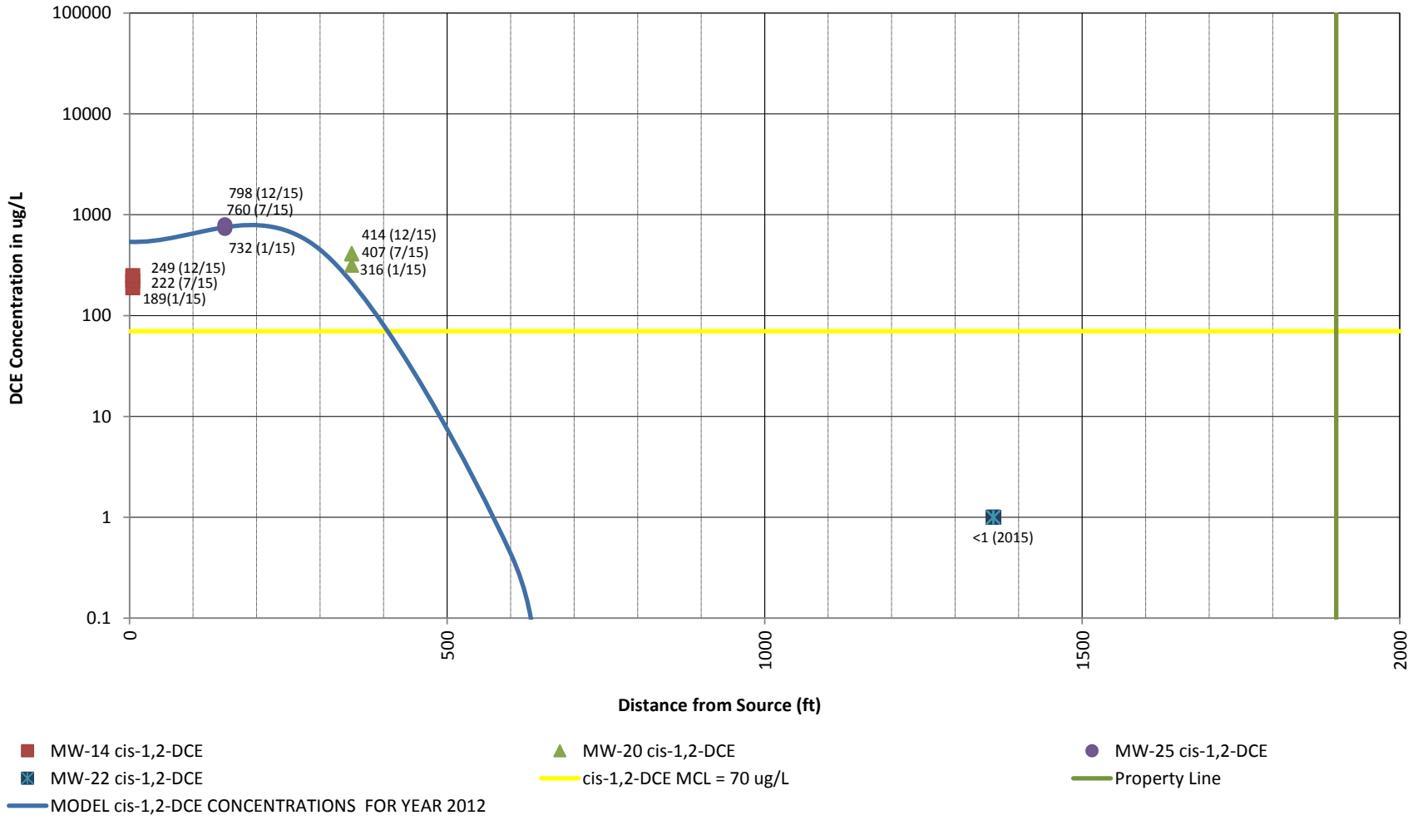


Figure 15A: Vinyl Chloride in Groundwater (Distance vs Concentration) - Intermediate Water-Bearing Zone

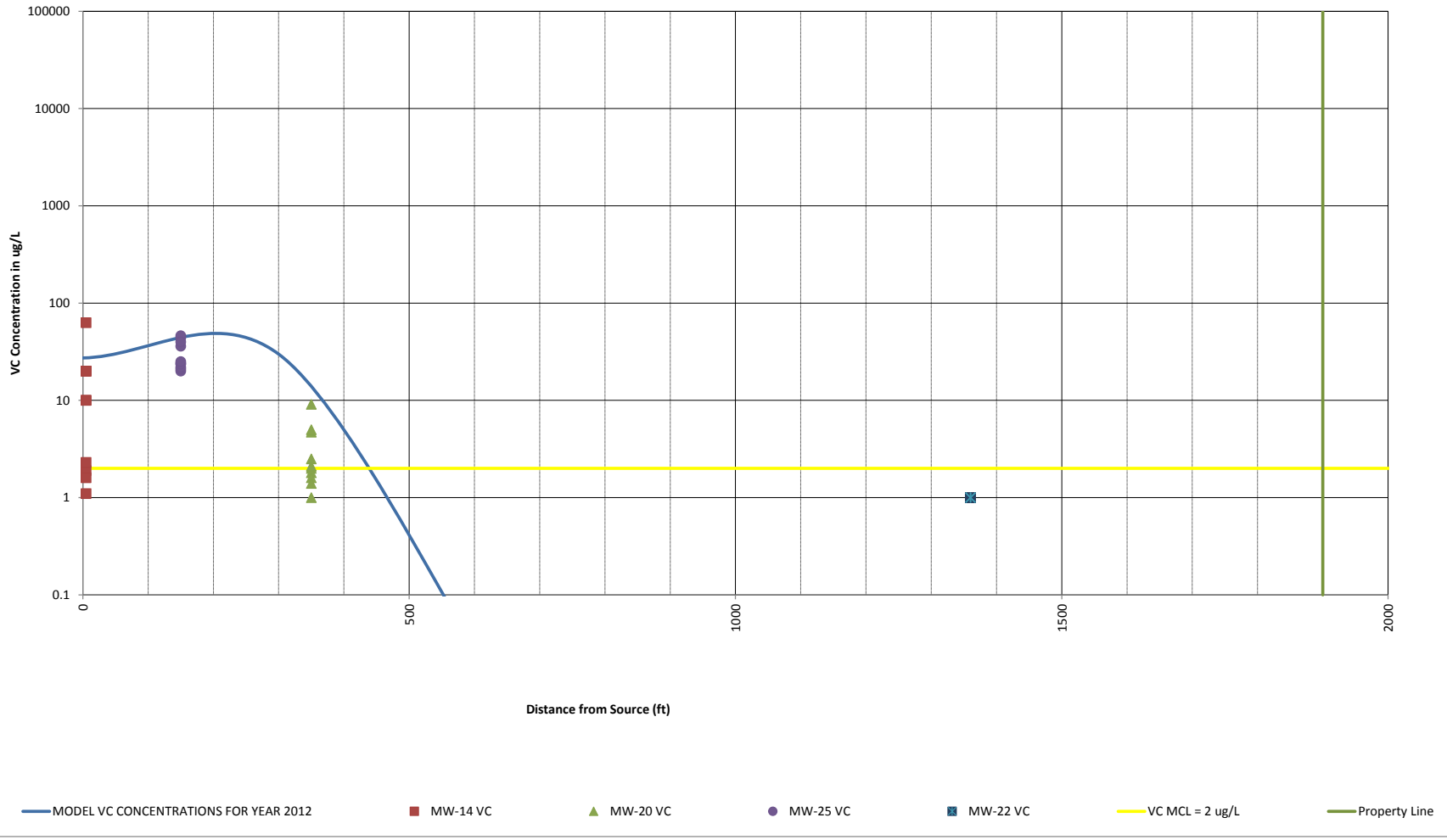
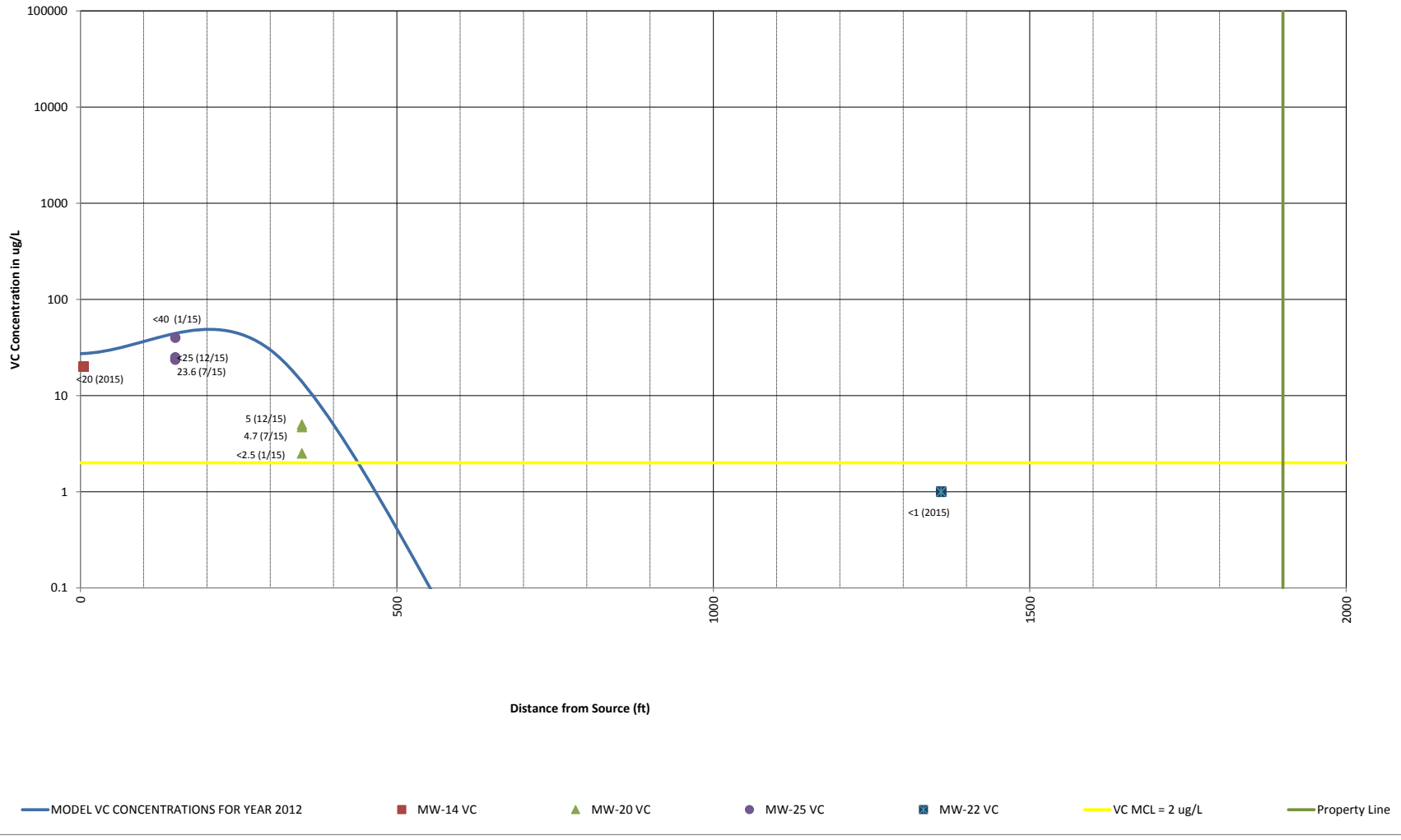


Figure 15B: Vinyl Chloride in Groundwater (Distance vs Concentration) - Intermediate Water-Bearing Zone 2015



APPENDIX A

LABORATORY REPORTS AND FIELD SAMPLING FORMS FOR DECEMBER 2015 GROUNDWATER, SEEP, AND SURFACE WATER SAMPLING EVENTS

Pace Analytical Services Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

June 10, 2016

Stipulation of Approval for Commercial Laboratory

According to Georgia State Law (O.C.G.A. 12-2-9) Commercial Rules for Commercial Laboratory Accreditation, any person submitting data to EPD prepared by a commercial laboratory shall stipulate that the laboratory is approved (Chapter 391-3-26-.05). The following information is provided as requested.

Laboratory	Pace Analytical Services, Inc. 9800 Kincey Ave, Suite 100 Huntersville, NC 28078 (704) 875-9092
Accredited By:	Commonwealth of Virginia, Department of General Services; Accrediting NELAP Authority
Accreditation ID:	Laboratory ID#: 460221
Scope:	Clean Water Act – Extractable Organics, Pesticides, PCBs, Volatile Oraganics RCRA/CERCLA – Extractable Organics, Pesticides, PCBs, Volatile Organics
Effective:	June 15, 2015
Expires:	June 14, 2016

Any question regarding this stipulation of approval may be directed to Pace Analytical at 704 - 875 - 9092. Thank you for your business and please do not hesitate to contact us if we can be of further assistance.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 06, 2015

Rhonda Quinn
Amec Foster Wheeler
1075 Big Shanty Rd
Suite 100
Kennesaw, GA 30144

RE: Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Dear Rhonda Quinn:
Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Greg Wrenn, Amec Foster Wheeler

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92270034001	**MW-22**	Water	09/30/15 16:00	10/01/15 09:30
92270034002	**TRIP**	Water	09/30/15 00:00	10/01/15 09:30

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92270034001	**MW-22**	EPA 8260	NB	61	PASI-C
92270034002	**TRIP**	EPA 8260	NB	61	PASI-C

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Huntersville, NC 28078
(704)875-9092

PROJECT NARRATIVE

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: October 06, 2015

General Information:
2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/33642

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1573736)
  - 1,4-Dioxane (p-Dioxane)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/33629

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92270045002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1573091)
  - Bromomethane

QC Batch: MSV/33642

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92270034001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1573737)
  - 1,4-Dioxane (p-Dioxane)

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

PROJECT NARRATIVE

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: October 06, 2015

QC Batch: MSV/33642

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92270034001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1573737)
  - Hexachloro-1,3-butadiene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: MSV/33629

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 1573092)
  - 1,3,5-Trimethylbenzene
  - Isopropylbenzene (Cumene)

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Sample: MW-22 **Lab ID: 92270034001** Collected: 09/30/15 16:00 Received: 10/01/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		10/03/15 04:52	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		10/03/15 04:52	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/03/15 04:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/03/15 04:52	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/03/15 04:52	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/03/15 04:52	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		10/03/15 04:52	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		10/03/15 04:52	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		10/03/15 04:52	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/03/15 04:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/03/15 04:52	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/03/15 04:52	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/03/15 04:52	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/03/15 04:52	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		10/03/15 04:52	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		10/03/15 04:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		10/03/15 04:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/03/15 04:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/03/15 04:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/03/15 04:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/03/15 04:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		10/03/15 04:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/03/15 04:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		10/03/15 04:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/03/15 04:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		10/03/15 04:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/03/15 04:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/03/15 04:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/03/15 04:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/03/15 04:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		10/03/15 04:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		10/03/15 04:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		10/03/15 04:52	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		10/03/15 04:52	123-91-1	L3,M0
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/03/15 04:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		10/03/15 04:52	87-68-3	M1
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		10/03/15 04:52	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		10/03/15 04:52	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		10/03/15 04:52	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		10/03/15 04:52	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		10/03/15 04:52	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		10/03/15 04:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/03/15 04:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/03/15 04:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/03/15 04:52	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		10/03/15 04:52	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Sample: MW-22 **Lab ID: 92270034001** Collected: 09/30/15 16:00 Received: 10/01/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		10/03/15 04:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		10/03/15 04:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/03/15 04:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/03/15 04:52	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/03/15 04:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/03/15 04:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/03/15 04:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		10/03/15 04:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		10/03/15 04:52	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/03/15 04:52	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		10/03/15 04:52	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		10/03/15 04:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		10/03/15 04:52	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		10/03/15 04:52	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/03/15 04:52	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Sample: TRIP **Lab ID: 92270034002** Collected: 09/30/15 00:00 Received: 10/01/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		10/02/15 15:17	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		10/02/15 15:17	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/02/15 15:17	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/02/15 15:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/02/15 15:17	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/02/15 15:17	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		10/02/15 15:17	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		10/02/15 15:17	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		10/02/15 15:17	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/02/15 15:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/02/15 15:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/02/15 15:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/02/15 15:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/02/15 15:17	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		10/02/15 15:17	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		10/02/15 15:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		10/02/15 15:17	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/02/15 15:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/02/15 15:17	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/02/15 15:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/02/15 15:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		10/02/15 15:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/02/15 15:17	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		10/02/15 15:17	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/02/15 15:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		10/02/15 15:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/02/15 15:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/02/15 15:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/02/15 15:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/02/15 15:17	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		10/02/15 15:17	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		10/02/15 15:17	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		10/02/15 15:17	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		10/02/15 15:17	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/02/15 15:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		10/02/15 15:17	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		10/02/15 15:17	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		10/02/15 15:17	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		10/02/15 15:17	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		10/02/15 15:17	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		10/02/15 15:17	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		10/02/15 15:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/02/15 15:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/02/15 15:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/02/15 15:17	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		10/02/15 15:17	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Sample: TRIP **Lab ID: 92270034002** Collected: 09/30/15 00:00 Received: 10/01/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		10/02/15 15:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		10/02/15 15:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/02/15 15:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/02/15 15:17	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/02/15 15:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/02/15 15:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/02/15 15:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		10/02/15 15:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		10/02/15 15:17	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/02/15 15:17	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		10/02/15 15:17	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		10/02/15 15:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		10/02/15 15:17	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		10/02/15 15:17	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/02/15 15:17	2037-26-5	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

QC Batch: MSV/33629
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92270034002

METHOD BLANK: 1573089
Matrix: Water
Associated Lab Samples: 92270034002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1,1-Trichloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1-Dichloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1-Dichloroethene	ug/L	ND	1.0	10/02/15 11:54	
1,1-Dichloropropene	ug/L	ND	1.0	10/02/15 11:54	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,2,3-Trichloropropane	ug/L	ND	1.0	10/02/15 11:54	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	10/02/15 11:54	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dichloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dichloropropane	ug/L	ND	1.0	10/02/15 11:54	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	10/02/15 11:54	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,3-Dichloropropane	ug/L	ND	1.0	10/02/15 11:54	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	10/02/15 11:54	
2,2-Dichloropropane	ug/L	ND	1.0	10/02/15 11:54	
2-Chlorotoluene	ug/L	ND	1.0	10/02/15 11:54	
4-Chlorotoluene	ug/L	ND	1.0	10/02/15 11:54	
Benzene	ug/L	ND	1.0	10/02/15 11:54	
Bromobenzene	ug/L	ND	1.0	10/02/15 11:54	
Bromochloromethane	ug/L	ND	1.0	10/02/15 11:54	
Bromodichloromethane	ug/L	ND	1.0	10/02/15 11:54	
Bromoform	ug/L	ND	1.0	10/02/15 11:54	
Bromomethane	ug/L	ND	2.0	10/02/15 11:54	
Carbon tetrachloride	ug/L	ND	1.0	10/02/15 11:54	
Chlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
Chloroethane	ug/L	ND	1.0	10/02/15 11:54	
Chloroform	ug/L	ND	1.0	10/02/15 11:54	
Chloromethane	ug/L	ND	1.0	10/02/15 11:54	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/02/15 11:54	
Dibromochloromethane	ug/L	ND	1.0	10/02/15 11:54	
Dibromomethane	ug/L	ND	1.0	10/02/15 11:54	
Dichlorodifluoromethane	ug/L	ND	1.0	10/02/15 11:54	
Ethylbenzene	ug/L	ND	1.0	10/02/15 11:54	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/02/15 11:54	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

METHOD BLANK: 1573089 Matrix: Water
Associated Lab Samples: 92270034002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/02/15 11:54	
m&p-Xylene	ug/L	ND	2.0	10/02/15 11:54	
Methylene Chloride	ug/L	ND	2.0	10/02/15 11:54	
n-Butylbenzene	ug/L	ND	1.0	10/02/15 11:54	
n-Propylbenzene	ug/L	ND	1.0	10/02/15 11:54	
Naphthalene	ug/L	ND	1.0	10/02/15 11:54	
o-Xylene	ug/L	ND	1.0	10/02/15 11:54	
p-Isopropyltoluene	ug/L	ND	1.0	10/02/15 11:54	
sec-Butylbenzene	ug/L	ND	1.0	10/02/15 11:54	
Styrene	ug/L	ND	1.0	10/02/15 11:54	
tert-Butylbenzene	ug/L	ND	1.0	10/02/15 11:54	
Tetrachloroethene	ug/L	ND	1.0	10/02/15 11:54	
Toluene	ug/L	ND	1.0	10/02/15 11:54	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/02/15 11:54	
Trichloroethene	ug/L	ND	1.0	10/02/15 11:54	
Trichlorofluoromethane	ug/L	ND	1.0	10/02/15 11:54	
Vinyl chloride	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dichloroethane-d4 (S)	%	101	70-130	10/02/15 11:54	
4-Bromofluorobenzene (S)	%	103	70-130	10/02/15 11:54	
Toluene-d8 (S)	%	100	70-130	10/02/15 11:54	

LABORATORY CONTROL SAMPLE: 1573090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.2	96	70-130	
1,1,1-Trichloroethane	ug/L	50	54.4	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.5	111	70-130	
1,1,2-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1-Dichloroethane	ug/L	50	54.3	109	70-130	
1,1-Dichloroethene	ug/L	50	51.5	103	70-132	
1,1-Dichloropropene	ug/L	50	54.1	108	70-130	
1,2,3-Trichlorobenzene	ug/L	50	45.7	91	70-135	
1,2,3-Trichloropropane	ug/L	50	49.8	100	70-130	
1,2,4-Trichlorobenzene	ug/L	50	49.0	98	70-134	
1,2,4-Trimethylbenzene	ug/L	50	52.5	105	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.9	94	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	50.2	100	70-130	
1,2-Dichloroethane	ug/L	50	47.1	94	70-130	
1,2-Dichloropropane	ug/L	50	52.0	104	70-130	
1,3,5-Trimethylbenzene	ug/L	50	54.3	109	70-130	
1,3-Dichlorobenzene	ug/L	50	53.4	107	70-130	
1,3-Dichloropropane	ug/L	50	49.8	100	70-130	
1,4-Dichlorobenzene	ug/L	50	50.9	102	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

LABORATORY CONTROL SAMPLE: 1573090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	1200	120	71-125	
2,2-Dichloropropane	ug/L	50	57.0	114	58-145	
2-Chlorotoluene	ug/L	50	48.7	97	70-130	
4-Chlorotoluene	ug/L	50	52.2	104	70-130	
Benzene	ug/L	50	52.0	104	70-130	
Bromobenzene	ug/L	50	51.7	103	70-130	
Bromochloromethane	ug/L	50	55.9	112	70-130	
Bromodichloromethane	ug/L	50	52.2	104	70-130	
Bromoform	ug/L	50	43.9	88	70-130	
Bromomethane	ug/L	50	31.2	62	54-130	
Carbon tetrachloride	ug/L	50	53.5	107	70-132	
Chlorobenzene	ug/L	50	51.2	102	70-130	
Chloroethane	ug/L	50	41.4	83	64-134	
Chloroform	ug/L	50	52.7	105	70-130	
Chloromethane	ug/L	50	53.9	108	64-130	
cis-1,2-Dichloroethene	ug/L	50	55.3	111	70-131	
Dibromochloromethane	ug/L	50	46.6	93	70-130	
Dibromomethane	ug/L	50	50.3	101	70-131	
Dichlorodifluoromethane	ug/L	50	54.3	109	56-130	
Ethylbenzene	ug/L	50	52.5	105	70-130	
Hexachloro-1,3-butadiene	ug/L	50	64.6	129	70-130	
Isopropylbenzene (Cumene)	ug/L	50	55.6	111	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methylene Chloride	ug/L	50	54.9	110	63-130	
n-Butylbenzene	ug/L	50	56.4	113	70-130	
n-Propylbenzene	ug/L	50	53.6	107	70-130	
Naphthalene	ug/L	50	45.6	91	70-138	
o-Xylene	ug/L	50	50.4	101	70-130	
p-Isopropyltoluene	ug/L	50	54.4	109	70-130	
sec-Butylbenzene	ug/L	50	57.3	115	70-130	
Styrene	ug/L	50	51.1	102	70-130	
tert-Butylbenzene	ug/L	50	44.8	90	70-130	
Tetrachloroethene	ug/L	50	48.1	96	70-130	
Toluene	ug/L	50	50.1	100	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.6	105	70-130	
Trichloroethene	ug/L	50	47.2	94	70-130	
Trichlorofluoromethane	ug/L	50	49.6	99	62-133	
Vinyl chloride	ug/L	50	56.7	113	50-150	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			97	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

MATRIX SPIKE SAMPLE: 1573091

Parameter	Units	92270045002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	2000	2010	100	70-130	
1,1,1-Trichloroethane	ug/L	ND	2000	2330	116	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	2000	2160	108	70-130	
1,1,2-Trichloroethane	ug/L	ND	2000	2120	106	70-130	
1,1-Dichloroethane	ug/L	ND	2000	2340	117	70-130	
1,1-Dichloroethene	ug/L	ND	2000	2300	115	70-166	
1,1-Dichloropropene	ug/L	ND	2000	2370	119	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	2000	1630	81	70-130	
1,2,3-Trichloropropane	ug/L	ND	2000	2060	103	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	2000	1920	96	70-130	
1,2,4-Trimethylbenzene	ug/L	1430	2000	3610	109	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	2000	1550	77	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	2000	2080	104	70-130	
1,2-Dichlorobenzene	ug/L	ND	2000	2000	100	70-130	
1,2-Dichloroethane	ug/L	ND	2000	2050	102	70-130	
1,2-Dichloropropane	ug/L	ND	2000	2250	112	70-130	
1,3,5-Trimethylbenzene	ug/L	368	2000	2710	117	70-130	
1,3-Dichlorobenzene	ug/L	ND	2000	2190	109	70-130	
1,3-Dichloropropane	ug/L	ND	2000	2100	105	70-130	
1,4-Dichlorobenzene	ug/L	ND	2000	2070	104	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	40000	43400	109	70-130	
2,2-Dichloropropane	ug/L	ND	2000	2180	109	70-130	
2-Chlorotoluene	ug/L	ND	2000	2310	116	70-130	
4-Chlorotoluene	ug/L	ND	2000	2170	108	70-130	
Benzene	ug/L	652	2000	2860	110	70-148	
Bromobenzene	ug/L	ND	2000	2190	109	70-130	
Bromochloromethane	ug/L	ND	2000	2390	120	70-130	
Bromodichloromethane	ug/L	ND	2000	2100	105	70-130	
Bromoform	ug/L	ND	2000	1580	79	70-130	
Bromomethane	ug/L	ND	2000	1000	50	70-130	M1
Carbon tetrachloride	ug/L	ND	2000	2230	112	70-130	
Chlorobenzene	ug/L	ND	2000	2130	107	70-146	
Chloroethane	ug/L	ND	2000	1900	95	70-130	
Chloroform	ug/L	ND	2000	2230	112	70-130	
Chloromethane	ug/L	ND	2000	2500	125	70-130	
cis-1,2-Dichloroethene	ug/L	ND	2000	2310	116	70-130	
Dibromochloromethane	ug/L	ND	2000	1750	87	70-130	
Dibromomethane	ug/L	ND	2000	2170	108	70-130	
Dichlorodifluoromethane	ug/L	ND	2000	2530	126	70-130	
Ethylbenzene	ug/L	1070	2000	3280	111	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	2000	2440	122	70-130	
Isopropylbenzene (Cumene)	ug/L	54.0J	2000	2420	118	70-130	
m&p-Xylene	ug/L	3680	4000	7930	106	70-130	
Methylene Chloride	ug/L	ND	2000	2220	111	70-130	
n-Butylbenzene	ug/L	ND	2000	2230	110	70-130	
n-Propylbenzene	ug/L	122	2000	2450	116	70-130	
Naphthalene	ug/L	348	2000	1920	78	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

MATRIX SPIKE SAMPLE: 1573091

Parameter	Units	92270045002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	1400	2000	3480	104	70-130	
p-Isopropyltoluene	ug/L	ND	2000	2240	111	70-130	
sec-Butylbenzene	ug/L	ND	2000	2400	120	70-130	
Styrene	ug/L	ND	2000	2040	102	70-130	
tert-Butylbenzene	ug/L	ND	2000	1920	96	70-130	
Tetrachloroethene	ug/L	ND	2000	2020	101	70-130	
Toluene	ug/L	9210	2000	10700	75	70-155	
trans-1,2-Dichloroethene	ug/L	ND	2000	2300	115	70-130	
Trichloroethene	ug/L	ND	2000	2040	102	69-151	
Trichlorofluoromethane	ug/L	ND	2000	2330	117	70-130	
Vinyl chloride	ug/L	ND	2000	2480	124	70-130	
1,2-Dichloroethane-d4 (S)	%				102	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1573092

Parameter	Units	92270045004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	671	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	1520	1540	2	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	1370	405	109	30	D6
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	558	583	4	30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

SAMPLE DUPLICATE: 1573092

Parameter	Units	92270045004 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	36.5J	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	1310	1350	3	30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	335	102	107	30	D6
m&p-Xylene	ug/L	4090	4250	4	30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	88.4J	ND		30	
n-Propylbenzene	ug/L	172	167	3	30	
Naphthalene	ug/L	426	419	2	30	
o-Xylene	ug/L	1850	1890	2	30	
p-Isopropyltoluene	ug/L	50.2J	ND		30	
sec-Butylbenzene	ug/L	462	ND		30	
Styrene	ug/L	50.5J	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	10700	11100	3	30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	110	111	1		
4-Bromofluorobenzene (S)	%	106	105	1		
Toluene-d8 (S)	%	99	99	0		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

QC Batch: MSV/33642
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92270034001

METHOD BLANK: 1573735
Matrix: Water
Associated Lab Samples: 92270034001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1,1-Trichloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1-Dichloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1-Dichloroethene	ug/L	ND	1.0	10/03/15 00:20	
1,1-Dichloropropene	ug/L	ND	1.0	10/03/15 00:20	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,2,3-Trichloropropane	ug/L	ND	1.0	10/03/15 00:20	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	10/03/15 00:20	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dichloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dichloropropane	ug/L	ND	1.0	10/03/15 00:20	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	10/03/15 00:20	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,3-Dichloropropane	ug/L	ND	1.0	10/03/15 00:20	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	10/03/15 00:20	
2,2-Dichloropropane	ug/L	ND	1.0	10/03/15 00:20	
2-Chlorotoluene	ug/L	ND	1.0	10/03/15 00:20	
4-Chlorotoluene	ug/L	ND	1.0	10/03/15 00:20	
Benzene	ug/L	ND	1.0	10/03/15 00:20	
Bromobenzene	ug/L	ND	1.0	10/03/15 00:20	
Bromochloromethane	ug/L	ND	1.0	10/03/15 00:20	
Bromodichloromethane	ug/L	ND	1.0	10/03/15 00:20	
Bromoform	ug/L	ND	1.0	10/03/15 00:20	
Bromomethane	ug/L	ND	2.0	10/03/15 00:20	
Carbon tetrachloride	ug/L	ND	1.0	10/03/15 00:20	
Chlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
Chloroethane	ug/L	ND	1.0	10/03/15 00:20	
Chloroform	ug/L	ND	1.0	10/03/15 00:20	
Chloromethane	ug/L	ND	1.0	10/03/15 00:20	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/03/15 00:20	
Dibromochloromethane	ug/L	ND	1.0	10/03/15 00:20	
Dibromomethane	ug/L	ND	1.0	10/03/15 00:20	
Dichlorodifluoromethane	ug/L	ND	1.0	10/03/15 00:20	
Ethylbenzene	ug/L	ND	1.0	10/03/15 00:20	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/03/15 00:20	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

METHOD BLANK: 1573735 Matrix: Water
Associated Lab Samples: 92270034001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/03/15 00:20	
m&p-Xylene	ug/L	ND	2.0	10/03/15 00:20	
Methylene Chloride	ug/L	ND	2.0	10/03/15 00:20	
n-Butylbenzene	ug/L	ND	1.0	10/03/15 00:20	
n-Propylbenzene	ug/L	ND	1.0	10/03/15 00:20	
Naphthalene	ug/L	ND	1.0	10/03/15 00:20	
o-Xylene	ug/L	ND	1.0	10/03/15 00:20	
p-Isopropyltoluene	ug/L	ND	1.0	10/03/15 00:20	
sec-Butylbenzene	ug/L	ND	1.0	10/03/15 00:20	
Styrene	ug/L	ND	1.0	10/03/15 00:20	
tert-Butylbenzene	ug/L	ND	1.0	10/03/15 00:20	
Tetrachloroethene	ug/L	ND	1.0	10/03/15 00:20	
Toluene	ug/L	ND	1.0	10/03/15 00:20	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/03/15 00:20	
Trichloroethene	ug/L	ND	1.0	10/03/15 00:20	
Trichlorofluoromethane	ug/L	ND	1.0	10/03/15 00:20	
Vinyl chloride	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dichloroethane-d4 (S)	%	108	70-130	10/03/15 00:20	
4-Bromofluorobenzene (S)	%	96	70-130	10/03/15 00:20	
Toluene-d8 (S)	%	100	70-130	10/03/15 00:20	

LABORATORY CONTROL SAMPLE: 1573736

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	45.2	90	70-130	
1,1,1-Trichloroethane	ug/L	50	50.0	100	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	54.3	109	70-130	
1,1,2-Trichloroethane	ug/L	50	48.7	97	70-130	
1,1-Dichloroethane	ug/L	50	50.8	102	70-130	
1,1-Dichloroethene	ug/L	50	47.3	95	70-132	
1,1-Dichloropropene	ug/L	50	49.6	99	70-130	
1,2,3-Trichlorobenzene	ug/L	50	43.5	87	70-135	
1,2,3-Trichloropropane	ug/L	50	48.3	97	70-130	
1,2,4-Trichlorobenzene	ug/L	50	46.6	93	70-134	
1,2,4-Trimethylbenzene	ug/L	50	49.8	100	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	45.6	91	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.3	101	70-130	
1,2-Dichlorobenzene	ug/L	50	48.8	98	70-130	
1,2-Dichloroethane	ug/L	50	45.7	91	70-130	
1,2-Dichloropropane	ug/L	50	50.4	101	70-130	
1,3,5-Trimethylbenzene	ug/L	50	51.1	102	70-130	
1,3-Dichlorobenzene	ug/L	50	49.4	99	70-130	
1,3-Dichloropropane	ug/L	50	48.4	97	70-130	
1,4-Dichlorobenzene	ug/L	50	48.9	98	70-130	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

LABORATORY CONTROL SAMPLE: 1573736

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	1390	139	71-125	L0
2,2-Dichloropropane	ug/L	50	48.9	98	58-145	
2-Chlorotoluene	ug/L	50	45.6	91	70-130	
4-Chlorotoluene	ug/L	50	48.8	98	70-130	
Benzene	ug/L	50	50.3	101	70-130	
Bromobenzene	ug/L	50	49.4	99	70-130	
Bromochloromethane	ug/L	50	54.2	108	70-130	
Bromodichloromethane	ug/L	50	50.2	100	70-130	
Bromoform	ug/L	50	40.8	82	70-130	
Bromomethane	ug/L	50	33.7	67	54-130	
Carbon tetrachloride	ug/L	50	48.5	97	70-132	
Chlorobenzene	ug/L	50	48.0	96	70-130	
Chloroethane	ug/L	50	36.1	72	64-134	
Chloroform	ug/L	50	48.8	98	70-130	
Chloromethane	ug/L	50	49.7	99	64-130	
cis-1,2-Dichloroethene	ug/L	50	51.1	102	70-131	
Dibromochloromethane	ug/L	50	44.2	88	70-130	
Dibromomethane	ug/L	50	50.0	100	70-131	
Dichlorodifluoromethane	ug/L	50	47.2	94	56-130	
Ethylbenzene	ug/L	50	48.7	97	70-130	
Hexachloro-1,3-butadiene	ug/L	50	57.9	116	70-130	
Isopropylbenzene (Cumene)	ug/L	50	52.1	104	70-130	
m&p-Xylene	ug/L	100	96.5	96	70-130	
Methylene Chloride	ug/L	50	52.2	104	63-130	
n-Butylbenzene	ug/L	50	50.1	100	70-130	
n-Propylbenzene	ug/L	50	50.0	100	70-130	
Naphthalene	ug/L	50	44.6	89	70-138	
o-Xylene	ug/L	50	47.3	95	70-130	
p-Isopropyltoluene	ug/L	50	50.4	101	70-130	
sec-Butylbenzene	ug/L	50	52.5	105	70-130	
Styrene	ug/L	50	48.8	98	70-130	
tert-Butylbenzene	ug/L	50	41.6	83	70-130	
Tetrachloroethene	ug/L	50	44.3	89	70-130	
Toluene	ug/L	50	48.0	96	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.8	98	70-130	
Trichloroethene	ug/L	50	44.6	89	70-130	
Trichlorofluoromethane	ug/L	50	43.5	87	62-133	
Vinyl chloride	ug/L	50	51.7	103	50-150	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			99	70-130	

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(704)875-9092

QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

MATRIX SPIKE SAMPLE: 1573737

Parameter	Units	92270034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20.0	100	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	23.2	116	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	22.0	110	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	20.5	103	70-130	
1,1-Dichloroethane	ug/L	ND	20	23.7	118	70-130	
1,1-Dichloroethene	ug/L	ND	20	22.5	112	70-166	
1,1-Dichloropropene	ug/L	ND	20	24.0	120	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	17.3	86	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	19.5	98	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	19.3	97	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	22.2	111	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	16.3	82	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	21.0	105	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.8	104	70-130	
1,2-Dichloroethane	ug/L	ND	20	19.5	97	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.4	112	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	23.6	118	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	21.9	109	70-130	
1,3-Dichloropropane	ug/L	ND	20	20.8	104	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	21.5	108	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	593	148	70-130	M0
2,2-Dichloropropane	ug/L	ND	20	22.1	111	70-130	
2-Chlorotoluene	ug/L	ND	20	21.0	105	70-130	
4-Chlorotoluene	ug/L	ND	20	21.7	109	70-130	
Benzene	ug/L	ND	20	22.9	115	70-148	
Bromobenzene	ug/L	ND	20	22.4	112	70-130	
Bromochloromethane	ug/L	ND	20	23.6	118	70-130	
Bromodichloromethane	ug/L	ND	20	20.9	105	70-130	
Bromoform	ug/L	ND	20	15.8	79	70-130	
Bromomethane	ug/L	ND	20	18.1	90	70-130	
Carbon tetrachloride	ug/L	ND	20	21.9	109	70-130	
Chlorobenzene	ug/L	ND	20	21.6	108	70-146	
Chloroethane	ug/L	ND	20	17.9	89	70-130	
Chloroform	ug/L	ND	20	22.4	112	70-130	
Chloromethane	ug/L	ND	20	23.4	117	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	23.6	118	70-130	
Dibromochloromethane	ug/L	ND	20	17.7	88	70-130	
Dibromomethane	ug/L	ND	20	21.7	108	70-130	
Dichlorodifluoromethane	ug/L	ND	20	23.3	116	70-130	
Ethylbenzene	ug/L	ND	20	22.3	111	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	27.7	138	70-130	M1
Isopropylbenzene (Cumene)	ug/L	ND	20	23.0	115	70-130	
m&p-Xylene	ug/L	ND	40	42.8	107	70-130	
Methylene Chloride	ug/L	ND	20	20.0	100	70-130	
n-Butylbenzene	ug/L	ND	20	22.8	114	70-130	
n-Propylbenzene	ug/L	ND	20	23.6	118	70-130	
Naphthalene	ug/L	ND	20	17.6	88	70-130	

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(704)875-9092

QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

MATRIX SPIKE SAMPLE: 1573737

Parameter	Units	92270034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	20.5	102	70-130	
p-Isopropyltoluene	ug/L	ND	20	23.2	116	70-130	
sec-Butylbenzene	ug/L	ND	20	24.5	122	70-130	
Styrene	ug/L	ND	20	20.8	104	70-130	
tert-Butylbenzene	ug/L	ND	20	19.4	97	70-130	
Tetrachloroethene	ug/L	ND	20	20.5	103	70-130	
Toluene	ug/L	ND	20	21.9	110	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	22.8	114	70-130	
Trichloroethene	ug/L	ND	20	20.6	103	69-151	
Trichlorofluoromethane	ug/L	ND	20	22.2	111	70-130	
Vinyl chloride	ug/L	ND	20	25.2	126	70-130	
1,2-Dichloroethane-d4 (S)	%				96	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1573738

Parameter	Units	92269988002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	34.1	34.6	1	30	
1,1-Dichloroethene	ug/L	35.3	38.8	9	30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

SAMPLE DUPLICATE: 1573738

Parameter	Units	92269988002 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	1550	1620	4	30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	2430	2530	4	30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	15.1J		30	
Trichloroethene	ug/L	228	228	0	30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	111	2		
4-Bromofluorobenzene (S)	%	105	103	2		
Toluene-d8 (S)	%	99	100	1		

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QUALIFIERS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92270034001	**MW-22**	EPA 8260	MSV/33642		
92270034002	**TRIP**	EPA 8260	MSV/33629		

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Pace Analytical	Sample Condition Upon Receipt (SCUR)	Page 1 of 2*
	Document Number: F-CHR-CS-003-rev.16	Issuing Authority: Pace Huntersville Quality Office

Client Name: AMEC

* Page 2 of 2 is for Internal Use Only

Courier: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun T1402 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor T1402 No Correction

Corrected Cooler Temp.: 4.0 °C Biological Tissue is Frozen: Yes No (N/A)

Date and Initials of person examining contents: 10-1 JJ

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: JJ Date: 10/1/15

SRF Review: JJ Date: 10/2/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO# : 92270034

92270034

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

2003297

Section A Required Client Information:

Company: AMEC FW
Address: 1075 BIG SHANTY RD #100
KENNESAW, GA 30144
Email To: RHONDA.QUINN@AMEC.COM
Phone: 7704213400 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Ms. RHONDA QUINN
Copy To:
Purchase Order No.:
Project Name: TK LOUISVILLE
Project Number: 6122 09 0322

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 6445-1

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GEORGIA

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Analysis Test: 8260B *	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-22	WT	G	9-30-15	1600				3				X						X		92270034 001
2	TRIP	WT	G						2				X						X		002
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* SITE SPECIFIC VOCs	AMEC FW				10-1	930	6.0	y	n	y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: EVER GUILLEN

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 9-30-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 28, 2015

Rhonda Quinn
Amec Foster Wheeler
1075 Big Shanty Rd
Suite 100
Kennesaw, GA 30144

RE: Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Dear Rhonda Quinn:
Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Greg Wrenn, Amec Foster Wheeler

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CERTIFICATIONS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280507001	**MW-27-121515**	Water	12/15/15 12:14	12/18/15 10:30
92280507002	**MW-28-121515**	Water	12/15/15 12:43	12/18/15 10:30
92280507003	**MW-20-121515**	Water	12/15/15 17:35	12/18/15 10:30
92280507004	**MW-25-121615**	Water	12/16/15 11:52	12/18/15 10:30
92280507005	**MW-19-121615**	Water	12/16/15 11:50	12/18/15 10:30
92280507006	**MW-14-121615**	Water	12/16/15 14:20	12/18/15 10:30
92280507007	**MW-5-121615**	Water	12/16/15 16:00	12/18/15 10:30
92280507008	**DUP-01-121615**	Water	12/16/15 12:00	12/18/15 10:30
92280507009	**MW-22-121515**	Water	12/15/15 11:07	12/18/15 10:30
92280507010	**MASON BRANCH#2-121515**	Water	12/15/15 13:50	12/18/15 10:30
92280507011	**SEEP-H-121515**	Water	12/15/15 14:05	12/18/15 10:30
92280507012	**SEEP-G-121515**	Water	12/15/15 14:20	12/18/15 10:30
92280507013	**SEEP#2-121515**	Water	12/15/15 14:35	12/18/15 10:30
92280507014	**SEEP-B-121515**	Water	12/15/15 14:50	12/18/15 10:30
92280507015	**MW-10-121515**	Water	12/15/15 11:48	12/18/15 10:30
92280507016	**MW-3-121515**	Water	12/15/15 14:30	12/18/15 10:30
92280507017	**SEEP-L-121615**	Water	12/16/15 12:30	12/18/15 10:30
92280507018	**MB#5-121515**	Water	12/16/15 12:55	12/18/15 10:30
92280507019	**MB#16-121615**	Water	12/16/15 13:07	12/18/15 10:30
92280507020	**SEEP-I-121615**	Water	12/16/15 13:20	12/18/15 10:30
92280507021	**MB#3-121615**	Water	12/16/15 13:56	12/18/15 10:30
92280507022	**MB#15-121615**	Water	12/16/15 14:10	12/18/15 10:30
92280507023	**DRUM COMPOSITE-121615**	Water	12/16/15 16:10	12/18/15 10:30
92280507024	**TRIP BLANK**	Water	12/15/15 00:00	12/18/15 10:30

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SAMPLE ANALYTE COUNT

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280507001	**MW-27-121515**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507002	**MW-28-121515**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507003	**MW-20-121515**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507004	**MW-25-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507005	**MW-19-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507006	**MW-14-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507007	**MW-5-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507008	**DUP-01-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507009	**MW-22-121515**	EPA 8260	NB	60	PASI-C
92280507010	**MASON BRANCH#2-121515**	EPA 8260	NB	60	PASI-C
92280507011	**SEEP-H-121515**	EPA 8260	NB	60	PASI-C
92280507012	**SEEP-G-121515**	EPA 8260	NB	60	PASI-C
92280507013	**SEEP#2-121515**	EPA 8260	NB	60	PASI-C
92280507014	**SEEP-B-121515**	EPA 8260	NB	60	PASI-C
92280507015	**MW-10-121515**	EPA 8260	NB	60	PASI-C
92280507016	**MW-3-121515**	EPA 8260	NB	60	PASI-C
92280507017	**SEEP-L-121615**	EPA 8260	NB	60	PASI-C
92280507018	**MB#5-121515**	EPA 8260	NB	60	PASI-C
92280507019	**MB#16-121615**	EPA 8260	NB	60	PASI-C
92280507020	**SEEP-I-121615**	EPA 8260	NB	60	PASI-C
92280507021	**MB#3-121615**	EPA 8260	NB	60	PASI-C
92280507022	**MB#15-121615**	EPA 8260	NB	60	PASI-C
92280507023	**DRUM COMPOSITE-121615**	EPA 8260	NB	60	PASI-C
92280507024	**TRIP BLANK**	EPA 8260	NB	60	PASI-C

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SUMMARY OF DETECTION

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92280507001	**MW-27-121515**					
EPA 8260	1,1-Dichloroethene	2.5	ug/L	1.0	12/22/15 19:19	
EPA 8260	cis-1,2-Dichloroethene	26.6	ug/L	1.0	12/22/15 19:19	
EPA 8260	Trichloroethene	8.2	ug/L	1.0	12/22/15 19:19	
92280507002	**MW-28-121515**					
EPA 8260	1,1-Dichloroethene	3.1	ug/L	1.0	12/22/15 18:45	
EPA 8260	cis-1,2-Dichloroethene	26.6	ug/L	1.0	12/22/15 18:45	
EPA 8260	Trichloroethene	6.3	ug/L	1.0	12/22/15 18:45	
EPA 8260	Vinyl chloride	0.94J	ug/L	1.0	12/22/15 18:45	
92280507003	**MW-20-121515**					
EPA 8260	1,1-Dichloroethene	6.4	ug/L	4.0	12/23/15 07:17	
EPA 8260	cis-1,2-Dichloroethene	414	ug/L	4.0	12/23/15 07:17	
EPA 8260	Vinyl chloride	5.0	ug/L	4.0	12/23/15 07:17	
92280507004	**MW-25-121615**					
EPA 8260	1,1-Dichloroethene	27.0	ug/L	25.0	12/23/15 07:35	
EPA 8260	cis-1,2-Dichloroethene	798	ug/L	25.0	12/23/15 07:35	
EPA 8260	Trichloroethene	3670	ug/L	25.0	12/23/15 07:35	
92280507005	**MW-19-121615**					
EPA 8260	cis-1,2-Dichloroethene	8.0J	ug/L	20.0	12/23/15 07:52	
EPA 8260	Trichloroethene	1720	ug/L	20.0	12/23/15 07:52	
92280507006	**MW-14-121615**					
EPA 8260	1,1-Dichloroethene	45.4	ug/L	20.0	12/23/15 08:09	
EPA 8260	cis-1,2-Dichloroethene	249	ug/L	20.0	12/23/15 08:09	
EPA 8260	Trichloroethene	1940	ug/L	20.0	12/23/15 08:09	
92280507007	**MW-5-121615**					
EPA 8260	Chloroform	2.6	ug/L	2.0	12/24/15 08:21	
EPA 8260	1,1-Dichloroethene	1.6J	ug/L	2.0	12/24/15 08:21	
EPA 8260	cis-1,2-Dichloroethene	1.9J	ug/L	2.0	12/24/15 08:21	
EPA 8260	Hexachloro-1,3-butadiene	4.8	ug/L	2.0	12/24/15 08:21	
EPA 8260	1,1,1,2-Tetrachloroethane	1.3J	ug/L	2.0	12/24/15 08:21	
EPA 8260	Tetrachloroethene	1.3J	ug/L	2.0	12/24/15 08:21	
EPA 8260	Trichloroethene	237	ug/L	2.0	12/24/15 08:21	
92280507008	**DUP-01-121615**					
EPA 8260	Chloroform	2.7	ug/L	2.0	12/24/15 08:55	
EPA 8260	1,1-Dichloroethene	1.9J	ug/L	2.0	12/24/15 08:55	
EPA 8260	cis-1,2-Dichloroethene	1.8J	ug/L	2.0	12/24/15 08:55	
EPA 8260	Hexachloro-1,3-butadiene	4.5	ug/L	2.0	12/24/15 08:55	
EPA 8260	1,1,1,2-Tetrachloroethane	1.7J	ug/L	2.0	12/24/15 08:55	
EPA 8260	Tetrachloroethene	1.2J	ug/L	2.0	12/24/15 08:55	
EPA 8260	Trichloroethene	256	ug/L	2.0	12/24/15 08:55	
92280507010	**MASON BRANCH#2-121515**					
EPA 8260	Chloroethane	0.68J	ug/L	1.0	12/22/15 19:36	
EPA 8260	1,1-Dichloroethane	3.1	ug/L	1.0	12/22/15 19:36	

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SUMMARY OF DETECTION

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92280507010	**MASON BRANCH#2-121515**					
EPA 8260	1,2-Dichloroethane	0.69J	ug/L	1.0	12/22/15 19:36	
EPA 8260	cis-1,2-Dichloroethene	6.8	ug/L	1.0	12/22/15 19:36	
EPA 8260	Vinyl chloride	30.6	ug/L	1.0	12/22/15 19:36	
92280507011	**SEEP-H-121515**					
EPA 8260	Chloroform	1.5	ug/L	1.0	12/22/15 18:28	
EPA 8260	1,1-Dichloroethane	0.39J	ug/L	1.0	12/22/15 18:28	
EPA 8260	1,1-Dichloroethene	30.7	ug/L	1.0	12/22/15 18:28	
EPA 8260	cis-1,2-Dichloroethene	40.1	ug/L	1.0	12/22/15 18:28	
EPA 8260	1,1,1-Trichloroethane	3.1	ug/L	1.0	12/22/15 18:28	
EPA 8260	Trichloroethene	275	ug/L	2.5	12/23/15 12:08	
92280507012	**SEEP-G-121515**					
EPA 8260	1,1-Dichloroethene	1.2	ug/L	1.0	12/23/15 20:40	
EPA 8260	cis-1,2-Dichloroethene	11.0	ug/L	1.0	12/23/15 20:40	
EPA 8260	Trichloroethene	0.86J	ug/L	1.0	12/23/15 20:40	
92280507013	**SEEP#2-121515**					
EPA 8260	1,1-Dichloroethene	1.0	ug/L	1.0	12/23/15 20:23	
EPA 8260	cis-1,2-Dichloroethene	8.1	ug/L	1.0	12/23/15 20:23	
EPA 8260	Trichloroethene	6.9	ug/L	1.0	12/23/15 20:23	
92280507014	**SEEP-B-121515**					
EPA 8260	cis-1,2-Dichloroethene	7.9	ug/L	1.0	12/22/15 17:36	
EPA 8260	Toluene	1.7	ug/L	1.0	12/22/15 17:36	
EPA 8260	Trichloroethene	1.5	ug/L	1.0	12/22/15 17:36	
EPA 8260	Vinyl chloride	0.74J	ug/L	1.0	12/22/15 17:36	
92280507015	**MW-10-121515**					
EPA 8260	Chloroform	1.3	ug/L	1.0	12/22/15 17:19	
EPA 8260	Trichloroethene	1.7	ug/L	1.0	12/22/15 17:19	
92280507016	**MW-3-121515**					
EPA 8260	Chloroform	3.9	ug/L	1.0	12/22/15 17:02	
92280507017	**SEEP-L-121615**					
EPA 8260	cis-1,2-Dichloroethene	0.55J	ug/L	1.0	12/22/15 16:45	
92280507020	**SEEP-I-121615**					
EPA 8260	cis-1,2-Dichloroethene	1.1	ug/L	1.0	12/22/15 15:55	
EPA 8260	Tetrachloroethene	0.55J	ug/L	1.0	12/22/15 15:55	
92280507023	**DRUM COMPOSITE-121615**					
EPA 8260	Chloroform	0.72J	ug/L	2.0	12/24/15 08:38	
EPA 8260	1,1-Dichloroethene	7.1	ug/L	2.0	12/24/15 08:38	
EPA 8260	cis-1,2-Dichloroethene	155	ug/L	2.0	12/24/15 08:38	
EPA 8260	Trichloroethene	779	ug/L	10.0	12/24/15 14:26	
EPA 8260	Vinyl chloride	3.6	ug/L	2.0	12/24/15 08:38	

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PROJECT NARRATIVE

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: December 28, 2015

General Information:
24 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/34862

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1635248)
  - Hexachloro-1,3-butadiene

QC Batch: MSV/34886

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1635814)
  - 1,4-Dioxane (p-Dioxane)
  - Hexachloro-1,3-butadiene

QC Batch: MSV/34891

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1635841)
  - Hexachloro-1,3-butadiene

QC Batch: MSV/34901

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1636343)
  - Hexachloro-1,3-butadiene

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PROJECT NARRATIVE

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: December 28, 2015

QC Batch: MSV/34912

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1636740)
  - 1,4-Dioxane (p-Dioxane)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/34862

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280507022

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- MS (Lab ID: 1635249)
  - Hexachloro-1,3-butadiene

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1635249)
  - 1,1-Dichloropropene
  - Bromomethane
  - Carbon tetrachloride

QC Batch: MSV/34886

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280507011

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- MS (Lab ID: 1635815)
  - Hexachloro-1,3-butadiene

QC Batch: MSV/34901

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280540008

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1636344)
  - 1,1,1-Trichloroethane
  - 1,1-Dichloropropene
  - Bromomethane
  - Carbon tetrachloride

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM
Client: Amec Foster Wheeler, Georgia
Date: December 28, 2015

General Information:
8 samples were analyzed for EPA 8260B Mod.. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-27-121515 **Lab ID: 92280507001** Collected: 12/15/15 12:14 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 19:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 19:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 19:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 19:19	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 19:19	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 19:19	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 19:19	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 19:19	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 19:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 19:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 19:19	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 19:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 19:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 19:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 19:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 19:19	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 19:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 19:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 19:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 19:19	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 19:19	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 19:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 19:19	107-06-2	
1,1-Dichloroethene	**2.5**	ug/L	1.0	0.56	1		12/22/15 19:19	75-35-4	
cis-1,2-Dichloroethene	**26.6**	ug/L	1.0	0.19	1		12/22/15 19:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 19:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 19:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 19:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 19:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 19:19	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 19:19	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 19:19	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 19:19	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 19:19	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 19:19	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 19:19	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 19:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 19:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 19:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 19:19	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 19:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 19:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 19:19	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-27-121515 **Lab ID: 92280507001** Collected: 12/15/15 12:14 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 19:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 19:19	79-00-5	
Trichloroethene	**8.2**	ug/L	1.0	0.47	1		12/22/15 19:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 19:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 19:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 19:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 19:19	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 19:19	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 19:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 19:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 19:19	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		12/22/15 19:19	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 19:19	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 14:55	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	103	%	50-150		1		12/20/15 14:55	17060-07-0	
Toluene-d8 (S)	97	%	50-150		1		12/20/15 14:55	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-28-121515 **Lab ID: 92280507002** Collected: 12/15/15 12:43 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 18:45	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:45	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 18:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 18:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 18:45	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 18:45	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 18:45	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 18:45	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 18:45	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 18:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 18:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 18:45	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 18:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 18:45	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 18:45	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 18:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 18:45	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 18:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 18:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 18:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 18:45	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 18:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 18:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 18:45	107-06-2	
1,1-Dichloroethene	**3.1**	ug/L	1.0	0.56	1		12/22/15 18:45	75-35-4	
cis-1,2-Dichloroethene	**26.6**	ug/L	1.0	0.19	1		12/22/15 18:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 18:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 18:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 18:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 18:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 18:45	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 18:45	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 18:45	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 18:45	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 18:45	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 18:45	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 18:45	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 18:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 18:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 18:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 18:45	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 18:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 18:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 18:45	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-28-121515 **Lab ID: 92280507002** Collected: 12/15/15 12:43 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 18:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 18:45	79-00-5	
Trichloroethene	**6.3**	ug/L	1.0	0.47	1		12/22/15 18:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 18:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 18:45	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 18:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 18:45	108-67-8	
Vinyl chloride	**0.94J**	ug/L	1.0	0.62	1		12/22/15 18:45	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 18:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 18:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		12/22/15 18:45	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		12/22/15 18:45	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 18:45	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 15:15	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%	50-150		1		12/20/15 15:15	17060-07-0	
Toluene-d8 (S)	94	%	50-150		1		12/20/15 15:15	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-20-121515 **Lab ID: 92280507003** Collected: 12/15/15 17:35 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	4.0	1.0	4		12/23/15 07:17	71-43-2	
Bromobenzene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	108-86-1	
Bromochloromethane	ND	ug/L	4.0	0.68	4		12/23/15 07:17	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	0.72	4		12/23/15 07:17	75-27-4	
Bromoform	ND	ug/L	4.0	1.0	4		12/23/15 07:17	75-25-2	
Bromomethane	ND	ug/L	8.0	1.2	4		12/23/15 07:17	74-83-9	
n-Butylbenzene	ND	ug/L	4.0	1.6	4		12/23/15 07:17	104-51-8	
sec-Butylbenzene	ND	ug/L	4.0	1.5	4		12/23/15 07:17	135-98-8	
tert-Butylbenzene	ND	ug/L	4.0	1.6	4		12/23/15 07:17	98-06-6	
Carbon tetrachloride	ND	ug/L	4.0	1.0	4		12/23/15 07:17	56-23-5	
Chlorobenzene	ND	ug/L	4.0	0.92	4		12/23/15 07:17	108-90-7	
Chloroethane	ND	ug/L	4.0	2.2	4		12/23/15 07:17	75-00-3	
Chloroform	ND	ug/L	4.0	0.56	4		12/23/15 07:17	67-66-3	
Chloromethane	ND	ug/L	4.0	0.44	4		12/23/15 07:17	74-87-3	
2-Chlorotoluene	ND	ug/L	4.0	1.4	4		12/23/15 07:17	95-49-8	
4-Chlorotoluene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	8.0	8.0	4		12/23/15 07:17	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	4.0	1.1	4		12/23/15 07:17	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.84	4		12/23/15 07:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	4.0	0.96	4		12/23/15 07:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	4.0	1.3	4		12/23/15 07:17	106-46-7	
Dichlorodifluoromethane	ND	ug/L	4.0	0.84	4		12/23/15 07:17	75-71-8	
1,1-Dichloroethane	ND	ug/L	4.0	1.3	4		12/23/15 07:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	4.0	0.96	4		12/23/15 07:17	107-06-2	
1,1-Dichloroethene	**6.4**	ug/L	4.0	2.2	4		12/23/15 07:17	75-35-4	
cis-1,2-Dichloroethene	**414**	ug/L	4.0	0.76	4		12/23/15 07:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	4.0	2.0	4		12/23/15 07:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	4.0	1.1	4		12/23/15 07:17	78-87-5	
1,3-Dichloropropane	ND	ug/L	4.0	1.1	4		12/23/15 07:17	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	0.52	4		12/23/15 07:17	594-20-7	
1,1-Dichloropropene	ND	ug/L	4.0	2.0	4		12/23/15 07:17	563-58-6	
Ethylbenzene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	2.8	4		12/23/15 07:17	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1.6	4		12/23/15 07:17	98-82-8	
p-Isopropyltoluene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	99-87-6	
Methylene Chloride	ND	ug/L	8.0	3.9	4		12/23/15 07:17	75-09-2	
Naphthalene	ND	ug/L	4.0	0.96	4		12/23/15 07:17	91-20-3	
n-Propylbenzene	ND	ug/L	4.0	1.7	4		12/23/15 07:17	103-65-1	
Styrene	ND	ug/L	4.0	1.0	4		12/23/15 07:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	4.0	1.3	4		12/23/15 07:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	4.0	1.6	4		12/23/15 07:17	79-34-5	
Tetrachloroethene	ND	ug/L	4.0	1.8	4		12/23/15 07:17	127-18-4	
Toluene	ND	ug/L	4.0	1.0	4		12/23/15 07:17	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1.3	4		12/23/15 07:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1.4	4		12/23/15 07:17	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-20-121515 **Lab ID: 92280507003** Collected: 12/15/15 17:35 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	4.0	1.9	4		12/23/15 07:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1.2	4		12/23/15 07:17	79-00-5	
Trichloroethene	ND	ug/L	4.0	1.9	4		12/23/15 07:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	0.80	4		12/23/15 07:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1.6	4		12/23/15 07:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	4.0	1.4	4		12/23/15 07:17	108-67-8	
Vinyl chloride	**5.0**	ug/L	4.0	2.5	4		12/23/15 07:17	75-01-4	
m&p-Xylene	ND	ug/L	8.0	2.6	4		12/23/15 07:17	179601-23-1	
o-Xylene	ND	ug/L	4.0	0.92	4		12/23/15 07:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		4		12/23/15 07:17	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		4		12/23/15 07:17	17060-07-0	
Toluene-d8 (S)	101	%	70-130		4		12/23/15 07:17	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 15:35	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	107	%	50-150		1		12/20/15 15:35	17060-07-0	
Toluene-d8 (S)	95	%	50-150		1		12/20/15 15:35	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-25-121615 **Lab ID: 92280507004** Collected: 12/16/15 11:52 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	25.0	6.2	25		12/23/15 07:35	71-43-2	
Bromobenzene	ND	ug/L	25.0	7.5	25		12/23/15 07:35	108-86-1	
Bromochloromethane	ND	ug/L	25.0	4.2	25		12/23/15 07:35	74-97-5	
Bromodichloromethane	ND	ug/L	25.0	4.5	25		12/23/15 07:35	75-27-4	
Bromoform	ND	ug/L	25.0	6.5	25		12/23/15 07:35	75-25-2	
Bromomethane	ND	ug/L	50.0	7.2	25		12/23/15 07:35	74-83-9	
n-Butylbenzene	ND	ug/L	25.0	10.2	25		12/23/15 07:35	104-51-8	
sec-Butylbenzene	ND	ug/L	25.0	9.5	25		12/23/15 07:35	135-98-8	
tert-Butylbenzene	ND	ug/L	25.0	10.0	25		12/23/15 07:35	98-06-6	
Carbon tetrachloride	ND	ug/L	25.0	6.2	25		12/23/15 07:35	56-23-5	
Chlorobenzene	ND	ug/L	25.0	5.8	25		12/23/15 07:35	108-90-7	
Chloroethane	ND	ug/L	25.0	13.5	25		12/23/15 07:35	75-00-3	
Chloroform	ND	ug/L	25.0	3.5	25		12/23/15 07:35	67-66-3	
Chloromethane	ND	ug/L	25.0	2.8	25		12/23/15 07:35	74-87-3	
2-Chlorotoluene	ND	ug/L	25.0	8.8	25		12/23/15 07:35	95-49-8	
4-Chlorotoluene	ND	ug/L	25.0	7.8	25		12/23/15 07:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	50.0	50.0	25		12/23/15 07:35	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	25.0	6.8	25		12/23/15 07:35	106-93-4	
Dibromomethane	ND	ug/L	25.0	5.2	25		12/23/15 07:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	25.0	7.5	25		12/23/15 07:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	25.0	6.0	25		12/23/15 07:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	25.0	8.2	25		12/23/15 07:35	106-46-7	
Dichlorodifluoromethane	ND	ug/L	25.0	5.2	25		12/23/15 07:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	25.0	8.0	25		12/23/15 07:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	25.0	6.0	25		12/23/15 07:35	107-06-2	
1,1-Dichloroethene	**27.0**	ug/L	25.0	14.0	25		12/23/15 07:35	75-35-4	
cis-1,2-Dichloroethene	**798**	ug/L	25.0	4.8	25		12/23/15 07:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	25.0	12.2	25		12/23/15 07:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	25.0	6.8	25		12/23/15 07:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	25.0	7.0	25		12/23/15 07:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	25.0	3.2	25		12/23/15 07:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	25.0	12.2	25		12/23/15 07:35	563-58-6	
Ethylbenzene	ND	ug/L	25.0	7.5	25		12/23/15 07:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	25.0	17.8	25		12/23/15 07:35	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	25.0	10.0	25		12/23/15 07:35	98-82-8	
p-Isopropyltoluene	ND	ug/L	25.0	7.8	25		12/23/15 07:35	99-87-6	
Methylene Chloride	ND	ug/L	50.0	24.2	25		12/23/15 07:35	75-09-2	
Naphthalene	ND	ug/L	25.0	6.0	25		12/23/15 07:35	91-20-3	
n-Propylbenzene	ND	ug/L	25.0	10.5	25		12/23/15 07:35	103-65-1	
Styrene	ND	ug/L	25.0	6.5	25		12/23/15 07:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	25.0	8.2	25		12/23/15 07:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	25.0	10.0	25		12/23/15 07:35	79-34-5	
Tetrachloroethene	ND	ug/L	25.0	11.5	25		12/23/15 07:35	127-18-4	
Toluene	ND	ug/L	25.0	6.5	25		12/23/15 07:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	25.0	8.2	25		12/23/15 07:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	25.0	8.8	25		12/23/15 07:35	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-25-121615 **Lab ID: 92280507004** Collected: 12/16/15 11:52 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	25.0	12.0	25		12/23/15 07:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	25.0	7.2	25		12/23/15 07:35	79-00-5	
Trichloroethene	**3670**	ug/L	25.0	11.8	25		12/23/15 07:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	25.0	5.0	25		12/23/15 07:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	25.0	10.2	25		12/23/15 07:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	25.0	7.8	25		12/23/15 07:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	25.0	9.0	25		12/23/15 07:35	108-67-8	
Vinyl chloride	ND	ug/L	25.0	15.5	25		12/23/15 07:35	75-01-4	
m&p-Xylene	ND	ug/L	50.0	16.5	25		12/23/15 07:35	179601-23-1	
o-Xylene	ND	ug/L	25.0	5.8	25		12/23/15 07:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		25		12/23/15 07:35	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		25		12/23/15 07:35	17060-07-0	
Toluene-d8 (S)	99	%	70-130		25		12/23/15 07:35	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 15:56	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	109	%	50-150		1		12/20/15 15:56	17060-07-0	
Toluene-d8 (S)	96	%	50-150		1		12/20/15 15:56	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-19-121615 **Lab ID: 92280507005** Collected: 12/16/15 11:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	20.0	5.0	20		12/23/15 07:52	71-43-2	
Bromobenzene	ND	ug/L	20.0	6.0	20		12/23/15 07:52	108-86-1	
Bromochloromethane	ND	ug/L	20.0	3.4	20		12/23/15 07:52	74-97-5	
Bromodichloromethane	ND	ug/L	20.0	3.6	20		12/23/15 07:52	75-27-4	
Bromoform	ND	ug/L	20.0	5.2	20		12/23/15 07:52	75-25-2	
Bromomethane	ND	ug/L	40.0	5.8	20		12/23/15 07:52	74-83-9	
n-Butylbenzene	ND	ug/L	20.0	8.2	20		12/23/15 07:52	104-51-8	
sec-Butylbenzene	ND	ug/L	20.0	7.6	20		12/23/15 07:52	135-98-8	
tert-Butylbenzene	ND	ug/L	20.0	8.0	20		12/23/15 07:52	98-06-6	
Carbon tetrachloride	ND	ug/L	20.0	5.0	20		12/23/15 07:52	56-23-5	
Chlorobenzene	ND	ug/L	20.0	4.6	20		12/23/15 07:52	108-90-7	
Chloroethane	ND	ug/L	20.0	10.8	20		12/23/15 07:52	75-00-3	
Chloroform	ND	ug/L	20.0	2.8	20		12/23/15 07:52	67-66-3	
Chloromethane	ND	ug/L	20.0	2.2	20		12/23/15 07:52	74-87-3	
2-Chlorotoluene	ND	ug/L	20.0	7.0	20		12/23/15 07:52	95-49-8	
4-Chlorotoluene	ND	ug/L	20.0	6.2	20		12/23/15 07:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	40.0	40.0	20		12/23/15 07:52	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	20.0	5.4	20		12/23/15 07:52	106-93-4	
Dibromomethane	ND	ug/L	20.0	4.2	20		12/23/15 07:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	20.0	6.0	20		12/23/15 07:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	20.0	4.8	20		12/23/15 07:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	20.0	6.6	20		12/23/15 07:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	20.0	4.2	20		12/23/15 07:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	20.0	6.4	20		12/23/15 07:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	20.0	4.8	20		12/23/15 07:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	20.0	11.2	20		12/23/15 07:52	75-35-4	
cis-1,2-Dichloroethene	**8.0J**	ug/L	20.0	3.8	20		12/23/15 07:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	20.0	9.8	20		12/23/15 07:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	20.0	5.4	20		12/23/15 07:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	20.0	5.6	20		12/23/15 07:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	20.0	2.6	20		12/23/15 07:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	20.0	9.8	20		12/23/15 07:52	563-58-6	
Ethylbenzene	ND	ug/L	20.0	6.0	20		12/23/15 07:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	20.0	14.2	20		12/23/15 07:52	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	20.0	8.0	20		12/23/15 07:52	98-82-8	
p-Isopropyltoluene	ND	ug/L	20.0	6.2	20		12/23/15 07:52	99-87-6	
Methylene Chloride	ND	ug/L	40.0	19.4	20		12/23/15 07:52	75-09-2	
Naphthalene	ND	ug/L	20.0	4.8	20		12/23/15 07:52	91-20-3	
n-Propylbenzene	ND	ug/L	20.0	8.4	20		12/23/15 07:52	103-65-1	
Styrene	ND	ug/L	20.0	5.2	20		12/23/15 07:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	20.0	6.6	20		12/23/15 07:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	20.0	8.0	20		12/23/15 07:52	79-34-5	
Tetrachloroethene	ND	ug/L	20.0	9.2	20		12/23/15 07:52	127-18-4	
Toluene	ND	ug/L	20.0	5.2	20		12/23/15 07:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	20.0	6.6	20		12/23/15 07:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	20.0	7.0	20		12/23/15 07:52	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-19-121615 **Lab ID: 92280507005** Collected: 12/16/15 11:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	20.0	9.6	20		12/23/15 07:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	20.0	5.8	20		12/23/15 07:52	79-00-5	
Trichloroethene	**1720**	ug/L	20.0	9.4	20		12/23/15 07:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	20.0	4.0	20		12/23/15 07:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	20.0	8.2	20		12/23/15 07:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	20.0	6.2	20		12/23/15 07:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	20.0	7.2	20		12/23/15 07:52	108-67-8	
Vinyl chloride	ND	ug/L	20.0	12.4	20		12/23/15 07:52	75-01-4	
m&p-Xylene	ND	ug/L	40.0	13.2	20		12/23/15 07:52	179601-23-1	
o-Xylene	ND	ug/L	20.0	4.6	20		12/23/15 07:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		20		12/23/15 07:52	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		20		12/23/15 07:52	17060-07-0	
Toluene-d8 (S)	100	%	70-130		20		12/23/15 07:52	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 16:36	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	106	%	50-150		1		12/20/15 16:36	17060-07-0	
Toluene-d8 (S)	96	%	50-150		1		12/20/15 16:36	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-14-121615 **Lab ID: 92280507006** Collected: 12/16/15 14:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	20.0	5.0	20		12/23/15 08:09	71-43-2	
Bromobenzene	ND	ug/L	20.0	6.0	20		12/23/15 08:09	108-86-1	
Bromochloromethane	ND	ug/L	20.0	3.4	20		12/23/15 08:09	74-97-5	
Bromodichloromethane	ND	ug/L	20.0	3.6	20		12/23/15 08:09	75-27-4	
Bromoform	ND	ug/L	20.0	5.2	20		12/23/15 08:09	75-25-2	
Bromomethane	ND	ug/L	40.0	5.8	20		12/23/15 08:09	74-83-9	
n-Butylbenzene	ND	ug/L	20.0	8.2	20		12/23/15 08:09	104-51-8	
sec-Butylbenzene	ND	ug/L	20.0	7.6	20		12/23/15 08:09	135-98-8	
tert-Butylbenzene	ND	ug/L	20.0	8.0	20		12/23/15 08:09	98-06-6	
Carbon tetrachloride	ND	ug/L	20.0	5.0	20		12/23/15 08:09	56-23-5	
Chlorobenzene	ND	ug/L	20.0	4.6	20		12/23/15 08:09	108-90-7	
Chloroethane	ND	ug/L	20.0	10.8	20		12/23/15 08:09	75-00-3	
Chloroform	ND	ug/L	20.0	2.8	20		12/23/15 08:09	67-66-3	
Chloromethane	ND	ug/L	20.0	2.2	20		12/23/15 08:09	74-87-3	
2-Chlorotoluene	ND	ug/L	20.0	7.0	20		12/23/15 08:09	95-49-8	
4-Chlorotoluene	ND	ug/L	20.0	6.2	20		12/23/15 08:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	40.0	40.0	20		12/23/15 08:09	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	20.0	5.4	20		12/23/15 08:09	106-93-4	
Dibromomethane	ND	ug/L	20.0	4.2	20		12/23/15 08:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	20.0	6.0	20		12/23/15 08:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	20.0	4.8	20		12/23/15 08:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	20.0	6.6	20		12/23/15 08:09	106-46-7	
Dichlorodifluoromethane	ND	ug/L	20.0	4.2	20		12/23/15 08:09	75-71-8	
1,1-Dichloroethane	ND	ug/L	20.0	6.4	20		12/23/15 08:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	20.0	4.8	20		12/23/15 08:09	107-06-2	
1,1-Dichloroethene	**45.4**	ug/L	20.0	11.2	20		12/23/15 08:09	75-35-4	
cis-1,2-Dichloroethene	**249**	ug/L	20.0	3.8	20		12/23/15 08:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	20.0	9.8	20		12/23/15 08:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	20.0	5.4	20		12/23/15 08:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	20.0	5.6	20		12/23/15 08:09	142-28-9	
2,2-Dichloropropane	ND	ug/L	20.0	2.6	20		12/23/15 08:09	594-20-7	
1,1-Dichloropropene	ND	ug/L	20.0	9.8	20		12/23/15 08:09	563-58-6	
Ethylbenzene	ND	ug/L	20.0	6.0	20		12/23/15 08:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	20.0	14.2	20		12/23/15 08:09	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	20.0	8.0	20		12/23/15 08:09	98-82-8	
p-Isopropyltoluene	ND	ug/L	20.0	6.2	20		12/23/15 08:09	99-87-6	
Methylene Chloride	ND	ug/L	40.0	19.4	20		12/23/15 08:09	75-09-2	
Naphthalene	ND	ug/L	20.0	4.8	20		12/23/15 08:09	91-20-3	
n-Propylbenzene	ND	ug/L	20.0	8.4	20		12/23/15 08:09	103-65-1	
Styrene	ND	ug/L	20.0	5.2	20		12/23/15 08:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	20.0	6.6	20		12/23/15 08:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	20.0	8.0	20		12/23/15 08:09	79-34-5	
Tetrachloroethene	ND	ug/L	20.0	9.2	20		12/23/15 08:09	127-18-4	
Toluene	ND	ug/L	20.0	5.2	20		12/23/15 08:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	20.0	6.6	20		12/23/15 08:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	20.0	7.0	20		12/23/15 08:09	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-14-121615 **Lab ID: 92280507006** Collected: 12/16/15 14:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	20.0	9.6	20		12/23/15 08:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	20.0	5.8	20		12/23/15 08:09	79-00-5	
Trichloroethene	**1940**	ug/L	20.0	9.4	20		12/23/15 08:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	20.0	4.0	20		12/23/15 08:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	20.0	8.2	20		12/23/15 08:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	20.0	6.2	20		12/23/15 08:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	20.0	7.2	20		12/23/15 08:09	108-67-8	
Vinyl chloride	ND	ug/L	20.0	12.4	20		12/23/15 08:09	75-01-4	
m&p-Xylene	ND	ug/L	40.0	13.2	20		12/23/15 08:09	179601-23-1	
o-Xylene	ND	ug/L	20.0	4.6	20		12/23/15 08:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		20		12/23/15 08:09	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		20		12/23/15 08:09	17060-07-0	
Toluene-d8 (S)	99	%	70-130		20		12/23/15 08:09	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 16:56	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%	50-150		1		12/20/15 16:56	17060-07-0	
Toluene-d8 (S)	94	%	50-150		1		12/20/15 16:56	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-5-121615 **Lab ID: 92280507007** Collected: 12/16/15 16:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.0	0.50	2		12/24/15 08:21	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:21	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		12/24/15 08:21	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		12/24/15 08:21	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		12/24/15 08:21	75-25-2	
Bromomethane	ND	ug/L	4.0	0.58	2		12/24/15 08:21	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		12/24/15 08:21	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		12/24/15 08:21	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		12/24/15 08:21	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		12/24/15 08:21	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		12/24/15 08:21	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		12/24/15 08:21	75-00-3	
Chloroform	**2.6**	ug/L	2.0	0.28	2		12/24/15 08:21	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		12/24/15 08:21	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		12/24/15 08:21	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	4.0	2		12/24/15 08:21	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		12/24/15 08:21	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		12/24/15 08:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		12/24/15 08:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:21	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		12/24/15 08:21	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		12/24/15 08:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	0.48	2		12/24/15 08:21	107-06-2	
1,1-Dichloroethene	**1.6J**	ug/L	2.0	1.1	2		12/24/15 08:21	75-35-4	
cis-1,2-Dichloroethene	**1.9J**	ug/L	2.0	0.38	2		12/24/15 08:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		12/24/15 08:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		12/24/15 08:21	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		12/24/15 08:21	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		12/24/15 08:21	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		12/24/15 08:21	563-58-6	
Ethylbenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:21	100-41-4	
Hexachloro-1,3-butadiene	**4.8**	ug/L	2.0	1.4	2		12/24/15 08:21	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		12/24/15 08:21	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:21	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1.9	2		12/24/15 08:21	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		12/24/15 08:21	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		12/24/15 08:21	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		12/24/15 08:21	100-42-5	
1,1,1,2-Tetrachloroethane	**1.3J**	ug/L	2.0	0.66	2		12/24/15 08:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		12/24/15 08:21	79-34-5	
Tetrachloroethene	**1.3J**	ug/L	2.0	0.92	2		12/24/15 08:21	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		12/24/15 08:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		12/24/15 08:21	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-5-121615 **Lab ID: 92280507007** Collected: 12/16/15 16:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	2.0	0.96	2		12/24/15 08:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		12/24/15 08:21	79-00-5	
Trichloroethene	**237**	ug/L	2.0	0.94	2		12/24/15 08:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	0.40	2		12/24/15 08:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		12/24/15 08:21	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		12/24/15 08:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		12/24/15 08:21	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1.2	2		12/24/15 08:21	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		12/24/15 08:21	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		12/24/15 08:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		2		12/24/15 08:21	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		2		12/24/15 08:21	17060-07-0	
Toluene-d8 (S)	99	%	70-130		2		12/24/15 08:21	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 17:17	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	107	%	50-150		1		12/20/15 17:17	17060-07-0	
Toluene-d8 (S)	93	%	50-150		1		12/20/15 17:17	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: DUP-01-121615 **Lab ID: 92280507008** Collected: 12/16/15 12:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.0	0.50	2		12/24/15 08:55	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:55	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		12/24/15 08:55	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		12/24/15 08:55	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		12/24/15 08:55	75-25-2	
Bromomethane	ND	ug/L	4.0	0.58	2		12/24/15 08:55	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		12/24/15 08:55	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		12/24/15 08:55	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		12/24/15 08:55	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		12/24/15 08:55	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		12/24/15 08:55	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		12/24/15 08:55	75-00-3	
Chloroform	**2.7**	ug/L	2.0	0.28	2		12/24/15 08:55	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		12/24/15 08:55	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		12/24/15 08:55	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	4.0	2		12/24/15 08:55	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		12/24/15 08:55	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		12/24/15 08:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		12/24/15 08:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		12/24/15 08:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		12/24/15 08:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	0.48	2		12/24/15 08:55	107-06-2	
1,1-Dichloroethene	**1.9J**	ug/L	2.0	1.1	2		12/24/15 08:55	75-35-4	
cis-1,2-Dichloroethene	**1.8J**	ug/L	2.0	0.38	2		12/24/15 08:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		12/24/15 08:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		12/24/15 08:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		12/24/15 08:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		12/24/15 08:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		12/24/15 08:55	563-58-6	
Ethylbenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:55	100-41-4	
Hexachloro-1,3-butadiene	**4.5**	ug/L	2.0	1.4	2		12/24/15 08:55	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		12/24/15 08:55	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:55	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1.9	2		12/24/15 08:55	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		12/24/15 08:55	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		12/24/15 08:55	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		12/24/15 08:55	100-42-5	
1,1,1,2-Tetrachloroethane	**1.7J**	ug/L	2.0	0.66	2		12/24/15 08:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		12/24/15 08:55	79-34-5	
Tetrachloroethene	**1.2J**	ug/L	2.0	0.92	2		12/24/15 08:55	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		12/24/15 08:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		12/24/15 08:55	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: DUP-01-121615 **Lab ID: 92280507008** Collected: 12/16/15 12:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	2.0	0.96	2		12/24/15 08:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		12/24/15 08:55	79-00-5	
Trichloroethene	**256**	ug/L	2.0	0.94	2		12/24/15 08:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	0.40	2		12/24/15 08:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		12/24/15 08:55	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		12/24/15 08:55	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		12/24/15 08:55	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1.2	2		12/24/15 08:55	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		12/24/15 08:55	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		12/24/15 08:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		2		12/24/15 08:55	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		2		12/24/15 08:55	17060-07-0	
Toluene-d8 (S)	99	%	70-130		2		12/24/15 08:55	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 17:37	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	107	%	50-150		1		12/20/15 17:37	17060-07-0	
Toluene-d8 (S)	97	%	50-150		1		12/20/15 17:37	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-22-121515 **Lab ID: 92280507009** Collected: 12/15/15 11:07 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 20:10	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 20:10	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 20:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 20:10	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 20:10	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 20:10	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 20:10	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 20:10	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 20:10	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 20:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 20:10	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 20:10	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 20:10	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 20:10	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 20:10	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 20:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 20:10	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 20:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 20:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 20:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 20:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 20:10	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 20:10	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 20:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 20:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 20:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 20:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 20:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 20:10	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 20:10	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 20:10	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 20:10	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 20:10	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 20:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 20:10	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 20:10	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 20:10	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 20:10	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 20:10	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 20:10	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 20:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 20:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 20:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 20:10	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 20:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 20:10	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-22-121515 **Lab ID: 92280507009** Collected: 12/15/15 11:07 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 20:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 20:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 20:10	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 20:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 20:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 20:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 20:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 20:10	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 20:10	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 20:10	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 20:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		12/22/15 20:10	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		12/22/15 20:10	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 20:10	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MASON BRANCH#2-121515 **Lab ID: 92280507010** Collected: 12/15/15 13:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 19:36	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:36	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 19:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 19:36	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 19:36	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 19:36	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 19:36	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 19:36	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 19:36	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 19:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 19:36	108-90-7	
Chloroethane	**0.68J**	ug/L	1.0	0.54	1		12/22/15 19:36	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 19:36	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 19:36	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 19:36	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 19:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 19:36	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 19:36	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 19:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 19:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 19:36	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 19:36	75-71-8	
1,1-Dichloroethane	**3.1**	ug/L	1.0	0.32	1		12/22/15 19:36	75-34-3	
1,2-Dichloroethane	**0.69J**	ug/L	1.0	0.24	1		12/22/15 19:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 19:36	75-35-4	
cis-1,2-Dichloroethene	**6.8**	ug/L	1.0	0.19	1		12/22/15 19:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 19:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 19:36	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 19:36	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 19:36	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 19:36	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 19:36	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 19:36	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 19:36	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 19:36	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 19:36	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 19:36	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 19:36	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 19:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 19:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 19:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 19:36	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 19:36	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MASON BRANCH#2-121515 **Lab ID: 92280507010** Collected: 12/15/15 13:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 19:36	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 19:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 19:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 19:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 19:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 19:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 19:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 19:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 19:36	108-67-8	
Vinyl chloride	**30.6**	ug/L	1.0	0.62	1		12/22/15 19:36	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 19:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 19:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 19:36	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 19:36	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 19:36	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-H-121515 **Lab ID: 92280507011** Collected: 12/15/15 14:05 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 18:28	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:28	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 18:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 18:28	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 18:28	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 18:28	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 18:28	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 18:28	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 18:28	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 18:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 18:28	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 18:28	75-00-3	
Chloroform	**1.5**	ug/L	1.0	0.14	1		12/22/15 18:28	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 18:28	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 18:28	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 18:28	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 18:28	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 18:28	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 18:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 18:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 18:28	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 18:28	75-71-8	
1,1-Dichloroethane	**0.39J**	ug/L	1.0	0.32	1		12/22/15 18:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 18:28	107-06-2	
1,1-Dichloroethene	**30.7**	ug/L	1.0	0.56	1		12/22/15 18:28	75-35-4	
cis-1,2-Dichloroethene	**40.1**	ug/L	1.0	0.19	1		12/22/15 18:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 18:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 18:28	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 18:28	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 18:28	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 18:28	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 18:28	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:28	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 18:28	87-68-3	L3,M0
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 18:28	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 18:28	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 18:28	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 18:28	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 18:28	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 18:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 18:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 18:28	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 18:28	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 18:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 18:28	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-H-121515 **Lab ID: 92280507011** Collected: 12/15/15 14:05 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 18:28	120-82-1	
1,1,1-Trichloroethane	**3.1**	ug/L	1.0	0.48	1		12/22/15 18:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 18:28	79-00-5	
Trichloroethene	**275**	ug/L	2.5	1.2	2.5		12/23/15 12:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 18:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 18:28	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 18:28	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 18:28	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 18:28	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 18:28	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 18:28	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 18:28	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 18:28	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		12/22/15 18:28	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-G-121515 **Lab ID: 92280507012** Collected: 12/15/15 14:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/23/15 20:40	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:40	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/23/15 20:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/23/15 20:40	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/23/15 20:40	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/23/15 20:40	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/23/15 20:40	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/23/15 20:40	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/23/15 20:40	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/23/15 20:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/23/15 20:40	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/23/15 20:40	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/23/15 20:40	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/23/15 20:40	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/23/15 20:40	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/23/15 20:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/23/15 20:40	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/23/15 20:40	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/23/15 20:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/23/15 20:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/23/15 20:40	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/23/15 20:40	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/23/15 20:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/23/15 20:40	107-06-2	
1,1-Dichloroethene	**1.2**	ug/L	1.0	0.56	1		12/23/15 20:40	75-35-4	
cis-1,2-Dichloroethene	**11.0**	ug/L	1.0	0.19	1		12/23/15 20:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/23/15 20:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/23/15 20:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/23/15 20:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/23/15 20:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/23/15 20:40	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/23/15 20:40	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/23/15 20:40	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/23/15 20:40	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/23/15 20:40	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/23/15 20:40	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/23/15 20:40	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/23/15 20:40	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/23/15 20:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/23/15 20:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/23/15 20:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/23/15 20:40	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/23/15 20:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/23/15 20:40	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-G-121515 **Lab ID: 92280507012** Collected: 12/15/15 14:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/23/15 20:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/23/15 20:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/23/15 20:40	79-00-5	
Trichloroethene	**0.86J**	ug/L	1.0	0.47	1		12/23/15 20:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/23/15 20:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/23/15 20:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/23/15 20:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/23/15 20:40	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/23/15 20:40	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/23/15 20:40	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/23/15 20:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		12/23/15 20:40	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		12/23/15 20:40	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/23/15 20:40	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP#2-121515 **Lab ID: 92280507013** Collected: 12/15/15 14:35 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/23/15 20:23	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:23	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/23/15 20:23	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/23/15 20:23	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/23/15 20:23	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/23/15 20:23	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/23/15 20:23	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/23/15 20:23	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/23/15 20:23	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/23/15 20:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/23/15 20:23	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/23/15 20:23	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/23/15 20:23	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/23/15 20:23	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/23/15 20:23	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/23/15 20:23	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/23/15 20:23	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/23/15 20:23	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/23/15 20:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/23/15 20:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/23/15 20:23	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/23/15 20:23	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/23/15 20:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/23/15 20:23	107-06-2	
1,1-Dichloroethene	**1.0**	ug/L	1.0	0.56	1		12/23/15 20:23	75-35-4	
cis-1,2-Dichloroethene	**8.1**	ug/L	1.0	0.19	1		12/23/15 20:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/23/15 20:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/23/15 20:23	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/23/15 20:23	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/23/15 20:23	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/23/15 20:23	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/23/15 20:23	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:23	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/23/15 20:23	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/23/15 20:23	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/23/15 20:23	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/23/15 20:23	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/23/15 20:23	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/23/15 20:23	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/23/15 20:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/23/15 20:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/23/15 20:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/23/15 20:23	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/23/15 20:23	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/23/15 20:23	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP#2-121515 **Lab ID: 92280507013** Collected: 12/15/15 14:35 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/23/15 20:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/23/15 20:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/23/15 20:23	79-00-5	
Trichloroethene	**6.9**	ug/L	1.0	0.47	1		12/23/15 20:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/23/15 20:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/23/15 20:23	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/23/15 20:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/23/15 20:23	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/23/15 20:23	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/23/15 20:23	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/23/15 20:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		12/23/15 20:23	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		12/23/15 20:23	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/23/15 20:23	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-B-121515 **Lab ID: 92280507014** Collected: 12/15/15 14:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 17:36	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:36	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 17:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 17:36	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 17:36	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 17:36	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 17:36	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 17:36	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 17:36	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 17:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 17:36	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 17:36	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 17:36	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 17:36	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 17:36	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 17:36	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 17:36	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 17:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 17:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:36	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 17:36	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 17:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 17:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 17:36	75-35-4	
cis-1,2-Dichloroethene	**7.9**	ug/L	1.0	0.19	1		12/22/15 17:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 17:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 17:36	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 17:36	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 17:36	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 17:36	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 17:36	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 17:36	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 17:36	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:36	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 17:36	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 17:36	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 17:36	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 17:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 17:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 17:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 17:36	127-18-4	
Toluene	**1.7**	ug/L	1.0	0.26	1		12/22/15 17:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:36	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-B-121515 **Lab ID: 92280507014** Collected: 12/15/15 14:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 17:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 17:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 17:36	79-00-5	
Trichloroethene	**1.5**	ug/L	1.0	0.47	1		12/22/15 17:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 17:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 17:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 17:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 17:36	108-67-8	
Vinyl chloride	**0.74J**	ug/L	1.0	0.62	1		12/22/15 17:36	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 17:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 17:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		12/22/15 17:36	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		12/22/15 17:36	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 17:36	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-10-121515 **Lab ID: 92280507015** Collected: 12/15/15 11:48 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 17:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 17:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 17:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 17:19	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 17:19	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 17:19	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 17:19	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 17:19	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 17:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 17:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 17:19	75-00-3	
Chloroform	**1.3**	ug/L	1.0	0.14	1		12/22/15 17:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 17:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 17:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 17:19	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 17:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 17:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 17:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:19	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 17:19	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 17:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 17:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 17:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 17:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 17:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 17:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 17:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 17:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 17:19	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 17:19	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 17:19	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 17:19	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:19	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 17:19	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 17:19	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 17:19	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 17:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 17:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 17:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 17:19	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 17:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:19	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-10-121515 **Lab ID: 92280507015** Collected: 12/15/15 11:48 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 17:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 17:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 17:19	79-00-5	
Trichloroethene	**1.7**	ug/L	1.0	0.47	1		12/22/15 17:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 17:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 17:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 17:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 17:19	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 17:19	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 17:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 17:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		12/22/15 17:19	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		12/22/15 17:19	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 17:19	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-3-121515 **Lab ID: 92280507016** Collected: 12/15/15 14:30 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 17:02	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:02	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 17:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 17:02	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 17:02	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 17:02	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 17:02	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 17:02	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 17:02	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 17:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 17:02	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 17:02	75-00-3	
Chloroform	**3.9**	ug/L	1.0	0.14	1		12/22/15 17:02	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 17:02	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 17:02	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:02	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 17:02	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 17:02	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 17:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 17:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:02	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 17:02	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 17:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 17:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 17:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 17:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 17:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 17:02	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 17:02	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 17:02	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 17:02	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 17:02	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:02	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 17:02	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 17:02	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:02	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 17:02	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 17:02	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 17:02	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 17:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 17:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 17:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 17:02	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 17:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:02	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-3-121515 **Lab ID: 92280507016** Collected: 12/15/15 14:30 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 17:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 17:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 17:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 17:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 17:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 17:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 17:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 17:02	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 17:02	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 17:02	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 17:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 17:02	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		12/22/15 17:02	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 17:02	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-L-121615 **Lab ID: 92280507017** Collected: 12/16/15 12:30 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 16:45	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:45	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 16:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 16:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 16:45	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 16:45	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 16:45	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 16:45	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 16:45	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 16:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 16:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 16:45	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 16:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 16:45	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 16:45	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 16:45	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 16:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 16:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 16:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:45	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 16:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 16:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 16:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 16:45	75-35-4	
cis-1,2-Dichloroethene	**0.55J**	ug/L	1.0	0.19	1		12/22/15 16:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 16:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 16:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 16:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 16:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 16:45	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 16:45	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 16:45	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 16:45	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:45	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 16:45	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 16:45	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 16:45	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 16:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 16:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 16:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 16:45	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 16:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:45	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-L-121615 **Lab ID: 92280507017** Collected: 12/16/15 12:30 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 16:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 16:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 16:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 16:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 16:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 16:45	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 16:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 16:45	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 16:45	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 16:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 16:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 16:45	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 16:45	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 16:45	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#5-121515 **Lab ID: 92280507018** Collected: 12/16/15 12:55 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 16:28	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:28	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 16:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 16:28	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 16:28	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 16:28	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 16:28	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 16:28	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 16:28	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 16:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 16:28	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 16:28	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 16:28	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 16:28	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 16:28	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:28	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 16:28	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 16:28	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 16:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 16:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:28	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 16:28	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 16:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 16:28	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 16:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 16:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 16:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 16:28	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 16:28	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 16:28	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 16:28	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 16:28	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:28	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 16:28	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 16:28	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:28	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 16:28	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 16:28	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 16:28	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 16:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 16:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 16:28	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 16:28	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 16:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:28	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#5-121515 **Lab ID: 92280507018** Collected: 12/16/15 12:55 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 16:28	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 16:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 16:28	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 16:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 16:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 16:28	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 16:28	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 16:28	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 16:28	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 16:28	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 16:28	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		12/22/15 16:28	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 16:28	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		12/22/15 16:28	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#16-121615 **Lab ID: 92280507019** Collected: 12/16/15 13:07 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 16:12	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:12	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 16:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 16:12	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 16:12	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 16:12	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 16:12	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 16:12	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 16:12	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 16:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 16:12	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 16:12	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 16:12	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 16:12	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 16:12	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 16:12	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 16:12	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 16:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 16:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:12	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 16:12	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 16:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 16:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 16:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 16:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 16:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 16:12	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 16:12	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 16:12	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 16:12	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 16:12	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 16:12	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 16:12	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:12	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 16:12	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 16:12	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 16:12	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 16:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 16:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 16:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 16:12	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 16:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:12	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#16-121615 **Lab ID: 92280507019** Collected: 12/16/15 13:07 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 16:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 16:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 16:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 16:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 16:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 16:12	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 16:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 16:12	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 16:12	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 16:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 16:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		12/22/15 16:12	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		12/22/15 16:12	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 16:12	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-I-121615 **Lab ID: 92280507020** Collected: 12/16/15 13:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 15:55	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:55	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 15:55	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 15:55	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 15:55	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 15:55	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 15:55	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 15:55	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 15:55	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 15:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 15:55	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 15:55	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 15:55	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 15:55	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 15:55	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 15:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 15:55	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 15:55	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 15:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 15:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 15:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 15:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 15:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 15:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 15:55	75-35-4	
cis-1,2-Dichloroethene	**1.1**	ug/L	1.0	0.19	1		12/22/15 15:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 15:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 15:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 15:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 15:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 15:55	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 15:55	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 15:55	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 15:55	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 15:55	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 15:55	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 15:55	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 15:55	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 15:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 15:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 15:55	79-34-5	
Tetrachloroethene	**0.55J**	ug/L	1.0	0.46	1		12/22/15 15:55	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 15:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 15:55	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-I-121615 **Lab ID: 92280507020** Collected: 12/16/15 13:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 15:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 15:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 15:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 15:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 15:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 15:55	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 15:55	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 15:55	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 15:55	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 15:55	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 15:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		12/22/15 15:55	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		12/22/15 15:55	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 15:55	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#3-121615 **Lab ID: 92280507021** Collected: 12/16/15 13:56 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 15:03	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:03	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 15:03	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 15:03	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 15:03	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 15:03	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 15:03	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 15:03	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 15:03	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 15:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 15:03	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 15:03	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 15:03	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 15:03	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 15:03	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 15:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 15:03	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 15:03	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 15:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 15:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 15:03	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 15:03	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 15:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 15:03	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 15:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 15:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 15:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 15:03	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 15:03	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 15:03	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 15:03	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 15:03	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 15:03	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 15:03	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 15:03	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 15:03	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 15:03	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 15:03	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 15:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 15:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 15:03	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 15:03	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 15:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 15:03	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#3-121615 **Lab ID: 92280507021** Collected: 12/16/15 13:56 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 15:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 15:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 15:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 15:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 15:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 15:03	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 15:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 15:03	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 15:03	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 15:03	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 15:03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 15:03	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		12/22/15 15:03	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 15:03	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#15-121615 **Lab ID: 92280507022** Collected: 12/16/15 14:10 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 14:46	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 14:46	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 14:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 14:46	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 14:46	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 14:46	74-83-9	M1
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 14:46	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 14:46	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 14:46	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 14:46	56-23-5	M1
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 14:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 14:46	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 14:46	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 14:46	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 14:46	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 14:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 14:46	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 14:46	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 14:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 14:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 14:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 14:46	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 14:46	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 14:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 14:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 14:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 14:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 14:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 14:46	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 14:46	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 14:46	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 14:46	563-58-6	M1
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 14:46	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 14:46	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 14:46	87-68-3	L3,M0
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 14:46	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 14:46	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 14:46	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 14:46	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 14:46	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 14:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 14:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 14:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 14:46	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 14:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 14:46	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#15-121615 **Lab ID: 92280507022** Collected: 12/16/15 14:10 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 14:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 14:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 14:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 14:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 14:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 14:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 14:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 14:46	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 14:46	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 14:46	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 14:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 14:46	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 14:46	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 14:46	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: DRUM COMPOSITE-121615 **Lab ID: 92280507023** Collected: 12/16/15 16:10 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.0	0.50	2		12/24/15 08:38	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:38	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		12/24/15 08:38	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		12/24/15 08:38	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		12/24/15 08:38	75-25-2	
Bromomethane	ND	ug/L	4.0	0.58	2		12/24/15 08:38	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		12/24/15 08:38	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		12/24/15 08:38	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		12/24/15 08:38	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		12/24/15 08:38	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		12/24/15 08:38	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		12/24/15 08:38	75-00-3	
Chloroform	**0.72J**	ug/L	2.0	0.28	2		12/24/15 08:38	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		12/24/15 08:38	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		12/24/15 08:38	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	4.0	2		12/24/15 08:38	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		12/24/15 08:38	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		12/24/15 08:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		12/24/15 08:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:38	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		12/24/15 08:38	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		12/24/15 08:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	0.48	2		12/24/15 08:38	107-06-2	
1,1-Dichloroethene	**7.1**	ug/L	2.0	1.1	2		12/24/15 08:38	75-35-4	
cis-1,2-Dichloroethene	**155**	ug/L	2.0	0.38	2		12/24/15 08:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		12/24/15 08:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		12/24/15 08:38	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		12/24/15 08:38	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		12/24/15 08:38	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		12/24/15 08:38	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	300	157	2		12/24/15 08:38	123-91-1	L3
Ethylbenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.4	2		12/24/15 08:38	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		12/24/15 08:38	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:38	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1.9	2		12/24/15 08:38	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		12/24/15 08:38	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		12/24/15 08:38	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		12/24/15 08:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	0.66	2		12/24/15 08:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		12/24/15 08:38	79-34-5	
Tetrachloroethene	ND	ug/L	2.0	0.92	2		12/24/15 08:38	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		12/24/15 08:38	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:38	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: DRUM COMPOSITE-121615 **Lab ID: 92280507023** Collected: 12/16/15 16:10 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		12/24/15 08:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	2.0	0.96	2		12/24/15 08:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		12/24/15 08:38	79-00-5	
Trichloroethene	**779**	ug/L	10.0	4.7	10		12/24/15 14:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	0.40	2		12/24/15 08:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		12/24/15 08:38	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		12/24/15 08:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		12/24/15 08:38	108-67-8	
Vinyl chloride	**3.6**	ug/L	2.0	1.2	2		12/24/15 08:38	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		12/24/15 08:38	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		12/24/15 08:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		2		12/24/15 08:38	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		2		12/24/15 08:38	17060-07-0	
Toluene-d8 (S)	99	%	70-130		2		12/24/15 08:38	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: TRIP BLANK **Lab ID: 92280507024** Collected: 12/15/15 00:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 13:38	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 13:38	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 13:38	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 13:38	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 13:38	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 13:38	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 13:38	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 13:38	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 13:38	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 13:38	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 13:38	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 13:38	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 13:38	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 13:38	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 13:38	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 13:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 13:38	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 13:38	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 13:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 13:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 13:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 13:38	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 13:38	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 13:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 13:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 13:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 13:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 13:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 13:38	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 13:38	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 13:38	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 13:38	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 13:38	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 13:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 13:38	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 13:38	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 13:38	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 13:38	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 13:38	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 13:38	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 13:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 13:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 13:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 13:38	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 13:38	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 13:38	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: TRIP BLANK **Lab ID: 92280507024** Collected: 12/15/15 00:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 13:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 13:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 13:38	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 13:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 13:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 13:38	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 13:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 13:38	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 13:38	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 13:38	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 13:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		12/22/15 13:38	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		12/22/15 13:38	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 13:38	2037-26-5	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34862 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507014, 92280507015, 92280507016, 92280507017, 92280507018, 92280507019, 92280507020, 92280507021, 92280507022, 92280507024

METHOD BLANK: 1635247 Matrix: Water
Associated Lab Samples: 92280507014, 92280507015, 92280507016, 92280507017, 92280507018, 92280507019, 92280507020, 92280507021, 92280507022, 92280507024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/22/15 12:13	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/22/15 12:13	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/22/15 12:13	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/22/15 12:13	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/22/15 12:13	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/22/15 12:13	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/22/15 12:13	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/22/15 12:13	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/22/15 12:13	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/22/15 12:13	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/22/15 12:13	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/22/15 12:13	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/22/15 12:13	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/22/15 12:13	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/22/15 12:13	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/22/15 12:13	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/22/15 12:13	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/22/15 12:13	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/22/15 12:13	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/22/15 12:13	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	78.4	12/22/15 12:13	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/22/15 12:13	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/22/15 12:13	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/22/15 12:13	
Benzene	ug/L	ND	1.0	0.25	12/22/15 12:13	
Bromobenzene	ug/L	ND	1.0	0.30	12/22/15 12:13	
Bromochloromethane	ug/L	ND	1.0	0.17	12/22/15 12:13	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/22/15 12:13	
Bromoform	ug/L	ND	1.0	0.26	12/22/15 12:13	
Bromomethane	ug/L	ND	2.0	0.29	12/22/15 12:13	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/22/15 12:13	
Chlorobenzene	ug/L	ND	1.0	0.23	12/22/15 12:13	
Chloroethane	ug/L	ND	1.0	0.54	12/22/15 12:13	
Chloroform	ug/L	ND	1.0	0.14	12/22/15 12:13	
Chloromethane	ug/L	ND	1.0	0.11	12/22/15 12:13	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/22/15 12:13	
Dibromomethane	ug/L	ND	1.0	0.21	12/22/15 12:13	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/22/15 12:13	
Ethylbenzene	ug/L	ND	1.0	0.30	12/22/15 12:13	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/22/15 12:13	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1635247 Matrix: Water
Associated Lab Samples: 92280507014, 92280507015, 92280507016, 92280507017, 92280507018, 92280507019, 92280507020, 92280507021, 92280507022, 92280507024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/22/15 12:13	
m&p-Xylene	ug/L	ND	2.0	0.66	12/22/15 12:13	
Methylene Chloride	ug/L	ND	2.0	0.97	12/22/15 12:13	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/22/15 12:13	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/22/15 12:13	
Naphthalene	ug/L	ND	1.0	0.24	12/22/15 12:13	
o-Xylene	ug/L	ND	1.0	0.23	12/22/15 12:13	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/22/15 12:13	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/22/15 12:13	
Styrene	ug/L	ND	1.0	0.26	12/22/15 12:13	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/22/15 12:13	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/22/15 12:13	
Toluene	ug/L	ND	1.0	0.26	12/22/15 12:13	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/22/15 12:13	
Trichloroethene	ug/L	ND	1.0	0.47	12/22/15 12:13	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/22/15 12:13	
Vinyl chloride	ug/L	ND	1.0	0.62	12/22/15 12:13	
1,2-Dichloroethane-d4 (S)	%	108	70-130		12/22/15 12:13	
4-Bromofluorobenzene (S)	%	103	70-130		12/22/15 12:13	
Toluene-d8 (S)	%	100	70-130		12/22/15 12:13	

LABORATORY CONTROL SAMPLE: 1635248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.6	111	70-130	
1,1,1-Trichloroethane	ug/L	50	57.0	114	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.0	110	70-130	
1,1,2-Trichloroethane	ug/L	50	50.0	100	70-130	
1,1-Dichloroethane	ug/L	50	51.9	104	70-130	
1,1-Dichloroethene	ug/L	50	54.5	109	70-132	
1,1-Dichloropropene	ug/L	50	58.6	117	70-130	
1,2,3-Trichlorobenzene	ug/L	50	55.4	111	70-135	
1,2,3-Trichloropropane	ug/L	50	52.5	105	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.9	106	70-134	
1,2,4-Trimethylbenzene	ug/L	50	54.8	110	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	50.7	101	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	52.2	104	70-130	
1,2-Dichloroethane	ug/L	50	48.3	97	70-130	
1,2-Dichloropropane	ug/L	50	51.1	102	70-130	
1,3,5-Trimethylbenzene	ug/L	50	55.0	110	70-130	
1,3-Dichlorobenzene	ug/L	50	55.2	110	70-130	
1,3-Dichloropropane	ug/L	50	52.9	106	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1635248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	54.7	109	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1030	103	71-125	
2,2-Dichloropropane	ug/L	50	61.2	122	58-145	
2-Chlorotoluene	ug/L	50	57.3	115	70-130	
4-Chlorotoluene	ug/L	50	54.9	110	70-130	
Benzene	ug/L	50	52.4	105	70-130	
Bromobenzene	ug/L	50	56.6	113	70-130	
Bromochloromethane	ug/L	50	51.7	103	70-130	
Bromodichloromethane	ug/L	50	55.3	111	70-130	
Bromoform	ug/L	50	45.2	90	70-130	
Bromomethane	ug/L	50	49.7	99	54-130	
Carbon tetrachloride	ug/L	50	59.1	118	70-132	
Chlorobenzene	ug/L	50	55.3	111	70-130	
Chloroethane	ug/L	50	50.5	101	64-134	
Chloroform	ug/L	50	55.8	112	70-130	
Chloromethane	ug/L	50	48.1	96	64-130	
cis-1,2-Dichloroethene	ug/L	50	51.3	103	70-131	
Dibromomethane	ug/L	50	50.8	102	70-131	
Dichlorodifluoromethane	ug/L	50	50.5	101	56-130	
Ethylbenzene	ug/L	50	57.0	114	70-130	
Hexachloro-1,3-butadiene	ug/L	50	68.5	137	70-130	L0
Isopropylbenzene (Cumene)	ug/L	50	60.3	121	70-130	
m&p-Xylene	ug/L	100	115	115	70-130	
Methylene Chloride	ug/L	50	44.0	88	63-130	
n-Butylbenzene	ug/L	50	60.7	121	70-130	
n-Propylbenzene	ug/L	50	56.4	113	70-130	
Naphthalene	ug/L	50	51.9	104	70-138	
o-Xylene	ug/L	50	55.7	111	70-130	
p-Isopropyltoluene	ug/L	50	56.2	112	70-130	
sec-Butylbenzene	ug/L	50	58.0	116	70-130	
Styrene	ug/L	50	57.2	114	70-130	
tert-Butylbenzene	ug/L	50	45.5	91	70-130	
Tetrachloroethene	ug/L	50	53.3	107	70-130	
Toluene	ug/L	50	55.4	111	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.3	105	70-130	
Trichloroethene	ug/L	50	54.5	109	70-130	
Trichlorofluoromethane	ug/L	50	55.9	112	62-133	
Vinyl chloride	ug/L	50	52.2	104	50-150	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1635249

Parameter	Units	92280507022 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	23.1	115	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	25.5	127	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	22.8	114	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	22.2	111	70-130	
1,1-Dichloroethane	ug/L	ND	20	23.3	116	70-130	
1,1-Dichloroethene	ug/L	ND	20	24.1	120	70-166	
1,1-Dichloropropene	ug/L	ND	20	26.3	132	70-130	M1
1,2,3-Trichlorobenzene	ug/L	ND	20	20.8	104	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	22.7	114	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	20.8	104	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	22.1	110	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	22.0	110	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.0	110	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.8	104	70-130	
1,2-Dichloroethane	ug/L	ND	20	21.3	106	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.5	113	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	22.5	113	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	22.3	112	70-130	
1,3-Dichloropropane	ug/L	ND	20	22.7	113	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	23.1	115	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	375	94	70-130	
2,2-Dichloropropane	ug/L	ND	20	24.3	122	70-130	
2-Chlorotoluene	ug/L	ND	20	22.2	111	70-130	
4-Chlorotoluene	ug/L	ND	20	23.2	116	70-130	
Benzene	ug/L	ND	20	23.0	115	70-148	
Bromobenzene	ug/L	ND	20	23.2	116	70-130	
Bromochloromethane	ug/L	ND	20	23.3	116	70-130	
Bromodichloromethane	ug/L	ND	20	23.5	117	70-130	
Bromoform	ug/L	ND	20	19.5	97	70-130	
Bromomethane	ug/L	ND	20	13.2	66	70-130	M1
Carbon tetrachloride	ug/L	ND	20	26.4	132	70-130	M1
Chlorobenzene	ug/L	ND	20	23.6	118	70-146	
Chloroethane	ug/L	ND	20	21.4	107	70-130	
Chloroform	ug/L	ND	20	24.0	120	70-130	
Chloromethane	ug/L	ND	20	19.5	98	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	23.1	116	70-130	
Dibromomethane	ug/L	ND	20	22.3	112	70-130	
Dichlorodifluoromethane	ug/L	ND	20	19.9	100	70-130	
Ethylbenzene	ug/L	ND	20	24.4	122	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	26.5	133	70-130	M0
Isopropylbenzene (Cumene)	ug/L	ND	20	25.2	126	70-130	
m&p-Xylene	ug/L	ND	40	48.2	120	70-130	
Methylene Chloride	ug/L	ND	20	15.7	79	70-130	
n-Butylbenzene	ug/L	ND	20	23.3	117	70-130	
n-Propylbenzene	ug/L	ND	20	23.1	116	70-130	
Naphthalene	ug/L	ND	20	21.2	106	70-130	
o-Xylene	ug/L	ND	20	23.4	117	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1635249

Parameter	Units	92280507022 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	ND	20	22.2	111	70-130	
sec-Butylbenzene	ug/L	ND	20	23.7	118	70-130	
Styrene	ug/L	ND	20	23.8	119	70-130	
tert-Butylbenzene	ug/L	ND	20	18.3	92	70-130	
Tetrachloroethene	ug/L	ND	20	22.9	115	70-130	
Toluene	ug/L	ND	20	24.3	121	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.1	116	70-130	
Trichloroethene	ug/L	ND	20	24.6	123	69-151	
Trichlorofluoromethane	ug/L	ND	20	25.2	126	70-130	
Vinyl chloride	ug/L	ND	20	22.6	113	70-130	
1,2-Dichloroethane-d4 (S)	%				108	70-130	
4-Bromofluorobenzene (S)	%				106	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1635250

Parameter	Units	92280507021 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

SAMPLE DUPLICATE: 1635250

Parameter	Units	92280507021 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	106	109	3		
4-Bromofluorobenzene (S)	%	104	104	0		
Toluene-d8 (S)	%	100	101	1		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34886 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507001, 92280507002, 92280507009, 92280507010, 92280507011

METHOD BLANK: 1635813 Matrix: Water
Associated Lab Samples: 92280507001, 92280507002, 92280507009, 92280507010, 92280507011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/22/15 12:30	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/22/15 12:30	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/22/15 12:30	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/22/15 12:30	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/22/15 12:30	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/22/15 12:30	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/22/15 12:30	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/22/15 12:30	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/22/15 12:30	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/22/15 12:30	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/22/15 12:30	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/22/15 12:30	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/22/15 12:30	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/22/15 12:30	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/22/15 12:30	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/22/15 12:30	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/22/15 12:30	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/22/15 12:30	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/22/15 12:30	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/22/15 12:30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	78.4	12/22/15 12:30	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/22/15 12:30	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/22/15 12:30	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/22/15 12:30	
Benzene	ug/L	ND	1.0	0.25	12/22/15 12:30	
Bromobenzene	ug/L	ND	1.0	0.30	12/22/15 12:30	
Bromochloromethane	ug/L	ND	1.0	0.17	12/22/15 12:30	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/22/15 12:30	
Bromoform	ug/L	ND	1.0	0.26	12/22/15 12:30	
Bromomethane	ug/L	ND	2.0	0.29	12/22/15 12:30	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/22/15 12:30	
Chlorobenzene	ug/L	ND	1.0	0.23	12/22/15 12:30	
Chloroethane	ug/L	ND	1.0	0.54	12/22/15 12:30	
Chloroform	ug/L	ND	1.0	0.14	12/22/15 12:30	
Chloromethane	ug/L	ND	1.0	0.11	12/22/15 12:30	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/22/15 12:30	
Dibromomethane	ug/L	ND	1.0	0.21	12/22/15 12:30	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/22/15 12:30	
Ethylbenzene	ug/L	ND	1.0	0.30	12/22/15 12:30	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/22/15 12:30	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/22/15 12:30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1635813 Matrix: Water
Associated Lab Samples: 92280507001, 92280507002, 92280507009, 92280507010, 92280507011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	2.0	0.66	12/22/15 12:30	
Methylene Chloride	ug/L	ND	2.0	0.97	12/22/15 12:30	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/22/15 12:30	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/22/15 12:30	
Naphthalene	ug/L	ND	1.0	0.24	12/22/15 12:30	
o-Xylene	ug/L	ND	1.0	0.23	12/22/15 12:30	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/22/15 12:30	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/22/15 12:30	
Styrene	ug/L	ND	1.0	0.26	12/22/15 12:30	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/22/15 12:30	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/22/15 12:30	
Toluene	ug/L	ND	1.0	0.26	12/22/15 12:30	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/22/15 12:30	
Trichloroethene	ug/L	ND	1.0	0.47	12/22/15 12:30	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/22/15 12:30	
Vinyl chloride	ug/L	ND	1.0	0.62	12/22/15 12:30	
1,2-Dichloroethane-d4 (S)	%	107	70-130		12/22/15 12:30	
4-Bromofluorobenzene (S)	%	105	70-130		12/22/15 12:30	
Toluene-d8 (S)	%	100	70-130		12/22/15 12:30	

LABORATORY CONTROL SAMPLE: 1635814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.4	111	70-130	
1,1,1-Trichloroethane	ug/L	50	56.2	112	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	56.0	112	70-130	
1,1,2-Trichloroethane	ug/L	50	50.7	101	70-130	
1,1-Dichloroethane	ug/L	50	51.5	103	70-130	
1,1-Dichloroethene	ug/L	50	54.7	109	70-132	
1,1-Dichloropropene	ug/L	50	59.1	118	70-130	
1,2,3-Trichlorobenzene	ug/L	50	54.3	109	70-135	
1,2,3-Trichloropropane	ug/L	50	55.2	110	70-130	
1,2,4-Trichlorobenzene	ug/L	50	53.6	107	70-134	
1,2,4-Trimethylbenzene	ug/L	50	54.0	108	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.2	102	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	54.0	108	70-130	
1,2-Dichlorobenzene	ug/L	50	51.8	104	70-130	
1,2-Dichloroethane	ug/L	50	48.0	96	70-130	
1,2-Dichloropropane	ug/L	50	50.7	101	70-130	
1,3,5-Trimethylbenzene	ug/L	50	55.2	110	70-130	
1,3-Dichlorobenzene	ug/L	50	54.1	108	70-130	
1,3-Dichloropropane	ug/L	50	54.1	108	70-130	
1,4-Dichlorobenzene	ug/L	50	55.3	111	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1260	126	71-125	L0

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1635814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	61.0	122	58-145	
2-Chlorotoluene	ug/L	50	56.3	113	70-130	
4-Chlorotoluene	ug/L	50	54.7	109	70-130	
Benzene	ug/L	50	52.1	104	70-130	
Bromobenzene	ug/L	50	55.5	111	70-130	
Bromochloromethane	ug/L	50	51.6	103	70-130	
Bromodichloromethane	ug/L	50	55.5	111	70-130	
Bromoform	ug/L	50	45.9	92	70-130	
Bromomethane	ug/L	50	50.3	101	54-130	
Carbon tetrachloride	ug/L	50	58.8	118	70-132	
Chlorobenzene	ug/L	50	55.5	111	70-130	
Chloroethane	ug/L	50	49.4	99	64-134	
Chloroform	ug/L	50	56.0	112	70-130	
Chloromethane	ug/L	50	48.8	98	64-130	
cis-1,2-Dichloroethene	ug/L	50	51.2	102	70-131	
Dibromomethane	ug/L	50	51.5	103	70-131	
Dichlorodifluoromethane	ug/L	50	49.9	100	56-130	
Ethylbenzene	ug/L	50	57.0	114	70-130	
Hexachloro-1,3-butadiene	ug/L	50	67.2	134	70-130	L0
Isopropylbenzene (Cumene)	ug/L	50	61.2	122	70-130	
m&p-Xylene	ug/L	100	115	115	70-130	
Methylene Chloride	ug/L	50	43.3	87	63-130	
n-Butylbenzene	ug/L	50	59.3	119	70-130	
n-Propylbenzene	ug/L	50	55.5	111	70-130	
Naphthalene	ug/L	50	53.7	107	70-138	
o-Xylene	ug/L	50	56.3	113	70-130	
p-Isopropyltoluene	ug/L	50	55.7	111	70-130	
sec-Butylbenzene	ug/L	50	57.4	115	70-130	
Styrene	ug/L	50	57.2	114	70-130	
tert-Butylbenzene	ug/L	50	44.3	89	70-130	
Tetrachloroethene	ug/L	50	54.1	108	70-130	
Toluene	ug/L	50	55.4	111	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.5	105	70-130	
Trichloroethene	ug/L	50	54.9	110	70-130	
Trichlorofluoromethane	ug/L	50	55.6	111	62-133	
Vinyl chloride	ug/L	50	53.2	106	50-150	
1,2-Dichloroethane-d4 (S)	%			104	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1635815

Parameter	Units	92280507011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.3	106	70-130	
1,1,1-Trichloroethane	ug/L	3.1	20	28.2	126	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1635815

Parameter	Units	92280507011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	20	21.1	106	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	20.7	103	70-130	
1,1-Dichloroethane	ug/L	0.39J	20	22.3	109	70-130	
1,1-Dichloroethene	ug/L	30.7	20	52.7	110	70-166	
1,1-Dichloropropene	ug/L	ND	20	24.8	124	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	20.2	101	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	21.0	105	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	19.7	99	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	21.3	107	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20.6	103	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.7	103	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.3	102	70-130	
1,2-Dichloroethane	ug/L	ND	20	20.7	103	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.6	103	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	21.8	109	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	21.6	108	70-130	
1,3-Dichloropropane	ug/L	ND	20	21.4	107	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	21.8	109	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	389	97	70-130	
2,2-Dichloropropane	ug/L	ND	20	24.9	124	70-130	
2-Chlorotoluene	ug/L	ND	20	22.5	113	70-130	
4-Chlorotoluene	ug/L	ND	20	22.2	111	70-130	
Benzene	ug/L	ND	20	21.4	107	70-148	
Bromobenzene	ug/L	ND	20	22.6	113	70-130	
Bromochloromethane	ug/L	ND	20	20.9	104	70-130	
Bromodichloromethane	ug/L	ND	20	22.4	112	70-130	
Bromoform	ug/L	ND	20	18.6	93	70-130	
Bromomethane	ug/L	ND	20	14.2	71	70-130	
Carbon tetrachloride	ug/L	ND	20	24.6	123	70-130	
Chlorobenzene	ug/L	ND	20	22.5	112	70-146	
Chloroethane	ug/L	ND	20	21.0	105	70-130	
Chloroform	ug/L	1.5	20	25.1	118	70-130	
Chloromethane	ug/L	ND	20	17.5	88	70-130	
cis-1,2-Dichloroethene	ug/L	40.1	20	60.9	104	70-130	
Dibromomethane	ug/L	ND	20	20.3	102	70-130	
Dichlorodifluoromethane	ug/L	ND	20	16.4	82	70-130	
Ethylbenzene	ug/L	ND	20	22.8	114	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	27.4	137	70-130	M0
Isopropylbenzene (Cumene)	ug/L	ND	20	23.9	119	70-130	
m&p-Xylene	ug/L	ND	40	46.2	116	70-130	
Methylene Chloride	ug/L	ND	20	14.1	71	70-130	
n-Butylbenzene	ug/L	ND	20	22.6	113	70-130	
n-Propylbenzene	ug/L	ND	20	22.4	112	70-130	
Naphthalene	ug/L	ND	20	20.3	101	70-130	
o-Xylene	ug/L	ND	20	22.2	111	70-130	
p-Isopropyltoluene	ug/L	ND	20	21.8	109	70-130	
sec-Butylbenzene	ug/L	ND	20	22.8	114	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1635815

Parameter	Units	92280507011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	ND	20	22.1	111	70-130	
tert-Butylbenzene	ug/L	ND	20	17.9	90	70-130	
Tetrachloroethene	ug/L	ND	20	22.5	112	70-130	
Toluene	ug/L	ND	20	22.7	113	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	21.7	107	70-130	
Trichlorofluoromethane	ug/L	ND	20	23.2	116	70-130	
Vinyl chloride	ug/L	ND	20	20.8	103	70-130	
1,2-Dichloroethane-d4 (S)	%				109	70-130	
4-Bromofluorobenzene (S)	%				107	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1635816

Parameter	Units	92280507002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	3.1	3.1	1	30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

SAMPLE DUPLICATE: 1635816

Parameter	Units	92280507002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	26.6	25.0	6	30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	6.3	6.2	2	30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	0.94J	0.92J		30	
1,2-Dichloroethane-d4 (S)	%	111	110	1		
4-Bromofluorobenzene (S)	%	103	102	1		
Toluene-d8 (S)	%	101	101	0		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34891 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507003, 92280507004, 92280507005, 92280507006

METHOD BLANK: 1635840 Matrix: Water
Associated Lab Samples: 92280507003, 92280507004, 92280507005, 92280507006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/23/15 00:44	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/23/15 00:44	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/23/15 00:44	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/23/15 00:44	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/23/15 00:44	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/23/15 00:44	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/23/15 00:44	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/23/15 00:44	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/23/15 00:44	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/23/15 00:44	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/23/15 00:44	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/23/15 00:44	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/23/15 00:44	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/23/15 00:44	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/23/15 00:44	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/23/15 00:44	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/23/15 00:44	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/23/15 00:44	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/23/15 00:44	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/23/15 00:44	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/23/15 00:44	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/23/15 00:44	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/23/15 00:44	
Benzene	ug/L	ND	1.0	0.25	12/23/15 00:44	
Bromobenzene	ug/L	ND	1.0	0.30	12/23/15 00:44	
Bromochloromethane	ug/L	ND	1.0	0.17	12/23/15 00:44	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/23/15 00:44	
Bromoform	ug/L	ND	1.0	0.26	12/23/15 00:44	
Bromomethane	ug/L	ND	2.0	0.29	12/23/15 00:44	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/23/15 00:44	
Chlorobenzene	ug/L	ND	1.0	0.23	12/23/15 00:44	
Chloroethane	ug/L	ND	1.0	0.54	12/23/15 00:44	
Chloroform	ug/L	ND	1.0	0.14	12/23/15 00:44	
Chloromethane	ug/L	ND	1.0	0.11	12/23/15 00:44	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/23/15 00:44	
Dibromomethane	ug/L	ND	1.0	0.21	12/23/15 00:44	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/23/15 00:44	
Ethylbenzene	ug/L	ND	1.0	0.30	12/23/15 00:44	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/23/15 00:44	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/23/15 00:44	
m&p-Xylene	ug/L	ND	2.0	0.66	12/23/15 00:44	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1635840 Matrix: Water
Associated Lab Samples: 92280507003, 92280507004, 92280507005, 92280507006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methylene Chloride	ug/L	ND	2.0	0.97	12/23/15 00:44	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/23/15 00:44	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/23/15 00:44	
Naphthalene	ug/L	ND	1.0	0.24	12/23/15 00:44	
o-Xylene	ug/L	ND	1.0	0.23	12/23/15 00:44	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/23/15 00:44	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/23/15 00:44	
Styrene	ug/L	ND	1.0	0.26	12/23/15 00:44	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/23/15 00:44	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/23/15 00:44	
Toluene	ug/L	ND	1.0	0.26	12/23/15 00:44	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/23/15 00:44	
Trichloroethene	ug/L	ND	1.0	0.47	12/23/15 00:44	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/23/15 00:44	
Vinyl chloride	ug/L	ND	1.0	0.62	12/23/15 00:44	
1,2-Dichloroethane-d4 (S)	%	109	70-130		12/23/15 00:44	
4-Bromofluorobenzene (S)	%	103	70-130		12/23/15 00:44	
Toluene-d8 (S)	%	99	70-130		12/23/15 00:44	

LABORATORY CONTROL SAMPLE: 1635841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.9	110	70-130	
1,1,1-Trichloroethane	ug/L	50	59.1	118	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.7	111	70-130	
1,1,2-Trichloroethane	ug/L	50	50.4	101	70-130	
1,1-Dichloroethane	ug/L	50	53.3	107	70-130	
1,1-Dichloroethene	ug/L	50	54.9	110	70-132	
1,1-Dichloropropene	ug/L	50	59.8	120	70-130	
1,2,3-Trichlorobenzene	ug/L	50	54.1	108	70-135	
1,2,3-Trichloropropane	ug/L	50	54.6	109	70-130	
1,2,4-Trichlorobenzene	ug/L	50	53.9	108	70-134	
1,2,4-Trimethylbenzene	ug/L	50	53.4	107	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.5	103	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.7	105	70-130	
1,2-Dichlorobenzene	ug/L	50	53.4	107	70-130	
1,2-Dichloroethane	ug/L	50	50.3	101	70-130	
1,2-Dichloropropane	ug/L	50	51.3	103	70-130	
1,3,5-Trimethylbenzene	ug/L	50	54.6	109	70-130	
1,3-Dichlorobenzene	ug/L	50	54.8	110	70-130	
1,3-Dichloropropane	ug/L	50	52.9	106	70-130	
1,4-Dichlorobenzene	ug/L	50	56.0	112	70-130	
2,2-Dichloropropane	ug/L	50	56.8	114	58-145	
2-Chlorotoluene	ug/L	50	57.3	115	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1635841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/L	50	55.6	111	70-130	
Benzene	ug/L	50	52.1	104	70-130	
Bromobenzene	ug/L	50	56.7	113	70-130	
Bromochloromethane	ug/L	50	52.3	105	70-130	
Bromodichloromethane	ug/L	50	56.3	113	70-130	
Bromoform	ug/L	50	45.2	90	70-130	
Bromomethane	ug/L	50	49.1	98	54-130	
Carbon tetrachloride	ug/L	50	59.4	119	70-132	
Chlorobenzene	ug/L	50	55.2	110	70-130	
Chloroethane	ug/L	50	50.6	101	64-134	
Chloroform	ug/L	50	57.3	115	70-130	
Chloromethane	ug/L	50	48.3	97	64-130	
cis-1,2-Dichloroethene	ug/L	50	52.5	105	70-131	
Dibromomethane	ug/L	50	52.8	106	70-131	
Dichlorodifluoromethane	ug/L	50	48.6	97	56-130	
Ethylbenzene	ug/L	50	56.3	113	70-130	
Hexachloro-1,3-butadiene	ug/L	50	65.5	131	70-130	L0
Isopropylbenzene (Cumene)	ug/L	50	59.7	119	70-130	
m&p-Xylene	ug/L	100	113	113	70-130	
Methylene Chloride	ug/L	50	45.6	91	63-130	
n-Butylbenzene	ug/L	50	58.1	116	70-130	
n-Propylbenzene	ug/L	50	55.2	110	70-130	
Naphthalene	ug/L	50	53.6	107	70-138	
o-Xylene	ug/L	50	55.4	111	70-130	
p-Isopropyltoluene	ug/L	50	54.7	109	70-130	
sec-Butylbenzene	ug/L	50	57.3	115	70-130	
Styrene	ug/L	50	57.2	114	70-130	
tert-Butylbenzene	ug/L	50	44.7	89	70-130	
Tetrachloroethene	ug/L	50	52.8	106	70-130	
Toluene	ug/L	50	55.3	111	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.1	104	70-130	
Trichloroethene	ug/L	50	54.6	109	70-130	
Trichlorofluoromethane	ug/L	50	56.9	114	62-133	
Vinyl chloride	ug/L	50	52.4	105	50-150	
1,2-Dichloroethane-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			98	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34901 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507012, 92280507013

METHOD BLANK: 1636342 Matrix: Water
Associated Lab Samples: 92280507012, 92280507013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/23/15 12:59	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/23/15 12:59	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/23/15 12:59	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/23/15 12:59	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/23/15 12:59	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/23/15 12:59	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/23/15 12:59	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/23/15 12:59	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/23/15 12:59	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/23/15 12:59	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/23/15 12:59	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/23/15 12:59	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/23/15 12:59	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/23/15 12:59	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/23/15 12:59	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/23/15 12:59	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/23/15 12:59	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/23/15 12:59	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/23/15 12:59	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/23/15 12:59	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	78.4	12/23/15 12:59	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/23/15 12:59	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/23/15 12:59	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/23/15 12:59	
Benzene	ug/L	ND	1.0	0.25	12/23/15 12:59	
Bromobenzene	ug/L	ND	1.0	0.30	12/23/15 12:59	
Bromochloromethane	ug/L	ND	1.0	0.17	12/23/15 12:59	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/23/15 12:59	
Bromoform	ug/L	ND	1.0	0.26	12/23/15 12:59	
Bromomethane	ug/L	ND	2.0	0.29	12/23/15 12:59	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/23/15 12:59	
Chlorobenzene	ug/L	ND	1.0	0.23	12/23/15 12:59	
Chloroethane	ug/L	ND	1.0	0.54	12/23/15 12:59	
Chloroform	ug/L	ND	1.0	0.14	12/23/15 12:59	
Chloromethane	ug/L	ND	1.0	0.11	12/23/15 12:59	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/23/15 12:59	
Dibromomethane	ug/L	ND	1.0	0.21	12/23/15 12:59	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/23/15 12:59	
Ethylbenzene	ug/L	ND	1.0	0.30	12/23/15 12:59	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/23/15 12:59	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/23/15 12:59	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1636342 Matrix: Water
Associated Lab Samples: 92280507012, 92280507013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	2.0	0.66	12/23/15 12:59	
Methylene Chloride	ug/L	ND	2.0	0.97	12/23/15 12:59	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/23/15 12:59	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/23/15 12:59	
Naphthalene	ug/L	ND	1.0	0.24	12/23/15 12:59	
o-Xylene	ug/L	ND	1.0	0.23	12/23/15 12:59	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/23/15 12:59	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/23/15 12:59	
Styrene	ug/L	ND	1.0	0.26	12/23/15 12:59	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/23/15 12:59	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/23/15 12:59	
Toluene	ug/L	ND	1.0	0.26	12/23/15 12:59	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/23/15 12:59	
Trichloroethene	ug/L	ND	1.0	0.47	12/23/15 12:59	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/23/15 12:59	
Vinyl chloride	ug/L	ND	1.0	0.62	12/23/15 12:59	
1,2-Dichloroethane-d4 (S)	%	106	70-130		12/23/15 12:59	
4-Bromofluorobenzene (S)	%	105	70-130		12/23/15 12:59	
Toluene-d8 (S)	%	102	70-130		12/23/15 12:59	

LABORATORY CONTROL SAMPLE: 1636343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.4	109	70-130	
1,1,1-Trichloroethane	ug/L	50	57.0	114	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	54.4	109	70-130	
1,1,2-Trichloroethane	ug/L	50	51.5	103	70-130	
1,1-Dichloroethane	ug/L	50	52.1	104	70-130	
1,1-Dichloroethene	ug/L	50	52.2	104	70-132	
1,1-Dichloropropene	ug/L	50	58.2	116	70-130	
1,2,3-Trichlorobenzene	ug/L	50	53.7	107	70-135	
1,2,3-Trichloropropane	ug/L	50	51.6	103	70-130	
1,2,4-Trichlorobenzene	ug/L	50	51.7	103	70-134	
1,2,4-Trimethylbenzene	ug/L	50	53.6	107	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.4	97	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.0	104	70-130	
1,2-Dichlorobenzene	ug/L	50	52.6	105	70-130	
1,2-Dichloroethane	ug/L	50	48.5	97	70-130	
1,2-Dichloropropane	ug/L	50	50.4	101	70-130	
1,3,5-Trimethylbenzene	ug/L	50	54.0	108	70-130	
1,3-Dichlorobenzene	ug/L	50	54.2	108	70-130	
1,3-Dichloropropane	ug/L	50	51.8	104	70-130	
1,4-Dichlorobenzene	ug/L	50	55.1	110	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	974	97	71-125	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1636343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	61.9	124	58-145	
2-Chlorotoluene	ug/L	50	55.5	111	70-130	
4-Chlorotoluene	ug/L	50	54.7	109	70-130	
Benzene	ug/L	50	51.2	102	70-130	
Bromobenzene	ug/L	50	55.0	110	70-130	
Bromochloromethane	ug/L	50	51.4	103	70-130	
Bromodichloromethane	ug/L	50	55.5	111	70-130	
Bromoform	ug/L	50	44.6	89	70-130	
Bromomethane	ug/L	50	49.1	98	54-130	
Carbon tetrachloride	ug/L	50	60.0	120	70-132	
Chlorobenzene	ug/L	50	54.1	108	70-130	
Chloroethane	ug/L	50	47.6	95	64-134	
Chloroform	ug/L	50	55.2	110	70-130	
Chloromethane	ug/L	50	43.9	88	64-130	
cis-1,2-Dichloroethene	ug/L	50	50.8	102	70-131	
Dibromomethane	ug/L	50	52.9	106	70-131	
Dichlorodifluoromethane	ug/L	50	40.9	82	56-130	
Ethylbenzene	ug/L	50	54.9	110	70-130	
Hexachloro-1,3-butadiene	ug/L	50	66.2	132	70-130	L0
Isopropylbenzene (Cumene)	ug/L	50	58.8	118	70-130	
m&p-Xylene	ug/L	100	112	112	70-130	
Methylene Chloride	ug/L	50	41.6	83	63-130	
n-Butylbenzene	ug/L	50	58.6	117	70-130	
n-Propylbenzene	ug/L	50	54.8	110	70-130	
Naphthalene	ug/L	50	50.4	101	70-138	
o-Xylene	ug/L	50	55.2	110	70-130	
p-Isopropyltoluene	ug/L	50	55.1	110	70-130	
sec-Butylbenzene	ug/L	50	56.9	114	70-130	
Styrene	ug/L	50	56.4	113	70-130	
tert-Butylbenzene	ug/L	50	43.7	87	70-130	
Tetrachloroethene	ug/L	50	52.6	105	70-130	
Toluene	ug/L	50	55.1	110	70-130	
trans-1,2-Dichloroethene	ug/L	50	51.0	102	70-130	
Trichloroethene	ug/L	50	55.2	110	70-130	
Trichlorofluoromethane	ug/L	50	54.7	109	62-133	
Vinyl chloride	ug/L	50	48.3	97	50-150	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1636344

Parameter	Units	92280540008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	23.4	117	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	26.4	132	70-130	M1

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1636344

Parameter	Units	92280540008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	20	23.4	117	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	22.3	112	70-130	
1,1-Dichloroethane	ug/L	ND	20	23.6	118	70-130	
1,1-Dichloroethene	ug/L	ND	20	25.1	126	70-166	
1,1-Dichloropropene	ug/L	ND	20	26.5	133	70-130	M1
1,2,3-Trichlorobenzene	ug/L	ND	20	19.8	99	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	23.5	118	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	19.9	100	70-130	
1,2,4-Trimethylbenzene	ug/L	0.0047 mg/L	20	27.5	114	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	23.2	116	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.2	111	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	22.5	112	70-130	
1,2-Dichloroethane	ug/L	ND	20	21.7	107	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.4	112	70-130	
1,3,5-Trimethylbenzene	ug/L	0.0013 mg/L	20	24.2	115	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	23.3	117	70-130	
1,3-Dichloropropane	ug/L	ND	20	22.6	113	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	23.5	117	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	411	103	70-130	
2,2-Dichloropropane	ug/L	ND	20	24.4	122	70-130	
2-Chlorotoluene	ug/L	ND	20	23.9	119	70-130	
4-Chlorotoluene	ug/L	ND	20	23.6	118	70-130	
Benzene	ug/L	ND	20	24.0	120	70-148	
Bromobenzene	ug/L	ND	20	23.8	119	70-130	
Bromochloromethane	ug/L	ND	20	23.1	115	70-130	
Bromodichloromethane	ug/L	ND	20	24.3	122	70-130	
Bromoform	ug/L	ND	20	20.2	101	70-130	
Bromomethane	ug/L	ND	20	11.7	58	70-130	M1
Carbon tetrachloride	ug/L	ND	20	26.7	133	70-130	M1
Chlorobenzene	ug/L	ND	20	24.1	121	70-146	
Chloroethane	ug/L	ND	20	22.9	115	70-130	
Chloroform	ug/L	ND	20	25.8	129	70-130	
Chloromethane	ug/L	ND	20	16.0	80	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	23.6	118	70-130	
Dibromomethane	ug/L	ND	20	22.6	113	70-130	
Dichlorodifluoromethane	ug/L	ND	20	19.4	97	70-130	
Ethylbenzene	ug/L	0.0052 mg/L	20	29.9	123	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	24.8	124	70-130	
Isopropylbenzene (Cumene)	ug/L	ND	20	25.8	127	70-130	
m&p-Xylene	ug/L	0.013 mg/L	40	63.3	125	70-130	
Methylene Chloride	ug/L	ND	20	15.8	79	70-130	
n-Butylbenzene	ug/L	ND	20	23.0	115	70-130	
n-Propylbenzene	ug/L	ND	20	23.5	115	70-130	
Naphthalene	ug/L	0.0036 mg/L	20	25.9	112	70-130	
o-Xylene	ug/L	0.011 mg/L	20	34.9	120	70-130	
p-Isopropyltoluene	ug/L	ND	20	21.9	108	70-130	
sec-Butylbenzene	ug/L	ND	20	22.7	113	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1636344

Parameter	Units	92280540008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	ND	20	24.6	123	70-130	
tert-Butylbenzene	ug/L	ND	20	18.2	91	70-130	
Tetrachloroethene	ug/L	ND	20	23.4	117	70-130	
Toluene	ug/L	0.0087 mg/L	20	34.0	127	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.4	117	70-130	
Trichloroethene	ug/L	ND	20	25.4	127	69-151	
Trichlorofluoromethane	ug/L	ND	20	25.2	126	70-130	
Vinyl chloride	ug/L	ND	20	22.1	111	70-130	
1,2-Dichloroethane-d4 (S)	%				105	70-130	
4-Bromofluorobenzene (S)	%				109	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1636345

Parameter	Units	92280540010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	0.45J		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	0.0017 mg/L	1.8	5	30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

SAMPLE DUPLICATE: 1636345

Parameter	Units	92280540010 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	0.012 mg/L	11.9	2	30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	0.24J		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	0.37J		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	108	1		
4-Bromofluorobenzene (S)	%	110	111	1		
Toluene-d8 (S)	%	101	101	0		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34912 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507007, 92280507008, 92280507023

METHOD BLANK: 1636739 Matrix: Water
Associated Lab Samples: 92280507007, 92280507008, 92280507023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/24/15 01:13	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/24/15 01:13	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/24/15 01:13	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/24/15 01:13	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/24/15 01:13	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/24/15 01:13	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/24/15 01:13	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/24/15 01:13	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/24/15 01:13	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/24/15 01:13	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/24/15 01:13	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/24/15 01:13	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/24/15 01:13	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/24/15 01:13	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/24/15 01:13	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/24/15 01:13	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/24/15 01:13	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/24/15 01:13	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/24/15 01:13	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/24/15 01:13	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	78.4	12/24/15 01:13	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/24/15 01:13	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/24/15 01:13	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/24/15 01:13	
Benzene	ug/L	ND	1.0	0.25	12/24/15 01:13	
Bromobenzene	ug/L	ND	1.0	0.30	12/24/15 01:13	
Bromochloromethane	ug/L	ND	1.0	0.17	12/24/15 01:13	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/24/15 01:13	
Bromoform	ug/L	ND	1.0	0.26	12/24/15 01:13	
Bromomethane	ug/L	ND	2.0	0.29	12/24/15 01:13	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/24/15 01:13	
Chlorobenzene	ug/L	ND	1.0	0.23	12/24/15 01:13	
Chloroethane	ug/L	ND	1.0	0.54	12/24/15 01:13	
Chloroform	ug/L	ND	1.0	0.14	12/24/15 01:13	
Chloromethane	ug/L	ND	1.0	0.11	12/24/15 01:13	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/24/15 01:13	
Dibromomethane	ug/L	ND	1.0	0.21	12/24/15 01:13	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/24/15 01:13	
Ethylbenzene	ug/L	ND	1.0	0.30	12/24/15 01:13	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/24/15 01:13	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/24/15 01:13	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1636739 Matrix: Water
Associated Lab Samples: 92280507007, 92280507008, 92280507023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	2.0	0.66	12/24/15 01:13	
Methylene Chloride	ug/L	ND	2.0	0.97	12/24/15 01:13	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/24/15 01:13	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/24/15 01:13	
Naphthalene	ug/L	ND	1.0	0.24	12/24/15 01:13	
o-Xylene	ug/L	ND	1.0	0.23	12/24/15 01:13	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/24/15 01:13	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/24/15 01:13	
Styrene	ug/L	ND	1.0	0.26	12/24/15 01:13	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/24/15 01:13	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/24/15 01:13	
Toluene	ug/L	ND	1.0	0.26	12/24/15 01:13	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/24/15 01:13	
Trichloroethene	ug/L	ND	1.0	0.47	12/24/15 01:13	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/24/15 01:13	
Vinyl chloride	ug/L	ND	1.0	0.62	12/24/15 01:13	
1,2-Dichloroethane-d4 (S)	%	105	70-130		12/24/15 01:13	
4-Bromofluorobenzene (S)	%	106	70-130		12/24/15 01:13	
Toluene-d8 (S)	%	101	70-130		12/24/15 01:13	

LABORATORY CONTROL SAMPLE: 1636740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.2	102	70-130	
1,1,1-Trichloroethane	ug/L	50	54.5	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.4	101	70-130	
1,1,2-Trichloroethane	ug/L	50	48.8	98	70-130	
1,1-Dichloroethane	ug/L	50	49.2	98	70-130	
1,1-Dichloroethene	ug/L	50	50.8	102	70-132	
1,1-Dichloropropene	ug/L	50	55.7	111	70-130	
1,2,3-Trichlorobenzene	ug/L	50	49.7	99	70-135	
1,2,3-Trichloropropane	ug/L	50	49.2	98	70-130	
1,2,4-Trichlorobenzene	ug/L	50	49.3	99	70-134	
1,2,4-Trimethylbenzene	ug/L	50	49.7	99	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	49.3	99	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	49.6	99	70-130	
1,2-Dichlorobenzene	ug/L	50	48.2	96	70-130	
1,2-Dichloroethane	ug/L	50	45.6	91	70-130	
1,2-Dichloropropane	ug/L	50	48.8	98	70-130	
1,3,5-Trimethylbenzene	ug/L	50	49.8	100	70-130	
1,3-Dichlorobenzene	ug/L	50	50.1	100	70-130	
1,3-Dichloropropane	ug/L	50	48.6	97	70-130	
1,4-Dichlorobenzene	ug/L	50	51.1	102	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1310	131	71-125	L0

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1636740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	53.4	107	58-145	
2-Chlorotoluene	ug/L	50	51.8	104	70-130	
4-Chlorotoluene	ug/L	50	50.5	101	70-130	
Benzene	ug/L	50	49.5	99	70-130	
Bromobenzene	ug/L	50	51.5	103	70-130	
Bromochloromethane	ug/L	50	50.2	100	70-130	
Bromodichloromethane	ug/L	50	53.0	106	70-130	
Bromoform	ug/L	50	42.1	84	70-130	
Bromomethane	ug/L	50	36.4	73	54-130	
Carbon tetrachloride	ug/L	50	57.3	115	70-132	
Chlorobenzene	ug/L	50	50.5	101	70-130	
Chloroethane	ug/L	50	45.6	91	64-134	
Chloroform	ug/L	50	53.1	106	70-130	
Chloromethane	ug/L	50	38.5	77	64-130	
cis-1,2-Dichloroethene	ug/L	50	48.6	97	70-131	
Dibromomethane	ug/L	50	50.2	100	70-131	
Dichlorodifluoromethane	ug/L	50	50.4	101	56-130	
Ethylbenzene	ug/L	50	51.7	103	70-130	
Hexachloro-1,3-butadiene	ug/L	50	64.2	128	70-130	
Isopropylbenzene (Cumene)	ug/L	50	54.0	108	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methylene Chloride	ug/L	50	40.0	80	63-130	
n-Butylbenzene	ug/L	50	51.8	104	70-130	
n-Propylbenzene	ug/L	50	50.8	102	70-130	
Naphthalene	ug/L	50	50.7	101	70-138	
o-Xylene	ug/L	50	51.1	102	70-130	
p-Isopropyltoluene	ug/L	50	49.1	98	70-130	
sec-Butylbenzene	ug/L	50	51.9	104	70-130	
Styrene	ug/L	50	52.4	105	70-130	
tert-Butylbenzene	ug/L	50	40.7	81	70-130	
Tetrachloroethene	ug/L	50	49.4	99	70-130	
Toluene	ug/L	50	53.4	107	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.8	98	70-130	
Trichloroethene	ug/L	50	53.2	106	70-130	
Trichlorofluoromethane	ug/L	50	54.1	108	62-133	
Vinyl chloride	ug/L	50	50.1	100	50-150	
1,2-Dichloroethane-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			110	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34816 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92280507001, 92280507002, 92280507003, 92280507004, 92280507005, 92280507006, 92280507007, 92280507008

METHOD BLANK: 1634017 Matrix: Water
Associated Lab Samples: 92280507001, 92280507002, 92280507003, 92280507004, 92280507005, 92280507006, 92280507007, 92280507008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	1.9	12/20/15 13:13	
1,2-Dichloroethane-d4 (S)	%	105	50-150		12/20/15 13:13	
Toluene-d8 (S)	%	96	50-150		12/20/15 13:13	

LABORATORY CONTROL SAMPLE: 1634018

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.4	92	71-125	
1,2-Dichloroethane-d4 (S)	%			104	50-150	
Toluene-d8 (S)	%			95	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1634019 1634020

Parameter	Units	92280269005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	0.019 mg/L	20	20	34.4	32.5	77	67	50-150	6	30	
1,2-Dichloroethane-d4 (S)	%						103	104	50-150		150	
Toluene-d8 (S)	%						96	97	50-150		150	

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QUALIFIERS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280507001	**MW-27-121515**	EPA 8260	MSV/34886		
92280507002	**MW-28-121515**	EPA 8260	MSV/34886		
92280507003	**MW-20-121515**	EPA 8260	MSV/34891		
92280507004	**MW-25-121615**	EPA 8260	MSV/34891		
92280507005	**MW-19-121615**	EPA 8260	MSV/34891		
92280507006	**MW-14-121615**	EPA 8260	MSV/34891		
92280507007	**MW-5-121615**	EPA 8260	MSV/34912		
92280507008	**DUP-01-121615**	EPA 8260	MSV/34912		
92280507009	**MW-22-121515**	EPA 8260	MSV/34886		
92280507010	**MASON BRANCH#2-121515**	EPA 8260	MSV/34886		
92280507011	**SEEP-H-121515**	EPA 8260	MSV/34886		
92280507012	**SEEP-G-121515**	EPA 8260	MSV/34901		
92280507013	**SEEP#2-121515**	EPA 8260	MSV/34901		
92280507014	**SEEP-B-121515**	EPA 8260	MSV/34862		
92280507015	**MW-10-121515**	EPA 8260	MSV/34862		
92280507016	**MW-3-121515**	EPA 8260	MSV/34862		
92280507017	**SEEP-L-121615**	EPA 8260	MSV/34862		
92280507018	**MB#5-121515**	EPA 8260	MSV/34862		
92280507019	**MB#16-121615**	EPA 8260	MSV/34862		
92280507020	**SEEP-I-121615**	EPA 8260	MSV/34862		
92280507021	**MB#3-121615**	EPA 8260	MSV/34862		
92280507022	**MB#15-121615**	EPA 8260	MSV/34862		
92280507023	**DRUM COMPOSITE-121615**	EPA 8260	MSV/34912		
92280507024	**TRIP BLANK**	EPA 8260	MSV/34862		
92280507001	**MW-27-121515**	EPA 8260B Mod.	MSV/34816		
92280507002	**MW-28-121515**	EPA 8260B Mod.	MSV/34816		
92280507003	**MW-20-121515**	EPA 8260B Mod.	MSV/34816		
92280507004	**MW-25-121615**	EPA 8260B Mod.	MSV/34816		
92280507005	**MW-19-121615**	EPA 8260B Mod.	MSV/34816		
92280507006	**MW-14-121615**	EPA 8260B Mod.	MSV/34816		
92280507007	**MW-5-121615**	EPA 8260B Mod.	MSV/34816		
92280507008	**DUP-01-121615**	EPA 8260B Mod.	MSV/34816		

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Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: 26OCT2015 Page 1 of 2
	Document No.: F-CHR-CS-003-rev.17	Issuing Authority: Pace Huntersville Quality Office

Sample Condition Upon Receipt

Client Name: AMEC Foster Wheeler **Project #:** WO# : 92280507

92280507

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:_____

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other:_____

Thermometer Used: ☒ T1505 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.2 **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Correction Factor:** 0.0 °C **Date and Initials of Person Examining Contents:** 12.18

USDA Regulated Soil (☒ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☒ Yes	☐ No	☐ N/A	12. Received a Trip Blank that was not documented on the COC
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	☐ Yes	☐ No	☒ N/A	
Samples checked for dechlorization	☐ Yes	☐ No	☒ N/A	14.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☒ No	☐ N/A	15.
Trip Blank Present?	☒ Yes	☐ No	☐ N/A	16.
Trip Blank Custody Seals Present?	☒ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Rhonda Quinn Date/Time: 12/21/15

Comments/Resolution: E-mailed Mrs Quinn regarding Trip Blank. Mrs Quinn responded requesting we run the Trip Blank.

Project Manager SCURF Review: DB **Date:** 12/18/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

1996134

Section A Required Client Information:

Company:	AMEC Foster Wheeler
Address:	1075 Big Shanty Rd. Ste 100 Kennesaw, GA 30144
Email To:	rhonda.quinn@amec.com
Phone:	770-421-3400 Fax: 770-421-3486
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	Rhonda Quinn
Copy To:	Michelle Barker
Purchase Order No.:	
Project Name:	TK Louisville, GA
Project Number:	6122090322

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: 8260 + 1,4 dioxane	Sim 1,4 dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-22-121515	WT	G			12-15-15	11:07		3				✓					✓			92280507 009
2	MW-27-121515	↓	↓			↓	12:14		6				✓					✓	✓		001
3	MW-28-121515						12:43		6				✓					✓	✓		002
4	Mason Branch#2-121515						1:50		3				✓					✓			010
5	Seep-H-121515						2:05		3				✓					✓			011
6	Seep-G-121515						2:20		3				✓					✓			012
7	Seep#2-121515						2:35		3				✓					✓			013
8	Seep-B-121515						2:50		3				✓					✓			014
9	MW-10-121515						11:48		3				✓					✓			015
10	MW-3-121515						1430		3				✓					✓			016
11	MW-20-121515					↓	1735		6				✓					✓	✓		003
12	MW-25-121615	↓	↓			12-16-15	11:52		6				✓					✓	✓		004

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	AMEC	12-17-15	1400		12/17/15	1020	6.2	Y	N	Y
Pace Order #96571										

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jeff Moore

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12-17-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

1996135

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AMEC Foster Wheeler	Report To: Rhonda Quinn	Attention:
Address: 1075 Big Shanty Rd. Ste100 Kennesaw, GA 30144	Copy To: Michelle Barker	Company Name:
		Address:
Email To: rhonda.quinn@amec.com	Purchase Order No.:	Pace Quote Reference:
Phone: 770-421-3400 Fax: 770-421-3486	Project Name: TK Louisville, GA	Pace Project Manager: Kevin Godwin
Requested Due Date/TAT: Standard	Project Number: 6122090322	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test: 8260+1,4 Dioxane	Sim 1,4 Dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		N	N			
1	Seep-L-121615	WT	G			12-16-15	12:30		3				✓					✓				92280507 017
2	MB#5-121615						12:55		3				✓					✓				018
3	MB#16-121615						1:07		3				✓					✓				019
4	Seep-I-121615						1:20		3				✓					✓				020
5	MB#3-121615						1:56		3				✓					✓				021
6	MB#15-121615						2:10		3				✓					✓				022
7	MW-19-121615						11:50		6				✓					✓	✓			005
8	MW-14-121615						1420		6				✓					✓	✓			006
9	MW-5-121615						1600		6				✓					✓	✓			007
10	DUP-01-121615						1200		6				✓					✓	✓			008
11	Drum Composite-121615						4:10		3				✓					✓				023
12	Trip Blank																					024 Trip Blank

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	AMEC	12-17-15	1400		12-17-15	1530	4.2	Y	N	Y
Pace Order# 96571										

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jeff Moore

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12-17-15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-3 Purge** DEPTH TO PRODUCT:_____ DATE: 12/11/15

PURGE METHOD: Low Flow/Low Stress :Pump Bladder Tubing - Teflon-lined TIME:_____

SAMPLE METHOD: Pump - Bladder - Teflon GRAB (x) COMPOSITE ( )

DUP./REP. OF:_____ DEPTH TO WATER: 43.90 DEPTH TO PUMP (btoc) 55'

TOTAL DEPTH: 60

Arrived at: 1305 PURGE VOLUME: 16x.17x3 = 8.2 WELL DIAMETER (inches): 2-IN

Initial PID = _____

Bailing PID = _____

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1320		5.55	22.6	.09	23.8	500 ( )	
1330	1.30	5.56	22.5	.09	9.72	500	44.01
1340	2.60	5.56	22.4	.10	7.21	500	44.07
1350	3.90	5.57	22.5	.10	3.52	500	44.07
1406	5.20	5.59	22.4	.10	2.15	500	44.07
1410	6.50	5.60	22.4	.10	2.35	500	44.07
1420	7.80	5.60	22.4	.10	1.56	500	44.07
1430	9.10	5.60	22.5	.10	1.71	500	44.07

COMMENTS: Sample Time. 1430

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Clear and 70's		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Paul Gazzo	OBSERVER:	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-5 Purge** DEPTH TO PRODUCT:_____ DATE: 12-16-15

PURGE METHOD: Low Flow/Low Stress :Pump - Bladder Tubing Teflon-lined TIME:_____

SAMPLE METHOD: Pump - Bladder Teflon GRAB (x) COMPOSITE ( )

DUP./REP. OF: DUP #1 DEPTH TO WATER: 38.81 DEPTH TO PUMP (btoc) 49

TOTAL DEPTH: 54.0

Arrived at: 1430 PURGE VOLUME: 15.19 X.17X3=8 WELL DIAMETER (inches): 2-IN

Initial PID = _____

Bailing PID = _____

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1440		5.80	21.1	.11	2.73	500 ( )	
1450	1.32	5.95	21.1	.12	1.75	500	38.87
1500	2.64	5.94	21.1	.13	1.25	500	38.87
1510	3.96	5.92	21.1	.12	1.05	500	38.82
1520	5.28	5.91	21.1	.12	2.78	500	38.82
1530	6.60	5.90	21.1	.13	2.58	500	38.82
1540	7.92	5.89	21.1	.13	2.47	500	38.82
1600	9.24	5.89	21.1	.13	2.31	500	38.82

COMMENTS: Sample Time 1600

DUP #1 1200

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION			
WEATHER:			
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:		OBSERVER:	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-10 Purge** DEPTH TO PRODUCT:_____ DATE: 12/16/15

PURGE METHOD: Low Flow/Low Stress :Pump Bladder Tubing - Teflon-lined TIME:_____

SAMPLE METHOD: Pump Bladder Teflon GRAB (x) COMPOSITE ( )

DUP./REP. OF:_____ DEPTH TO WATER: 28.00 DEPTH TO PUMP (btoc)

TOTAL DEPTH: 47.95 90'

Arrived at: 0900 PURGE VOLUME: 19.95 X .17 X 3 = 8.37 WELL DIAMETER (inches):

Initial PID =_____ 2-IN

Bailing PID =_____

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1000		5.48	19.20	.09	4.10	300 ( )	29.97
1012	1.00	5.46	20.1	.06	3.60	300	29.90
1024	2.00	5.56	20.3	.07	1.50	300	29.90
1036	3.00	5.67	20.4	.08	1.47	300	29.90
1048	4.00	5.82	20.5	.09	1.50	300	29.90
1100	5.00	5.83	20.5	.09	1.72	300	29.90
1112	6.00	5.83	20.5	.10	1.96	300	29.90
1124	7.00	5.85	20.5	.10	1.63	300	29.90
1136	8.00	5.88	20.5	.10	1.91	300	29.90
1148	9.00	5.88	20.5	.10	1.75	300	29.90

COMMENTS: Sample Time 1148

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION		
WEATHER:	Clear 70s	
SHIPPED VIA:	FedEX	
SHIPPED TO:	Pace Analytical-Huntersville, NC	
SAMPLER:	JWL GA270	OBSERVER:

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-14 Purge** DEPTH TO PRODUCT:_____ DATE: 12/16/15

PURGE METHOD: Low Flow/Low Stress :Pump Bladder Tubing -Teflon lined TIME:_____

SAMPLE METHOD: Pump Bladder Teflon GRAB (x) COMPOSITE ( )

DUP./REP. OF:_____ DEPTH TO WATER: 65.07 DEPTH TO PUMP (btoc) 75

TOTAL DEPTH: 86.5

Arrived at: 1200 PURGE VOLUME: 21.43 X .17x3 = 10.92 WELL DIAMETER (inches): 2-IN

Initial PID =_____

Bailing PID =_____

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1220		7.15	14.1	.47	64	400 ( )	
1240	2.00	7.17	19.0	.47	48	400	65.09
1300	4.00	7.14	19.1	.46	31	400	65.09
1320	6.00	7.13	19.0	.46	27	400	65.10
1340	8.00	7.18	19.0	.46	10	400	65.10
1400	10.00	7.17	19.0	.46	7.36	400	65.10
1420	12.00	7.17	19.0	.46	6.57	400	65.10

COMMENTS: Sample Time is 1420

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	3	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION		
WEATHER:	Clear And Cold 20s	
SHIPPED VIA:	FedEX	
SHIPPED TO:	Pace Analytical-Huntersville, NC	
SAMPLER:	BH Grizzle	OBSERVER:

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-19 Purge** DEPTH TO PRODUCT:_____ DATE: 12/16/15

PURGE METHOD: Low Flow/Low Stress :Pump Bladder Tubing Teflon lined TIME:_____

SAMPLE METHOD: Pump Bladder Teflon GRAB (x) COMPOSITE ( )

DUP./REP. OF:_____ DEPTH TO WATER: 30.85 DEPTH TO PUMP (btoc) 41

TOTAL DEPTH: 46.5

Arrived at: 1000 PURGE VOLUME: 15.65 x .17 x 3 = 7.9 WELL DIAMETER (inches): 2-IN

Initial PID = _____

Bailing PID = _____

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1030		6.16	18.6	.14	33	400 ( )	
1040	1.00	6.16	19.1	.15	32	400	31.06
1050	2.00	6.52	19.2	.14	28	400	31.07
1100	3.00	6.60	19.2	.15	21	400	31.08
1105	4.00	6.61	19.3	.15	12	400	31.08
1120	5.00	6.63	19.4	.16	7.26	400	31.08
1130	6.00	6.63	19.4	.16	5.37	400	31.08
1140	7.00	6.64	19.4	.16	4.01	400	31.08
1150	8.00	6.63	19.4	.16	4.28		

COMMENTS: Sample Time 1150

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	3	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION		
WEATHER:	Clear And Nice 70s	
SHIPPED VIA:	FedEX	
SHIPPED TO:	Pace Analytical-Huntersville, NC	
SAMPLER: PWL GA270	OBSERVER:	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-20 Purge** DEPTH TO PRODUCT:_____ DATE: 12-15-15

PURGE METHOD: Low Flow/Low Stress :Pump Bladder Tubing-Teflon Lined TIME: 1735

SAMPLE METHOD: Pump Bladder Teflon GRAB (x) COMPOSITE ( )

DUP./REP. OF:_____ DEPTH TO WATER: 83.69 DEPTH TO PUMP (btoc)

TOTAL DEPTH: 107 100

Arrived at: 1500 PURGE VOLUME: 23.31 x .17 x 3 = 11.88 WELL DIAMETER (inches):

Initial PID = 2-IN

Bailing PID = _____

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1515		6.91	21.5	.49	6.42	300 ( )	
1525	1.00	6.98	21.4	.49	3.57	300	83.72
1535	1.60	6.99	21.4	.49	2.08	300	83.72
1545	2.40	6.99	21.3	.49	1.02	300	83.72
1555	3.20	6.99	21.3	.49	5.00	300	83.72
1605	4.00	6.97	21.3	.49	6.00	300	83.75
1615	4.80	6.98	21.2	.49	6.06	300	83.77
1625	5.60	6.98	21.2	.49	5.35	300	83.76
1635	6.40	6.99	21.2	.49	6.21	300	83.77
1645	7.20	6.98	21.2	.48	2.05	300	83.77
1655	8.00	6.98	21.2	.49	2.05	300	83.77
1705	8.80	6.97	21.2	.48	1.25	300	83.78
1715	9.60	6.98	21.2	.48	1.68	300	83.77
1725	10.4	6.98	21.1	.48	1.59	300	83.77
1735	11.20	6.98	21.2	.48	1.06	300	83.77

COMMENTS: Sample Time 1735

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane
40 mL	3	HCL to pH<2	SIM	14 Dioxane

GENERAL INFORMATION			
WEATHER:	Clear And Nice.		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Paul Gazzo	OBSERVER:	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-22-121615 DEPTH TO PRODUCT: NA DATE: 12-15-15

PURGE METHOD: Low Flow/Low Stress :Pump Bladder Tubing - Teflon lined TIME: 11:07

SAMPLE METHOD: Pump Bladder Teflon GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: 90.36 DEPTH TO PUMP (btoc)

TOTAL DEPTH: 114.40 109

114.40-90.36=24.04X.163=3.9X3=11.7

Arrived at: 9:10 PURGE VOLUME: 11.7 WELL DIAMETER (inches):

Initial PID = NA 2-IN

Bailing PID = NA

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 9:15	0.25	6.88	19.2	0.53	27.6	ML (400)	90.62
9:35	2	6.87	19.0	0.54	17.7	400	90.61
9:55	4	6.86	19.1	0.54	10.9	400	90.61
10:15	6	6.84	19.37	0.54	8.76	400	90.61
10:35	8	6.87	19.42	0.54	6.25	400	90.61
10:55	10	6.84	19.63	0.53	4.26	400	90.61
11:05	12	6.86	19.72	0.54	3.27	400	90.61
11:07 - Parameters Stable - Sample							

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓ site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Warm & Sunny - 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-22 DEPTH TO PRODUCT: N/E DATE: 9-30-15

PURGE METHOD: Low Flow/Low Stress :Pump Bladder Tubing Teflon lined TIME: 1600

SAMPLE METHOD: Pump Bladder Teflon GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: 90.74 DEPTH TO PUMP (btoc)

TOTAL DEPTH: 114.15 - 90.74 = 23.41 X .17 = 3.97 X 3 = 11.93 107.0'

Arrived at: _____ PURGE VOLUME: 12.0 WELL DIAMETER (inches):

Initial PID = _____ 2-IN

Bailing PID = _____

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1320	0.25	6.39	21.9	0.59	CLEAR	300 ( )	90.75
1335	1.0	6.61	21.1	0.55	CLOUDY	200	90.75
1348	2.0	6.88	20.7	0.55	CLOUDY	300	90.75
1401	3.0	6.89	20.6	0.54	CLOUDY	300	90.75
1414	4.0	6.84	20.4	0.54	CLOUDY BUT CLEARING	300	90.75
1427	5.0	6.87	21.0	0.53	"	300	90.75
1439	6.0	6.94	21.1	0.53	"	300	90.75
1452	7.0	6.91	21.2	0.54	"	300	90.75
1505	8.0	6.90	21.3	0.54	"	300	90.75
1518	9.0	6.90	21.4	0.53	"	300	90.75
1530	10.0	6.91	21.4	0.53	"	300	90.75
1543	11.0	6.91	21.3	0.53	CLEAR	300	90.75
1556	12.0	6.91	21.3	0.53	CLEAR	300	90.75
1600	Collect Sample						
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION		
WEATHER:	HOT-HUMID-CLOUDY	
SHIPPED VIA:	FedEX	
SHIPPED TO:	Pace Analytical-Huntersville, NC	
SAMPLER: EVER GUILLEN	OBSERVER:	

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-25 ~~Purge~~ 121615 DEPTH TO PRODUCT: NA DATE: 12-16-15

PURGE METHOD: Low Flow/Low Stress :Pump Bladder Tubing - Teflon lined TIME: 11:52

SAMPLE METHOD: Pump Bladder Teflon GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: 75.33 DEPTH TO PUMP (btoc)

TOTAL DEPTH: 107 102

Arrived at: 8:00 PURGE VOLUME: 31.67 x .163 = 5.1 x 3 = 15.5 WELL DIAMETER (inches):

Initial PID = NA 2-IN

Bailing PID = NA Start pump @ 9:00

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 9:05	0.25	6.70	18.3	0.47	343	400 ( )	75.75
9:15	1	7.22	19.8	0.46	273	400	75.7
9:45	3	7.10	20.1	0.45	63.8	400	75.7
9:55	4	7.08	20.1	0.45	34.0	400	75.7
10:15	6	7.07	20.3	0.46	16.4	400	75.7
10:35	8	7.08	20.9	0.46	8.7	400	75.7
10:55	10	7.06	21.2	0.46	8.19	400	75.7
11:15	12	7.06	21.5	0.46	6.99	400	75.7
11:25	13	7.06	21.7	0.46	6.72	400	75.7
11:35	14	7.06	21.8	0.45	5.23	400	75.7
11:45	15	7.06	21.9	0.45	5.27	400	75.7
11:50	15.5	7.06	22	0.45	5.16	400	75.7
11:52-	Parameters	Stable - Sample					

COMMENTS: Pumping @ 4 cycles per minute with recharge @ 5sec & discharge @ 10 Sec

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD		ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓	site-specific Volatiles +1,4 dioxane
40 mL	~~3~~ 3	HCL to pH<2	SIM	✓	14 Dioxane

GENERAL INFORMATION			
WEATHER:	Sunny 55° 70°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

1/10 3/45

11:45

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: MW-27-121515 DEPTH TO PRODUCT: NA DATE: 12-15-15

PURGE METHOD: Low Flow/Low Stress :Pump peristaltic + Teflon lined Tubing TIME: 12:14

SAMPLE METHOD: Pump peristaltic Straw method GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: 4.81 DEPTH TO PUMP (btoc)

TOTAL DEPTH: 10 Tubing @ 8'

Arrived at: 11:45 PURGE VOLUME: 5.19x.04=.2x3=0.6 WELL DIAMETER (inches):

Initial PID = NA 1-IN

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 11:52	0	5.72	16.1	0.05	2.36	330 (ml)	NA
11:57	0.3	4.90	15.5	0.05	1.47	350	NA
12:02	0.6	4.53	15.1	0.04	0.90	350	NA
12:07	0.9	4.54	14.9	0.05	0.76	350	NA
12:12	1.2	4.52	14.7	0.05	0.65	350	NA
12:14-	Parameters stable-		Sample				

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD		ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓	site-specific Volatiles +1,4 dioxane
40 mL	3	HCL to pH<2	SIM	✓	14 Dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & mild 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **MW-28-121515** DEPTH TO PRODUCT: NA DATE: 12-15-15

PURGE METHOD: Low Flow/Low Stress :Pump peristaltic + Teflon lined tubing TIME: 12:43

SAMPLE METHOD: Pump Peristaltic Straw method GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: 4.31

TOTAL DEPTH: 10 Tubing @ 8'

Arrived at: 12:20 PURGE VOLUME: 5.69 x .04 = 0.22 x 3 = 0.7 WELL DIAMETER (inches):

Initial PID = NA 1-IN

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 12:21	0	5.73	16.5	0.16	6.12	300 ( )	NA
12:26	0.25	5.65	16.6	0.16	2.12	300	NA
12:31	0.5	5.60	16.9	0.16	0.54	300	NA
12:36	0.75	5.62	17.0	0.16	0.37	300	NA
12:41	1	5.64	17.1	0.16	0.25	300	NA
12:43:	Parameters	Stable -	Sample				
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓ site-specific Volatiles +1,4 dioxane
40 mL	1	HCL to pH<2	SIM	✓ 14 Dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & Mild 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: Seep-2-121515 DEPTH TO PRODUCT: NA DATE: 12-15-15

PURGE METHOD: NA TIME: 2:35

SAMPLE METHOD: Fill bottle from seep water GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: 2:30 PURGE VOLUME: NA WELL DIAMETER (inches):

Initial PID = NA NA

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 2:35	NA	5.56	14.8	0.04	6.83	NA ( )	NA
COMMENTS:	Had to dig it out & let settle, but water is definitely seeping from the bank						

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & mid 60°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Marple	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **Seep** Mason Branch #2 DEPTH TO PRODUCT: NA DATE: 12-15-15

PURGE METHOD: NA TIME: 1:50

SAMPLE METHOD: Fill bottle from seep water GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: 1:45 PURGE VOLUME: NA WELL DIAMETER (inches):

Initial PID = NA NA

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1:50	NA	5.73	14.7	0.14	94.1	NA ( )	NA
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny, mid 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Marble	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

B, G, H, I, L, SMB#2, #2

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **Surface Water** MB#3-121615 DEPTH TO PRODUCT:_____ DATE: 12-16-15

PURGE METHOD: NA TIME: 1:56

SAMPLE METHOD: Fill bottle from surface water GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: 1:50 PURGE VOLUME: NA WELL DIAMETER (inches):

Initial PID = NA NA

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1:56	NA	6.08	14.5	0.07	4.34	NA ( )	NA

COMMENTS:

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓ site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION	
WEATHER:	Sunny & Mild 65°
SHIPPED VIA:	FedEX
SHIPPED TO:	Pace Analytical-Huntersville, NC
SAMPLER: Jeff Moore	OBSERVER: Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **Surface Water** MB#5-121615 DEPTH TO PRODUCT: NA DATE: 12-16-15

PURGE METHOD: NA TIME: 12:55

SAMPLE METHOD: Fill bottle from surface water GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: 12:46 PURGE VOLUME: NA WELL DIAMETER (inches):

Initial PID = NA

Bailing PID = [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 12:55	NA	6.18	13.9	0.09	8.57	NA ( )	NA
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	✓	ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny, Mild 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

MB#3, 5, 15, 16

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **Surface Water** MBH15-121615 DEPTH TO PRODUCT: NA DATE: 12-16-15

PURGE METHOD: NA TIME: 2:10

SAMPLE METHOD: Fill bottle from surface water GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: ~~NA~~ 2:05 PURGE VOLUME: NA WELL DIAMETER (inches):

Initial PID = NA NA

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 2:10	NA	6.01	14.5	0.07	3.26	NA ( )	NA
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	✓	ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & Mild 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **Surface Water** MB#16-121615 DEPTH TO PRODUCT: NA DATE: 12-16-15

PURGE METHOD: NA TIME: 1:07

SAMPLE METHOD: Fill bottle from surface water GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: 1:00 PURGE VOLUME: NA WELL DIAMETER (inches):

Initial PID = NA

Bailing PID = [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1:07	NA	5.78	16.1	0.08	16.4	NA ( )	NA
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓ site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & mild - 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **Seep** B-121515 DEPTH TO PRODUCT: NA DATE: 12-15-15

PURGE METHOD: NA TIME: 2:50

SAMPLE METHOD: Fill bottle from seep water GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: 2:45 PURGE VOLUME: NA WELL DIAMETER (Inches):

Initial PID = NA NA

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 2:50	NA	5.98	15.9	0.13	2629	NA ( )	NA
COMMENTS:	Had to dig Seep out to let fill with water						

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & Mid 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **Seep** G-121515 DEPTH TO PRODUCT: NA

DATE: 12-15-15

PURGE METHOD: NA

TIME: 2:20

SAMPLE METHOD: Fill bottle from seep water

GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA

DEPTH TO WATER: NA

DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA

NA

Arrived at: 2:15

PURGE VOLUME: NA

WELL DIAMETER (inches):

Initial PID = NA

NA

Bailing PID = NA

[HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 2:20	NA	5.40	16.0	0.04	35.7	NA ( )	NA
COMMENTS:	Had to dig this one out & let Settle						

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & Mild 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Meade	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: **Seep** H-121515 DEPTH TO PRODUCT: NA DATE: 12-15-15

PURGE METHOD: NA TIME: 2:05

SAMPLE METHOD: Fill bottle from seep water GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: 2:00 PURGE VOLUME: NA WELL DIAMETER (inches):

Initial PID = NA NA

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 2:05	NA	4.86	16.0	0.06	1.16	NA ( )	NA
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & Mild 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: SeepI-121615 DEPTH TO PRODUCT: NA DATE: 12-16-15

PURGE METHOD: NA TIME: 1:20

SAMPLE METHOD: Fill bottle from seep water GRAB (x) COMPOSITE ( )

DUP./REP. OF: NA DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: 1:16 PURGE VOLUME: NA WELL DIAMETER (inches):

Initial PID = NA NA

Balling PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1:20	NA	6.27	14.6	0.05	12.2	NA ( )	NA
COMMENTS:	Hard to clip the seep out						

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓ site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & Mild 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

TK LOUISVILLE FIELD SAMPLING REPORT

PROJECT NO: 6122-09-0322

AMEC Foster Wheeler Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

WELL ID: Seep L-121615 DEPTH TO PRODUCT: NA DATE: 12-16-15

PURGE METHOD: NA TIME: 12:30

SAMPLE METHOD: Fill bottle from seep water GRAB (x) COMPOSITE ( )

DUP./REP. OF: _____ DEPTH TO WATER: NA DEPTH TO PASSIVE DIFFUSION BAG (btoc)

TOTAL DEPTH: NA NA

Arrived at: 12:25 PURGE VOLUME: NA WELL DIAMETER (inches):

Initial PID = NA NA

Bailing PID = NA [HAND AUGER WELL]

TIME	VOL. PURGED (gal)	pH	TEMPERATURE (°C)	SPEC. COND. (mS/cm)	TURB. (NTU)	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 12:30	NA	6.12	14.2	0.64	7.54	NA ( )	NA
COMMENTS:							

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 mL	3	HCL to pH<2	8260B	✓ site-specific Volatiles +1,4 dioxane

GENERAL INFORMATION			
WEATHER:	Sunny & mild 65°		
SHIPPED VIA:	FedEX		
SHIPPED TO:	Pace Analytical-Huntersville, NC		
SAMPLER:	Jeff Moore	OBSERVER:	Paul Gazzo

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

APPENDIX C

LABORATORY REPORTS FOR VRP MONITORING ACTIVITIES

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

TestAmerica Job ID: 660-41784-1
Client Project/Site: Thermo King - Louisville
Revision: 1

For:
MACTEC Engineering and Consulting Inc
3200 Town Point Drive Northwest
Suite 100
Kennesaw, Georgia 30144

Attn: Ms. Rhonda Quinn

Authorized for release by:
07/08/2011 03:15:06 PM

Tina Fritz
Project Manager II
tina.fritz@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Job ID: 660-41784-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-41784-1

Comment
Report revised 7/9/11 to report to RL rather than MDL at client request.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method 8260B: A full list spike was utilized for this method. The LCS associated with batch 111569 had 1 analyte outside control limits. The laboratory's SOP allows for 5 analytes to recover outside criteria for this method when a full list spike is utilized. These results have been reported and qualified. The matrix spike(MS) recoveries for batch 111569 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 8260B: Reanalyis of TB-0611 also yielded the presence of Methylene Chloride.

Method 8260B: The matrix spike (MS) recoveries for batch 111565 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 8260C SIM: The following samples were diluted due to the nature of the sample matrix: Dup-1-0611, Mason Branch-2-0611 and Seep C-0611. Elevated reporting limits (RLs) are provided.

Method 8260C SIM: Internal standard responses were outside of acceptance limits for the following sample: MW-14-0611, MW-19-0611, MW-25. The samples show evidence of matrix interference. Samples are no longer within holding time, therefore data has been reported.

Method 8260C SIM: Due to internal standard failures, the MS/MSD for this batch was unreportable.

No other analytical or quality issues were noted.

Client Sample ID: Seep C-0611 — Lab Sample ID: 660-41784-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	32		1.0		ug/L	1		8260B	Total/NA
1,1,2-Trichloroethane	1.0		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	87		1.0		ug/L	1		8260B	Total/NA
Chloroform	2.3		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	19		1.0		ug/L	1		8260B	Total/NA
Trichloroethene - DL	530		10		ug/L	10		8260B	Total/NA

Client Sample ID: Mason Branch 2-0611 — Lab Sample ID: 660-41784-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	21		1.0		ug/L	1		8260B	Total/NA
1,1,2-Trichloroethane	1.2		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethane	1.5		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	50		1.0		ug/L	1		8260B	Total/NA
Chloroform	1.5		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	70		1.0		ug/L	1		8260B	Total/NA
Toluene	2.5		1.0		ug/L	1		8260B	Total/NA
Vinyl chloride	2.5		1.0		ug/L	1		8260B	Total/NA
Trichloroethene - DL	280		10		ug/L	10		8260B	Total/NA

Client Sample ID: Seep 2-0611 — Lab Sample ID: 660-41784-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Isopropyltoluene	4.5		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	4.4		1.0		ug/L	1		8260B	Total/NA
Toluene	2.0		1.0		ug/L	1		8260B	Total/NA
Vinyl chloride	1.4		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: Seep 1-0611 — Lab Sample ID: 660-41784-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.9		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	9.3		1.0		ug/L	1		8260B	Total/NA
4-Isopropyltoluene	1.4		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	64		1.0		ug/L	1		8260B	Total/NA
Toluene	2.3		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	2.5		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: Dup-1-0611 — Lab Sample ID: 660-41784-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	36		1.0		ug/L	1		8260B	Total/NA
1,1,2-Trichloroethane	1.0		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	100		1.0		ug/L	1		8260B	Total/NA
Chloroform	2.4		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	21		1.0		ug/L	1		8260B	Total/NA
Trichloroethene - DL	590		10		ug/L	10		8260B	Total/NA

Client Sample ID: MB15-0611 — Lab Sample ID: 660-41784-6

No Detections.

Client Sample ID: MB3-0611 — Lab Sample ID: 660-41784-7

No Detections.

Client Sample ID: MB16-0611 — Lab Sample ID: 660-41784-8

No Detections.

Client Sample ID: MB5-0611 — Lab Sample ID: 660-41784-9

No Detections.

Client Sample ID: TB-0611 — Lab Sample ID: 660-41784-10

No Detections.

Client Sample ID: MW-5-0611 — Lab Sample ID: 660-41784-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.0		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	15		1.0		ug/L	1		8260B	Total/NA
Chloroform	1.8		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	4.5		1.0		ug/L	1		8260B	Total/NA
Trichloroethene - DL	160		5.0		ug/L	5		8260B	Total/NA

Client Sample ID: MW-22-0611 — Lab Sample ID: 660-41784-12

No Detections.

Client Sample ID: MW-19-0611 — Lab Sample ID: 660-41784-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	18		10		ug/L	10		8260B	Total/NA
Trichloroethene - DL	4000		100		ug/L	100		8260B	Total/NA

Client Sample ID: MW-3-0611 — Lab Sample ID: 660-41784-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.7		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	1.8		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-14-0611 — Lab Sample ID: 660-41784-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	56		10		ug/L	10		8260B	Total/NA
cis-1,2-Dichloroethene	280		10		ug/L	10		8260B	Total/NA
Trichloroethene - DL	3200		100		ug/L	100		8260B	Total/NA

Client Sample ID: MW-28-0611 — Lab Sample ID: 660-41784-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.4		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	18		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	4.5		1.0		ug/L	1		8260B	Total/NA
Vinyl chloride	1.0		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-10-0611 — Lab Sample ID: 660-41784-17

Client Sample ID: MW-10-0611 (Continued) — Lab Sample ID: 660-41784-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.5		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	2.6		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-27-0611 — Lab Sample ID: 660-41784-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.2		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	6.6		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	15		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-26-0611 — Lab Sample ID: 660-41784-19

No Detections.

Client Sample ID: Dup-2-0611 — Lab Sample ID: 660-41784-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.5		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	2.3		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene - DL	210		5.0		ug/L	5		8260B	Total/NA

Client Sample ID: MW-25 — Lab Sample ID: 660-41784-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	20		20		ug/L	20		8260B	Total/NA
cis-1,2-Dichloroethene	880		20		ug/L	20		8260B	Total/NA
Trichloroethene - DL	3600		200		ug/L	200		8260B	Total/NA

Client Sample ID: MW-20 — Lab Sample ID: 660-41784-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.0		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	2.0		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene - DL	210		5.0		ug/L	5		8260B	Total/NA

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Client Sample ID: Seep C-0611
Date Collected: 06/07/11 11:45
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 14:29	1
1,1,1-Trichloroethane	**32**		1.0		ug/L			06/21/11 14:29	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 14:29	1
1,1,2-Trichloroethane	**1.0**		1.0		ug/L			06/21/11 14:29	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 14:29	1
1,1-Dichloroethene	**87**		1.0		ug/L			06/21/11 14:29	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 14:29	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 14:29	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 14:29	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 14:29	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 14:29	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 14:29	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 14:29	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 14:29	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 14:29	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 14:29	1
Benzene	<1.0		1.0		ug/L			06/21/11 14:29	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
Bromoform	<1.0		1.0		ug/L			06/21/11 14:29	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 14:29	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 14:29	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 14:29	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 14:29	1
Chloroform	**2.3**		1.0		ug/L			06/21/11 14:29	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 14:29	1
cis-1,2-Dichloroethene	**19**		1.0		ug/L			06/21/11 14:29	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 14:29	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 14:29	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 14:29	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 14:29	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 14:29	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 14:29	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 14:29	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 14:29	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
Styrene	<2.0		2.0		ug/L			06/21/11 14:29	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 14:29	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 14:29	1
Toluene	<1.0		1.0		ug/L			06/21/11 14:29	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 14:29	1

Client Sample ID: Seep C-0611

Lab Sample ID: 660-41784-1

Date Collected: 06/07/11 11:45

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 14:29	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 14:29	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/21/11 14:29*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**530**		10		ug/L			06/21/11 10:54	10

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*117*		*70 - 130*		*06/21/11 10:54*	*10*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<20		20		ug/L			06/20/11 16:26	10

Client Sample ID: Mason Branch 2-0611

Lab Sample ID: 660-41784-2

Date Collected: 06/07/11 12:10

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 14:51	1
1,1,1-Trichloroethane	**21**		1.0		ug/L			06/21/11 14:51	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 14:51	1
1,1,2-Trichloroethane	**1.2**		1.0		ug/L			06/21/11 14:51	1
1,1-Dichloroethane	**1.5**		1.0		ug/L			06/21/11 14:51	1
1,1-Dichloroethene	**50**		1.0		ug/L			06/21/11 14:51	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 14:51	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 14:51	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 14:51	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 14:51	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 14:51	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 14:51	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 14:51	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 14:51	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 14:51	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 14:51	1
Benzene	<1.0		1.0		ug/L			06/21/11 14:51	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
Bromoform	<1.0		1.0		ug/L			06/21/11 14:51	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 14:51	1

Client Sample ID: Mason Branch 2-0611

Lab Sample ID: 660-41784-2

Date Collected: 06/07/11 12:10

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 14:51	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 14:51	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 14:51	1
Chloroform	**1.5**		1.0		ug/L			06/21/11 14:51	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 14:51	1
cis-1,2-Dichloroethene	**70**		1.0		ug/L			06/21/11 14:51	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 14:51	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 14:51	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 14:51	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 14:51	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 14:51	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 14:51	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 14:51	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 14:51	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
Styrene	<2.0		2.0		ug/L			06/21/11 14:51	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 14:51	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 14:51	1
Toluene	**2.5**		1.0		ug/L			06/21/11 14:51	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 14:51	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 14:51	1
Vinyl chloride	**2.5**		1.0		ug/L			06/21/11 14:51	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/21/11 14:51*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**280**		10		ug/L			06/21/11 11:14	10

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*117*		*70 - 130*		*06/21/11 11:14*	*10*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<20		20		ug/L			06/20/11 16:52	10

Client Sample ID: Seep 2-0611

Lab Sample ID: 660-41784-3

Date Collected: 06/07/11 12:55

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 08:58	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 08:58	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 08:58	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 08:58	1

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Client Sample ID: Seep 2-0611
Date Collected: 06/07/11 12:55
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 08:58	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 08:58	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 08:58	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 08:58	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 08:58	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 08:58	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 08:58	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 08:58	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 08:58	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 08:58	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 08:58	1
4-Isopropyltoluene	**4.5**		1.0		ug/L			06/21/11 08:58	1
Benzene	<1.0		1.0		ug/L			06/21/11 08:58	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
Bromoform	<1.0		1.0		ug/L			06/21/11 08:58	1
Bromomethane	<5.0	F	5.0		ug/L			06/21/11 08:58	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 08:58	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 08:58	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 08:58	1
Chloroform	<1.0		1.0		ug/L			06/21/11 08:58	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 08:58	1
cis-1,2-Dichloroethene	**4.4**		1.0		ug/L			06/21/11 08:58	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 08:58	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 08:58	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 08:58	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 08:58	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 08:58	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 08:58	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 08:58	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 08:58	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
Styrene	<2.0		2.0		ug/L			06/21/11 08:58	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 08:58	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 08:58	1
Toluene	**2.0**		1.0		ug/L			06/21/11 08:58	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 08:58	1
Trichloroethene	<1.0		1.0		ug/L			06/21/11 08:58	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 08:58	1
Vinyl chloride	**1.4**		1.0		ug/L			06/21/11 08:58	1

Client Sample ID: Seep 2-0611

Lab Sample ID: 660-41784-3

Date Collected: 06/07/11 12:55

Matrix: Water

Date Received: 06/14/11 09:25

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	117		70 - 130		06/21/11 08:58	1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 14:40	1

Client Sample ID: Seep 1-0611

Lab Sample ID: 660-41784-4

Date Collected: 06/07/11 13:05

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 09:19	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 09:19	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 09:19	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 09:19	1
1,1-Dichloroethane	**1.9**		1.0		ug/L			06/21/11 09:19	1
1,1-Dichloroethene	**9.3**		1.0		ug/L			06/21/11 09:19	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 09:19	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 09:19	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 09:19	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 09:19	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 09:19	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 09:19	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 09:19	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 09:19	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 09:19	1
4-Isopropyltoluene	**1.4**		1.0		ug/L			06/21/11 09:19	1
Benzene	<1.0		1.0		ug/L			06/21/11 09:19	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
Bromoform	<1.0		1.0		ug/L			06/21/11 09:19	1
Bromomethane	<5.0		5.0		ug/L			06/21/11 09:19	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 09:19	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 09:19	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 09:19	1
Chloroform	<1.0		1.0		ug/L			06/21/11 09:19	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 09:19	1
cis-1,2-Dichloroethene	**64**		1.0		ug/L			06/21/11 09:19	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 09:19	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 09:19	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 09:19	1

Client Sample ID: Seep 1-0611

Lab Sample ID: 660-41784-4

Date Collected: 06/07/11 13:05

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 09:19	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 09:19	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 09:19	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 09:19	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 09:19	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 09:19	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
Styrene	<2.0		2.0		ug/L			06/21/11 09:19	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 09:19	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 09:19	1
Toluene	**2.3**		1.0		ug/L			06/21/11 09:19	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 09:19	1
Trichloroethene	**2.5**		1.0		ug/L			06/21/11 09:19	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 09:19	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 09:19	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*119*		*70 - 130*		*06/21/11 09:19*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 16:20	1

Client Sample ID: Dup-1-0611

Lab Sample ID: 660-41784-5

Date Collected: 06/07/11 12:00

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 15:14	1
1,1,1-Trichloroethane	**36**		1.0		ug/L			06/21/11 15:14	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 15:14	1
1,1,2-Trichloroethane	**1.0**		1.0		ug/L			06/21/11 15:14	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 15:14	1
1,1-Dichloroethene	**100**		1.0		ug/L			06/21/11 15:14	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 15:14	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 15:14	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 15:14	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 15:14	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 15:14	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 15:14	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:14	1

Client Sample ID: Dup-1-0611
Date Collected: 06/07/11 12:00
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 15:14	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 15:14	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 15:14	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 15:14	1
Benzene	<1.0		1.0		ug/L			06/21/11 15:14	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
Bromoform	<1.0		1.0		ug/L			06/21/11 15:14	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 15:14	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 15:14	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 15:14	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 15:14	1
Chloroform	**2.4**		1.0		ug/L			06/21/11 15:14	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 15:14	1
cis-1,2-Dichloroethene	**21**		1.0		ug/L			06/21/11 15:14	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 15:14	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 15:14	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 15:14	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 15:14	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 15:14	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 15:14	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 15:14	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 15:14	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
Styrene	<2.0		2.0		ug/L			06/21/11 15:14	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 15:14	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 15:14	1
Toluene	<1.0		1.0		ug/L			06/21/11 15:14	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 15:14	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 15:14	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 15:14	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/21/11 15:14*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**590**		10		ug/L			06/21/11 11:34	10

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*120*		*70 - 130*		*06/21/11 11:34*	*10*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<20		20		ug/L			06/20/11 18:05	10

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Client Sample ID: MB15-0611
Date Collected: 06/07/11 15:25
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 09:09	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 09:09	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 09:09	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 09:09	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 09:09	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 09:09	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 09:09	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 09:09	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 09:09	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 09:09	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 09:09	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 09:09	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 09:09	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 09:09	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 09:09	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 09:09	1
Benzene	<1.0		1.0		ug/L			06/21/11 09:09	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
Bromoform	<1.0		1.0		ug/L			06/21/11 09:09	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 09:09	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 09:09	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 09:09	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 09:09	1
Chloroform	<1.0		1.0		ug/L			06/21/11 09:09	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 09:09	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 09:09	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 09:09	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 09:09	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 09:09	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 09:09	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 09:09	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 09:09	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 09:09	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 09:09	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
Styrene	<2.0		2.0		ug/L			06/21/11 09:09	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 09:09	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 09:09	1
Toluene	<1.0		1.0		ug/L			06/21/11 09:09	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 09:09	1

Client Sample ID: MB15-0611

Lab Sample ID: 660-41784-6

Date Collected: 06/07/11 15:25

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.0		1.0		ug/L			06/21/11 09:09	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 09:09	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 09:09	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/21/11 09:09*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 16:52	1

Client Sample ID: MB3-0611

Lab Sample ID: 660-41784-7

Date Collected: 06/07/11 15:40

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 09:31	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 09:31	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 09:31	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 09:31	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 09:31	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 09:31	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 09:31	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 09:31	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 09:31	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 09:31	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 09:31	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 09:31	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 09:31	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 09:31	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 09:31	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 09:31	1
Benzene	<1.0		1.0		ug/L			06/21/11 09:31	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
Bromoform	<1.0		1.0		ug/L			06/21/11 09:31	1
Bromomethane	<5.0	F *	5.0		ug/L			06/21/11 09:31	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 09:31	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 09:31	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 09:31	1
Chloroform	<1.0		1.0		ug/L			06/21/11 09:31	1

Client Sample ID: MB3-0611

Date Collected: 06/07/11 15:40
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.0		4.0		ug/L			06/21/11 09:31	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 09:31	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 09:31	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 09:31	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 09:31	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 09:31	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 09:31	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 09:31	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 09:31	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 09:31	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
Styrene	<2.0		2.0		ug/L			06/21/11 09:31	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 09:31	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 09:31	1
Toluene	<1.0		1.0		ug/L			06/21/11 09:31	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 09:31	1
Trichloroethene	<1.0		1.0		ug/L			06/21/11 09:31	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 09:31	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 09:31	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/21/11 09:31*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 17:17	1

Client Sample ID: MB16-0611

Date Collected: 06/07/11 15:55
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 11:56	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 11:56	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 11:56	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 11:56	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 11:56	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 11:56	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 11:56	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 11:56	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 11:56	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 11:56	1

Client Sample ID: MB16-0611
Date Collected: 06/07/11 15:55
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 11:56	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 11:56	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 11:56	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 11:56	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 11:56	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 11:56	1
Benzene	<1.0		1.0		ug/L			06/21/11 11:56	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
Bromoform	<1.0		1.0		ug/L			06/21/11 11:56	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 11:56	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 11:56	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 11:56	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 11:56	1
Chloroform	<1.0		1.0		ug/L			06/21/11 11:56	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 11:56	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 11:56	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 11:56	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 11:56	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 11:56	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 11:56	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 11:56	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 11:56	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 11:56	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 11:56	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
Styrene	<2.0		2.0		ug/L			06/21/11 11:56	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 11:56	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 11:56	1
Toluene	<1.0		1.0		ug/L			06/21/11 11:56	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 11:56	1
Trichloroethene	<1.0		1.0		ug/L			06/21/11 11:56	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 11:56	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 11:56	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*06/21/11 11:56*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 17:41	1

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Client Sample ID: MB5-0611
Date Collected: 06/07/11 16:10
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 12:18	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 12:18	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 12:18	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 12:18	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 12:18	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 12:18	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 12:18	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 12:18	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 12:18	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 12:18	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 12:18	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 12:18	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 12:18	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 12:18	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 12:18	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 12:18	1
Benzene	<1.0		1.0		ug/L			06/21/11 12:18	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
Bromoform	<1.0		1.0		ug/L			06/21/11 12:18	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 12:18	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 12:18	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 12:18	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 12:18	1
Chloroform	<1.0		1.0		ug/L			06/21/11 12:18	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 12:18	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 12:18	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 12:18	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 12:18	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 12:18	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 12:18	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 12:18	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 12:18	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 12:18	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 12:18	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
Styrene	<2.0		2.0		ug/L			06/21/11 12:18	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 12:18	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 12:18	1
Toluene	<1.0		1.0		ug/L			06/21/11 12:18	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 12:18	1

Client Sample ID: MB5-0611

Lab Sample ID: 660-41784-9

Date Collected: 06/07/11 16:10

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.0		1.0		ug/L			06/21/11 12:18	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 12:18	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 12:18	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/21/11 12:18*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 18:06	1

Client Sample ID: TB-0611

Lab Sample ID: 660-41784-10

Date Collected: 06/07/11 00:00

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 11:33	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 11:33	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 11:33	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 11:33	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 11:33	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 11:33	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 11:33	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 11:33	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 11:33	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 11:33	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 11:33	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 11:33	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 11:33	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 11:33	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 11:33	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 11:33	1
Benzene	<1.0		1.0		ug/L			06/21/11 11:33	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
Bromoform	<1.0		1.0		ug/L			06/21/11 11:33	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 11:33	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 11:33	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 11:33	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 11:33	1
Chloroform	<1.0		1.0		ug/L			06/21/11 11:33	1

Client Sample ID: TB-0611

Date Collected: 06/07/11 00:00
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<4.0		4.0		ug/L			06/21/11 11:33	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 11:33	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 11:33	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 11:33	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 11:33	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 11:33	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 11:33	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 11:33	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 11:33	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 11:33	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
Styrene	<2.0		2.0		ug/L			06/21/11 11:33	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 11:33	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 11:33	1
Toluene	<1.0		1.0		ug/L			06/21/11 11:33	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 11:33	1
Trichloroethene	<1.0		1.0		ug/L			06/21/11 11:33	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 11:33	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 11:33	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/21/11 11:33*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 18:30	1

Client Sample ID: MW-5-0611

Date Collected: 06/08/11 11:39
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 15:36	1
1,1,1-Trichloroethane	**4.0**		1.0		ug/L			06/21/11 15:36	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 15:36	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 15:36	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 15:36	1
1,1-Dichloroethene	**15**		1.0		ug/L			06/21/11 15:36	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 15:36	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 15:36	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 15:36	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 15:36	1

Client Sample ID: MW-5-0611
Date Collected: 06/08/11 11:39
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 15:36	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 15:36	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 15:36	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 15:36	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 15:36	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 15:36	1
Benzene	<1.0		1.0		ug/L			06/21/11 15:36	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
Bromoform	<1.0		1.0		ug/L			06/21/11 15:36	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 15:36	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 15:36	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 15:36	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 15:36	1
Chloroform	**1.8**		1.0		ug/L			06/21/11 15:36	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 15:36	1
cis-1,2-Dichloroethene	**4.5**		1.0		ug/L			06/21/11 15:36	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 15:36	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 15:36	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 15:36	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 15:36	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 15:36	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 15:36	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 15:36	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 15:36	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
Styrene	<2.0		2.0		ug/L			06/21/11 15:36	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 15:36	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 15:36	1
Toluene	<1.0		1.0		ug/L			06/21/11 15:36	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 15:36	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 15:36	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 15:36	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/21/11 15:36*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**160**		5.0		ug/L			06/21/11 12:02	5

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*116*		*70 - 130*		*06/21/11 12:02*	*5*

Client Sample ID: MW-5-0611
Date Collected: 06/08/11 11:39
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-11
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 18:55	1

Client Sample ID: MW-22-0611
Date Collected: 06/08/11 13:05
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-12
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 12:41	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 12:41	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 12:41	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 12:41	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 12:41	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 12:41	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 12:41	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 12:41	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 12:41	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 12:41	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 12:41	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 12:41	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 12:41	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 12:41	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 12:41	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 12:41	1
Benzene	<1.0		1.0		ug/L			06/21/11 12:41	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
Bromoform	<1.0		1.0		ug/L			06/21/11 12:41	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 12:41	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 12:41	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 12:41	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 12:41	1
Chloroform	<1.0		1.0		ug/L			06/21/11 12:41	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 12:41	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 12:41	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 12:41	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 12:41	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 12:41	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 12:41	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 12:41	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 12:41	1

Client Sample ID: MW-22-0611

Lab Sample ID: 660-41784-12

Date Collected: 06/08/11 13:05

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<5.0		5.0		ug/L			06/21/11 12:41	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 12:41	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
Styrene	<2.0		2.0		ug/L			06/21/11 12:41	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 12:41	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 12:41	1
Toluene	<1.0		1.0		ug/L			06/21/11 12:41	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 12:41	1
Trichloroethene	<1.0		1.0		ug/L			06/21/11 12:41	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 12:41	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 12:41	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/21/11 12:41*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 19:19	1

Client Sample ID: MW-19-0611

Lab Sample ID: 660-41784-13

Date Collected: 06/08/11 15:15

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10		10		ug/L			06/21/11 15:59	10
1,1,1-Trichloroethane	<10		10		ug/L			06/21/11 15:59	10
1,1,2,2-Tetrachloroethane	<10		10		ug/L			06/21/11 15:59	10
1,1,2-Trichloroethane	<10		10		ug/L			06/21/11 15:59	10
1,1-Dichloroethane	<10		10		ug/L			06/21/11 15:59	10
1,1-Dichloroethene	**18**		10		ug/L			06/21/11 15:59	10
1,1-Dichloropropene	<10		10		ug/L			06/21/11 15:59	10
1,2,3-Trichlorobenzene	<10		10		ug/L			06/21/11 15:59	10
1,2,3-Trichloropropane	<10		10		ug/L			06/21/11 15:59	10
1,2,4-Trichlorobenzene	<10		10		ug/L			06/21/11 15:59	10
1,2,4-Trimethylbenzene	<10		10		ug/L			06/21/11 15:59	10
1,2-Dibromo-3-Chloropropane	<50		50		ug/L			06/21/11 15:59	10
1,2-Dichlorobenzene	<10		10		ug/L			06/21/11 15:59	10
1,2-Dichloroethane	<10		10		ug/L			06/21/11 15:59	10
1,2-Dichloropropane	<10		10		ug/L			06/21/11 15:59	10
1,3,5-Trimethylbenzene	<10		10		ug/L			06/21/11 15:59	10
1,3-Dichlorobenzene	<10		10		ug/L			06/21/11 15:59	10
1,3-Dichloropropane	<10		10		ug/L			06/21/11 15:59	10
1,4-Dichlorobenzene	<10		10		ug/L			06/21/11 15:59	10
2,2-Dichloropropane	<10		10		ug/L			06/21/11 15:59	10
2-Chlorotoluene	<10		10		ug/L			06/21/11 15:59	10
4-Chlorotoluene	<10		10		ug/L			06/21/11 15:59	10
4-Isopropyltoluene	<10		10		ug/L			06/21/11 15:59	10

Client Sample ID: MW-19-0611
Date Collected: 06/08/11 15:15
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-13
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<10		10		ug/L			06/21/11 15:59	10
Bromobenzene	<10		10		ug/L			06/21/11 15:59	10
Bromoform	<10		10		ug/L			06/21/11 15:59	10
Bromomethane	<50	*	50		ug/L			06/21/11 15:59	10
Chlorodibromomethane	<10		10		ug/L			06/21/11 15:59	10
Carbon tetrachloride	<10		10		ug/L			06/21/11 15:59	10
Chlorobenzene	<10		10		ug/L			06/21/11 15:59	10
Chloroethane	<50		50		ug/L			06/21/11 15:59	10
Chloroform	<10		10		ug/L			06/21/11 15:59	10
Chloromethane	<40		40		ug/L			06/21/11 15:59	10
cis-1,2-Dichloroethene	<10		10		ug/L			06/21/11 15:59	10
Dibromomethane	<10		10		ug/L			06/21/11 15:59	10
Dichlorobromomethane	<10		10		ug/L			06/21/11 15:59	10
Ethylbenzene	<10		10		ug/L			06/21/11 15:59	10
Ethylene Dibromide	<10		10		ug/L			06/21/11 15:59	10
Hexachlorobutadiene	<10		10		ug/L			06/21/11 15:59	10
Methylene Chloride	<50		50		ug/L			06/21/11 15:59	10
m-Xylene & p-Xylene	<20		20		ug/L			06/21/11 15:59	10
Naphthalene	<50		50		ug/L			06/21/11 15:59	10
n-Butylbenzene	<10		10		ug/L			06/21/11 15:59	10
o-Xylene	<10		10		ug/L			06/21/11 15:59	10
sec-Butylbenzene	<10		10		ug/L			06/21/11 15:59	10
Styrene	<20		20		ug/L			06/21/11 15:59	10
tert-Butylbenzene	<10		10		ug/L			06/21/11 15:59	10
Tetrachloroethene	<10		10		ug/L			06/21/11 15:59	10
Toluene	<10		10		ug/L			06/21/11 15:59	10
trans-1,2-Dichloroethene	<10		10		ug/L			06/21/11 15:59	10
Trichlorofluoromethane	<50		50		ug/L			06/21/11 15:59	10
Vinyl chloride	<10		10		ug/L			06/21/11 15:59	10

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/21/11 15:59*	*10*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**4000**		100		ug/L			06/21/11 12:43	100

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*126*		*70 - 130*		*06/21/11 12:43*	*100*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<20		20		ug/L			06/22/11 16:31	10

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Client Sample ID: MW-3-0611
Date Collected: 06/08/11 15:32
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-14
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 13:03	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 13:03	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 13:03	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 13:03	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 13:03	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 13:03	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 13:03	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 13:03	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 13:03	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 13:03	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 13:03	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 13:03	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 13:03	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 13:03	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 13:03	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 13:03	1
Benzene	<1.0		1.0		ug/L			06/21/11 13:03	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
Bromoform	<1.0		1.0		ug/L			06/21/11 13:03	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 13:03	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 13:03	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 13:03	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 13:03	1
Chloroform	**2.7**		1.0		ug/L			06/21/11 13:03	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 13:03	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 13:03	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 13:03	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 13:03	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 13:03	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 13:03	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 13:03	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 13:03	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 13:03	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 13:03	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
Styrene	<2.0		2.0		ug/L			06/21/11 13:03	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 13:03	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 13:03	1
Toluene	<1.0		1.0		ug/L			06/21/11 13:03	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 13:03	1

Client Sample ID: MW-3-0611

Lab Sample ID: 660-41784-14

Date Collected: 06/08/11 15:32

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**1.8**		1.0		ug/L			06/21/11 13:03	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 13:03	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 13:03	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/21/11 13:03*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 20:08	1

Client Sample ID: MW-14-0611

Lab Sample ID: 660-41784-15

Date Collected: 06/08/11 17:55

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10		10		ug/L			06/21/11 16:21	10
1,1,1-Trichloroethane	<10		10		ug/L			06/21/11 16:21	10
1,1,2,2-Tetrachloroethane	<10		10		ug/L			06/21/11 16:21	10
1,1,2-Trichloroethane	<10		10		ug/L			06/21/11 16:21	10
1,1-Dichloroethane	<10		10		ug/L			06/21/11 16:21	10
1,1-Dichloroethene	**56**		10		ug/L			06/21/11 16:21	10
1,1-Dichloropropene	<10		10		ug/L			06/21/11 16:21	10
1,2,3-Trichlorobenzene	<10		10		ug/L			06/21/11 16:21	10
1,2,3-Trichloropropane	<10		10		ug/L			06/21/11 16:21	10
1,2,4-Trichlorobenzene	<10		10		ug/L			06/21/11 16:21	10
1,2,4-Trimethylbenzene	<10		10		ug/L			06/21/11 16:21	10
1,2-Dibromo-3-Chloropropane	<50		50		ug/L			06/21/11 16:21	10
1,2-Dichlorobenzene	<10		10		ug/L			06/21/11 16:21	10
1,2-Dichloroethane	<10		10		ug/L			06/21/11 16:21	10
1,2-Dichloropropane	<10		10		ug/L			06/21/11 16:21	10
1,3,5-Trimethylbenzene	<10		10		ug/L			06/21/11 16:21	10
1,3-Dichlorobenzene	<10		10		ug/L			06/21/11 16:21	10
1,3-Dichloropropane	<10		10		ug/L			06/21/11 16:21	10
1,4-Dichlorobenzene	<10		10		ug/L			06/21/11 16:21	10
2,2-Dichloropropane	<10		10		ug/L			06/21/11 16:21	10
2-Chlorotoluene	<10		10		ug/L			06/21/11 16:21	10
4-Chlorotoluene	<10		10		ug/L			06/21/11 16:21	10
4-Isopropyltoluene	<10		10		ug/L			06/21/11 16:21	10
Benzene	<10		10		ug/L			06/21/11 16:21	10
Bromobenzene	<10		10		ug/L			06/21/11 16:21	10
Bromoform	<10		10		ug/L			06/21/11 16:21	10
Bromomethane	<50	*	50		ug/L			06/21/11 16:21	10
Chlorodibromomethane	<10		10		ug/L			06/21/11 16:21	10
Carbon tetrachloride	<10		10		ug/L			06/21/11 16:21	10
Chlorobenzene	<10		10		ug/L			06/21/11 16:21	10
Chloroethane	<50		50		ug/L			06/21/11 16:21	10
Chloroform	<10		10		ug/L			06/21/11 16:21	10

Client Sample ID: MW-14-0611

Lab Sample ID: 660-41784-15

Date Collected: 06/08/11 17:55

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<40		40		ug/L			06/21/11 16:21	10
cis-1,2-Dichloroethene	**280**		10		ug/L			06/21/11 16:21	10
Dibromomethane	<10		10		ug/L			06/21/11 16:21	10
Dichlorobromomethane	<10		10		ug/L			06/21/11 16:21	10
Ethylbenzene	<10		10		ug/L			06/21/11 16:21	10
Ethylene Dibromide	<10		10		ug/L			06/21/11 16:21	10
Hexachlorobutadiene	<10		10		ug/L			06/21/11 16:21	10
Methylene Chloride	<50		50		ug/L			06/21/11 16:21	10
m-Xylene & p-Xylene	<20		20		ug/L			06/21/11 16:21	10
Naphthalene	<50		50		ug/L			06/21/11 16:21	10
n-Butylbenzene	<10		10		ug/L			06/21/11 16:21	10
o-Xylene	<10		10		ug/L			06/21/11 16:21	10
sec-Butylbenzene	<10		10		ug/L			06/21/11 16:21	10
Styrene	<20		20		ug/L			06/21/11 16:21	10
tert-Butylbenzene	<10		10		ug/L			06/21/11 16:21	10
Tetrachloroethene	<10		10		ug/L			06/21/11 16:21	10
Toluene	<10		10		ug/L			06/21/11 16:21	10
trans-1,2-Dichloroethene	<10		10		ug/L			06/21/11 16:21	10
Trichlorofluoromethane	<50		50		ug/L			06/21/11 16:21	10
Vinyl chloride	<10		10		ug/L			06/21/11 16:21	10

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*70 - 130*		*06/21/11 16:21*	*10*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**3200**		100		ug/L			06/21/11 13:06	100

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*123*		*70 - 130*		*06/21/11 13:06*	*100*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<20		20		ug/L			06/22/11 18:35	10

Client Sample ID: MW-28-0611

Lab Sample ID: 660-41784-16

Date Collected: 06/09/11 10:15

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 16:30	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 16:30	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 16:30	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 16:30	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 16:30	1
1,1-Dichloroethene	**1.4**		1.0		ug/L			06/21/11 16:30	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 16:30	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 16:30	1

Client Sample ID: MW-28-0611
Date Collected: 06/09/11 10:15
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-16
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 16:30	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 16:30	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 16:30	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 16:30	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 16:30	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 16:30	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 16:30	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 16:30	1
Benzene	<1.0		1.0		ug/L			06/21/11 16:30	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
Bromoform	<1.0		1.0		ug/L			06/21/11 16:30	1
Bromomethane	<5.0		5.0		ug/L			06/21/11 16:30	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 16:30	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 16:30	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 16:30	1
Chloroform	<1.0		1.0		ug/L			06/21/11 16:30	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 16:30	1
cis-1,2-Dichloroethene	**18**		1.0		ug/L			06/21/11 16:30	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 16:30	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 16:30	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 16:30	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 16:30	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 16:30	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 16:30	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 16:30	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 16:30	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
Styrene	<2.0		2.0		ug/L			06/21/11 16:30	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 16:30	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 16:30	1
Toluene	<1.0		1.0		ug/L			06/21/11 16:30	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 16:30	1
Trichloroethene	**4.5**		1.0		ug/L			06/21/11 16:30	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 16:30	1
Vinyl chloride	**1.0**		1.0		ug/L			06/21/11 16:30	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*122*		*70 - 130*		*06/21/11 16:30*	*1*

Client Sample ID: MW-28-0611

Lab Sample ID: 660-41784-16

Date Collected: 06/09/11 10:15

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 21:00	1

Client Sample ID: MW-10-0611

Lab Sample ID: 660-41784-17

Date Collected: 06/09/11 10:59

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 16:51	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 16:51	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 16:51	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 16:51	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 16:51	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 16:51	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 16:51	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 16:51	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 16:51	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 16:51	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 16:51	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 16:51	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 16:51	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 16:51	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 16:51	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 16:51	1
Benzene	<1.0		1.0		ug/L			06/21/11 16:51	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
Bromoform	<1.0		1.0		ug/L			06/21/11 16:51	1
Bromomethane	<5.0		5.0		ug/L			06/21/11 16:51	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 16:51	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 16:51	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 16:51	1
Chloroform	**2.5**		1.0		ug/L			06/21/11 16:51	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 16:51	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 16:51	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 16:51	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 16:51	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 16:51	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 16:51	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 16:51	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 16:51	1

Client Sample ID: MW-10-0611

Lab Sample ID: 660-41784-17

Date Collected: 06/09/11 10:59

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<5.0		5.0		ug/L			06/21/11 16:51	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 16:51	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
Styrene	<2.0		2.0		ug/L			06/21/11 16:51	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 16:51	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 16:51	1
Toluene	<1.0		1.0		ug/L			06/21/11 16:51	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 16:51	1
Trichloroethene	**2.6**		1.0		ug/L			06/21/11 16:51	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 16:51	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 16:51	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*128*		*70 - 130*		*06/21/11 16:51*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 21:24	1

Client Sample ID: MW-27-0611

Lab Sample ID: 660-41784-18

Date Collected: 06/09/11 11:30

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 13:44	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 13:44	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 13:44	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 13:44	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 13:44	1
1,1-Dichloroethene	**1.2**		1.0		ug/L			06/21/11 13:44	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 13:44	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 13:44	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 13:44	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 13:44	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 13:44	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 13:44	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 13:44	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 13:44	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 13:44	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 13:44	1

Client Sample ID: MW-27-0611

Lab Sample ID: 660-41784-18

Date Collected: 06/09/11 11:30

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			06/21/11 13:44	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
Bromoform	<1.0		1.0		ug/L			06/21/11 13:44	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 13:44	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 13:44	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 13:44	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 13:44	1
Chloroform	<1.0		1.0		ug/L			06/21/11 13:44	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 13:44	1
cis-1,2-Dichloroethene	**6.6**		1.0		ug/L			06/21/11 13:44	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 13:44	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 13:44	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 13:44	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 13:44	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 13:44	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 13:44	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 13:44	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 13:44	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
Styrene	<2.0		2.0		ug/L			06/21/11 13:44	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 13:44	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 13:44	1
Toluene	<1.0		1.0		ug/L			06/21/11 13:44	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 13:44	1
Trichloroethene	**15**		1.0		ug/L			06/21/11 13:44	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 13:44	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 13:44	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/21/11 13:44*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 21:50	1

Client Sample ID: MW-26-0611

Lab Sample ID: 660-41784-19

Date Collected: 06/09/11 12:20

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 14:06	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 14:06	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 14:06	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 14:06	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 14:06	1

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Client Sample ID: MW-26-0611
Date Collected: 06/09/11 12:20
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-19
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 14:06	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 14:06	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 14:06	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 14:06	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 14:06	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 14:06	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 14:06	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 14:06	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 14:06	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 14:06	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 14:06	1
Benzene	<1.0		1.0		ug/L			06/21/11 14:06	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
Bromoform	<1.0		1.0		ug/L			06/21/11 14:06	1
Bromomethane	<5.0	*	5.0		ug/L			06/21/11 14:06	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 14:06	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 14:06	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 14:06	1
Chloroform	<1.0		1.0		ug/L			06/21/11 14:06	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 14:06	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 14:06	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 14:06	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 14:06	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 14:06	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 14:06	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 14:06	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 14:06	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 14:06	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 14:06	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
Styrene	<2.0		2.0		ug/L			06/21/11 14:06	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 14:06	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 14:06	1
Toluene	<1.0		1.0		ug/L			06/21/11 14:06	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 14:06	1
Trichloroethene	<1.0		1.0		ug/L			06/21/11 14:06	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 14:06	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 14:06	1

Client Sample ID: MW-26-0611

Lab Sample ID: 660-41784-19

Date Collected: 06/09/11 12:20

Matrix: Water

Date Received: 06/14/11 09:25

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		70 - 130		06/21/11 14:06	1

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 22:15	1

Client Sample ID: Dup-2-0611

Lab Sample ID: 660-41784-20

Date Collected: 06/09/11 12:00

Matrix: Water

Date Received: 06/14/11 09:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 17:11	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 17:11	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 17:11	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 17:11	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 17:11	1
1,1-Dichloroethene	**1.5**		1.0		ug/L			06/21/11 17:11	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 17:11	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 17:11	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 17:11	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 17:11	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 17:11	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 17:11	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 17:11	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 17:11	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 17:11	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 17:11	1
Benzene	<1.0		1.0		ug/L			06/21/11 17:11	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
Bromoform	<1.0		1.0		ug/L			06/21/11 17:11	1
Bromomethane	<5.0		5.0		ug/L			06/21/11 17:11	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 17:11	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 17:11	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 17:11	1
Chloroform	<1.0		1.0		ug/L			06/21/11 17:11	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 17:11	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 17:11	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 17:11	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 17:11	1

Client Sample ID: Dup-2-0611

Date Collected: 06/09/11 12:00
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-20
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 17:11	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 17:11	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 17:11	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 17:11	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 17:11	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
Styrene	<2.0		2.0		ug/L			06/21/11 17:11	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 17:11	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 17:11	1
Toluene	<1.0		1.0		ug/L			06/21/11 17:11	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 17:11	1
Trichloroethene	**2.3**		1.0		ug/L			06/21/11 17:11	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 17:11	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 17:11	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*120*		*70 - 130*		*06/21/11 17:11*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**210**		5.0		ug/L			06/21/11 13:29	5

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*124*		*70 - 130*		*06/21/11 13:29*	*5*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 22:39	1

Client Sample ID: MW-25

Date Collected: 06/09/11 16:51
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-21
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<20		20		ug/L			06/21/11 16:44	20
1,1,1-Trichloroethane	<20		20		ug/L			06/21/11 16:44	20
1,1,2,2-Tetrachloroethane	<20		20		ug/L			06/21/11 16:44	20
1,1,2-Trichloroethane	<20		20		ug/L			06/21/11 16:44	20
1,1-Dichloroethane	<20		20		ug/L			06/21/11 16:44	20
1,1-Dichloroethene	**20**		20		ug/L			06/21/11 16:44	20
1,1-Dichloropropene	<20		20		ug/L			06/21/11 16:44	20
1,2,3-Trichlorobenzene	<20		20		ug/L			06/21/11 16:44	20
1,2,3-Trichloropropane	<20		20		ug/L			06/21/11 16:44	20
1,2,4-Trichlorobenzene	<20		20		ug/L			06/21/11 16:44	20
1,2,4-Trimethylbenzene	<20		20		ug/L			06/21/11 16:44	20
1,2-Dibromo-3-Chloropropane	<100		100		ug/L			06/21/11 16:44	20
1,2-Dichlorobenzene	<20		20		ug/L			06/21/11 16:44	20
1,2-Dichloroethane	<20		20		ug/L			06/21/11 16:44	20

Client Sample ID: MW-25
Date Collected: 06/09/11 16:51
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-21
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<20		20		ug/L			06/21/11 16:44	20
1,3,5-Trimethylbenzene	<20		20		ug/L			06/21/11 16:44	20
1,3-Dichlorobenzene	<20		20		ug/L			06/21/11 16:44	20
1,3-Dichloropropane	<20		20		ug/L			06/21/11 16:44	20
1,4-Dichlorobenzene	<20		20		ug/L			06/21/11 16:44	20
2,2-Dichloropropane	<20		20		ug/L			06/21/11 16:44	20
2-Chlorotoluene	<20		20		ug/L			06/21/11 16:44	20
4-Chlorotoluene	<20		20		ug/L			06/21/11 16:44	20
4-Isopropyltoluene	<20		20		ug/L			06/21/11 16:44	20
Benzene	<20		20		ug/L			06/21/11 16:44	20
Bromobenzene	<20		20		ug/L			06/21/11 16:44	20
Bromoform	<20		20		ug/L			06/21/11 16:44	20
Bromomethane	<100	*	100		ug/L			06/21/11 16:44	20
Chlorodibromomethane	<20		20		ug/L			06/21/11 16:44	20
Carbon tetrachloride	<20		20		ug/L			06/21/11 16:44	20
Chlorobenzene	<20		20		ug/L			06/21/11 16:44	20
Chloroethane	<100		100		ug/L			06/21/11 16:44	20
Chloroform	<20		20		ug/L			06/21/11 16:44	20
Chloromethane	<80		80		ug/L			06/21/11 16:44	20
cis-1,2-Dichloroethene	**880**		20		ug/L			06/21/11 16:44	20
Dibromomethane	<20		20		ug/L			06/21/11 16:44	20
Dichlorobromomethane	<20		20		ug/L			06/21/11 16:44	20
Ethylbenzene	<20		20		ug/L			06/21/11 16:44	20
Ethylene Dibromide	<20		20		ug/L			06/21/11 16:44	20
Hexachlorobutadiene	<20		20		ug/L			06/21/11 16:44	20
Methylene Chloride	<100		100		ug/L			06/21/11 16:44	20
m-Xylene & p-Xylene	<40		40		ug/L			06/21/11 16:44	20
Naphthalene	<100		100		ug/L			06/21/11 16:44	20
n-Butylbenzene	<20		20		ug/L			06/21/11 16:44	20
o-Xylene	<20		20		ug/L			06/21/11 16:44	20
sec-Butylbenzene	<20		20		ug/L			06/21/11 16:44	20
Styrene	<40		40		ug/L			06/21/11 16:44	20
tert-Butylbenzene	<20		20		ug/L			06/21/11 16:44	20
Tetrachloroethene	<20		20		ug/L			06/21/11 16:44	20
Toluene	<20		20		ug/L			06/21/11 16:44	20
trans-1,2-Dichloroethene	<20		20		ug/L			06/21/11 16:44	20
Trichlorofluoromethane	<100		100		ug/L			06/21/11 16:44	20
Vinyl chloride	<20		20		ug/L			06/21/11 16:44	20

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/21/11 16:44*	*20*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**3600**		200		ug/L			06/21/11 13:49	200

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*123*		*70 - 130*		*06/21/11 13:49*	*200*

Client Sample ID: MW-25
Date Collected: 06/09/11 16:51
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-21
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<20		20		ug/L			06/22/11 19:00	10

Client Sample ID: MW-20
Date Collected: 06/09/11 17:40
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-22
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 17:31	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 17:31	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 17:31	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 17:31	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 17:31	1
1,1-Dichloroethene	**2.0**		1.0		ug/L			06/21/11 17:31	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 17:31	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 17:31	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 17:31	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 17:31	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 17:31	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 17:31	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 17:31	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 17:31	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 17:31	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 17:31	1
Benzene	<1.0		1.0		ug/L			06/21/11 17:31	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
Bromoform	<1.0		1.0		ug/L			06/21/11 17:31	1
Bromomethane	<5.0		5.0		ug/L			06/21/11 17:31	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 17:31	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 17:31	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 17:31	1
Chloroform	<1.0		1.0		ug/L			06/21/11 17:31	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 17:31	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 17:31	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 17:31	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 17:31	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 17:31	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 17:31	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 17:31	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 17:31	1

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Client Sample ID: MW-20
Date Collected: 06/09/11 17:40
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-22
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 17:31	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
Styrene	<2.0		2.0		ug/L			06/21/11 17:31	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 17:31	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 17:31	1
Toluene	<1.0		1.0		ug/L			06/21/11 17:31	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 17:31	1
Trichloroethene	**2.0**		1.0		ug/L			06/21/11 17:31	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 17:31	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 17:31	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*123*		*70 - 130*		*06/21/11 17:31*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**210**		5.0		ug/L			06/21/11 14:09	5

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*126*		*70 - 130*		*06/21/11 14:09*	*5*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<20		20		ug/L			06/22/11 19:27	10

Surrogate Summary

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	TOL (70-130)
660-41784-1 - DL	Seep C-0611	117
660-41784-1	Seep C-0611	101
660-41784-2 - DL	Mason Branch 2-0611	117
660-41784-2	Mason Branch 2-0611	100
660-41784-3	Seep 2-0611	117
660-41784-3 MS	Seep 2-0611	107
660-41784-4	Seep 1-0611	119
660-41784-4 DU	Seep 1-0611	119
660-41784-5 - DL	Dup-1-0611	120
660-41784-5	Dup-1-0611	101
660-41784-6	MB15-0611	101
660-41784-6 DU	MB15-0611	100
660-41784-7	MB3-0611	101
660-41784-7 MS	MB3-0611	101
660-41784-8	MB16-0611	102
660-41784-9	MB5-0611	100
660-41784-10	TB-0611	100
660-41784-11 - DL	MW-5-0611	116
660-41784-11	MW-5-0611	99
660-41784-12	MW-22-0611	101
660-41784-13 - DL	MW-19-0611	126
660-41784-13	MW-19-0611	100
660-41784-14	MW-3-0611	100
660-41784-15 - DL	MW-14-0611	123
660-41784-15	MW-14-0611	99
660-41784-16	MW-28-0611	122
660-41784-17	MW-10-0611	128
660-41784-18	MW-27-0611	100
660-41784-19	MW-26-0611	102
660-41784-20 - DL	Dup-2-0611	124
660-41784-20	Dup-2-0611	120
660-41784-21 - DL	MW-25	123
660-41784-21	MW-25	100
660-41784-22 - DL	MW-20	126
660-41784-22	MW-20	123
LCS 660-111565/3	Lab Control Sample	106
LCS 660-111569/3	Lab Control Sample	101
MB 660-111565/4	Method Blank	118
MB 660-111569/4	Method Blank	100

Surrogate Legend

TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 660-111565/4
Matrix: Water
Analysis Batch: 111565

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 08:31	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 08:31	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 08:31	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 08:31	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 08:31	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 08:31	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 08:31	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 08:31	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 08:31	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 08:31	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 08:31	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 08:31	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 08:31	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 08:31	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 08:31	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 08:31	1
Benzene	<1.0		1.0		ug/L			06/21/11 08:31	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
Bromoform	<1.0		1.0		ug/L			06/21/11 08:31	1
Bromomethane	<5.0		5.0		ug/L			06/21/11 08:31	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 08:31	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 08:31	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 08:31	1
Chloroform	<1.0		1.0		ug/L			06/21/11 08:31	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 08:31	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 08:31	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 08:31	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 08:31	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 08:31	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 08:31	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 08:31	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 08:31	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 08:31	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 08:31	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
Styrene	<2.0		2.0		ug/L			06/21/11 08:31	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 08:31	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 08:31	1
Toluene	<1.0		1.0		ug/L			06/21/11 08:31	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 660-111565/4
Matrix: Water
Analysis Batch: 111565

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 08:31	1
Trichloroethene	<1.0		1.0		ug/L			06/21/11 08:31	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 08:31	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 08:31	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*118*		*70 - 130*		*06/21/11 08:31*	*1*

Lab Sample ID: LCS 660-111565/3
Matrix: Water
Analysis Batch: 111565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,1,1,2-Tetrachloroethane	20.0	17.5		ug/L		87	70 - 130
1,1,1-Trichloroethane	20.0	22.0		ug/L		110	63 - 132
1,1,2,2-Tetrachloroethane	20.0	21.3		ug/L		107	70 - 130
1,1,2-Trichloroethane	20.0	20.5		ug/L		103	70 - 130
1,1-Dichloroethane	20.0	22.2		ug/L		111	66 - 130
1,1-Dichloroethene	20.0	21.7		ug/L		109	51 - 150
1,1-Dichloropropene	20.0	22.2		ug/L		111	65 - 136
1,2,3-Trichlorobenzene	20.0	22.5		ug/L		113	58 - 132
1,2,3-Trichloropropane	20.0	21.0		ug/L		105	66 - 130
1,2,4-Trichlorobenzene	20.0	22.0		ug/L		110	66 - 130
1,2,4-Trimethylbenzene	20.0	22.1		ug/L		110	70 - 132
1,2-Dibromo-3-Chloropropane	20.0	21.7		ug/L		108	63 - 130
1,2-Dichlorobenzene	20.0	20.9		ug/L		105	70 - 130
1,2-Dichloroethane	20.0	21.7		ug/L		109	70 - 130
1,2-Dichloropropane	20.0	23.9		ug/L		120	70 - 130
1,3,5-Trimethylbenzene	20.0	21.8		ug/L		109	65 - 134
1,3-Dichlorobenzene	20.0	21.2		ug/L		106	70 - 130
1,3-Dichloropropane	20.0	23.2		ug/L		116	70 - 130
1,4-Dichlorobenzene	20.0	20.9		ug/L		104	70 - 130
2,2-Dichloropropane	20.0	24.2		ug/L		121	66 - 134
2-Chlorotoluene	20.0	21.2		ug/L		106	70 - 130
4-Chlorotoluene	20.0	21.5		ug/L		108	70 - 130
4-Isopropyltoluene	20.0	22.1		ug/L		111	65 - 134
Benzene	20.0	19.3		ug/L		96	68 - 134
Bromobenzene	20.0	20.4		ug/L		102	70 - 130
Bromoform	20.0	16.7		ug/L		83	65 - 130
Bromomethane	20.0	24.4		ug/L		122	22 - 150
Chlorodibromomethane	20.0	18.8		ug/L		94	70 - 130
Carbon tetrachloride	20.0	22.6		ug/L		113	61 - 134
Chlorobenzene	20.0	21.1		ug/L		105	70 - 130
Chloroethane	20.0	19.1		ug/L		96	39 - 150
Chloroform	20.0	21.4		ug/L		107	68 - 130
Chloromethane	20.0	21.3		ug/L		106	35 - 150
cis-1,2-Dichloroethene	20.0	23.0		ug/L		115	66 - 130
Dibromomethane	20.0	25.9		ug/L		129	70 - 130
Dichlorobromomethane	20.0	21.3		ug/L		107	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 660-111565/3
Matrix: Water
Analysis Batch: 111565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Ethylbenzene	20.0	21.9		ug/L		109	70 - 130
Ethylene Dibromide	20.0	22.4		ug/L		112	66 - 130
Hexachlorobutadiene	20.0	21.0		ug/L		105	62 - 143
Methylene Chloride	20.0	23.7		ug/L		118	57 - 130
Naphthalene	20.0	20.1		ug/L		100	50 - 136
n-Butylbenzene	20.0	23.2		ug/L		116	61 - 131
o-Xylene	20.0	22.1		ug/L		111	69 - 130
sec-Butylbenzene	20.0	21.7		ug/L		108	68 - 133
Styrene	20.0	21.3		ug/L		106	68 - 131
tert-Butylbenzene	20.0	22.6		ug/L		113	64 - 130
Tetrachloroethene	20.0	19.4		ug/L		97	50 - 143
Toluene	20.0	22.4		ug/L		112	70 - 131
trans-1,2-Dichloroethene	20.0	22.6		ug/L		113	62 - 139
Trichloroethene	20.0	21.5		ug/L		107	63 - 139
Trichlorofluoromethane	20.0	24.2		ug/L		121	62 - 146
Vinyl chloride	20.0	21.2		ug/L		106	48 - 147

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*106*		*70 - 130*

Lab Sample ID: 660-41784-3 MS
Matrix: Water
Analysis Batch: 111565

Client Sample ID: Seep 2-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
1,1,1,2-Tetrachloroethane	<1.0		20.0	16.3		ug/L		81	70 - 130
1,1,1-Trichloroethane	<1.0		20.0	22.5		ug/L		112	63 - 132
1,1,2,2-Tetrachloroethane	<1.0		20.0	19.0		ug/L		95	70 - 130
1,1,2-Trichloroethane	<1.0		20.0	18.6		ug/L		93	70 - 130
1,1-Dichloroethane	<1.0		20.0	25.7		ug/L		128	66 - 130
1,1-Dichloroethene	<1.0		20.0	25.1		ug/L		123	51 - 150
1,1-Dichloropropene	<1.0		20.0	21.4		ug/L		107	65 - 136
1,2,3-Trichlorobenzene	<1.0		20.0	20.9		ug/L		104	58 - 132
1,2,3-Trichloropropane	<1.0		20.0	18.1		ug/L		91	66 - 130
1,2,4-Trichlorobenzene	<1.0		20.0	21.2		ug/L		106	66 - 130
1,2,4-Trimethylbenzene	<1.0		20.0	18.9		ug/L		94	70 - 132
1,2-Dibromo-3-Chloropropane	<5.0		20.0	19.3		ug/L		97	63 - 130
1,2-Dichlorobenzene	<1.0		20.0	20.5		ug/L		103	70 - 130
1,2-Dichloroethane	<1.0		20.0	21.4		ug/L		107	70 - 130
1,2-Dichloropropane	<1.0		20.0	21.7		ug/L		108	70 - 130
1,3,5-Trimethylbenzene	<1.0		20.0	15.7		ug/L		79	65 - 134
1,3-Dichlorobenzene	<1.0		20.0	21.1		ug/L		105	70 - 130
1,3-Dichloropropane	<1.0		20.0	20.5		ug/L		102	70 - 130
1,4-Dichlorobenzene	<1.0		20.0	20.2		ug/L		101	70 - 130
2,2-Dichloropropane	<1.0		20.0	25.2		ug/L		126	66 - 134
2-Chlorotoluene	<1.0		20.0	21.5		ug/L		108	70 - 130
4-Chlorotoluene	<1.0		20.0	20.2		ug/L		101	70 - 130
4-Isopropyltoluene	4.5		20.0	25.2		ug/L		104	65 - 134
Benzene	<1.0		20.0	20.1		ug/L		100	68 - 134

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 660-41784-3 MS
Matrix: Water
Analysis Batch: 111565

Client Sample ID: Seep 2-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Bromobenzene	<1.0		20.0	19.5		ug/L		98	70 - 130
Bromoform	<1.0		20.0	13.9		ug/L		69	65 - 130
Bromomethane	<5.0	F	20.0	31.1	F	ug/L		156	22 - 150
Chlorodibromomethane	<1.0		20.0	16.0		ug/L		80	70 - 130
Carbon tetrachloride	<1.0		20.0	22.7		ug/L		113	61 - 134
Chlorobenzene	<1.0		20.0	20.9		ug/L		104	70 - 130
Chloroethane	<5.0		20.0	23.3		ug/L		117	39 - 150
Chloroform	<1.0		20.0	23.3		ug/L		116	68 - 130
Chloromethane	<4.0		20.0	26.2		ug/L		131	35 - 150
cis-1,2-Dichloroethene	4.4		20.0	28.3		ug/L		119	66 - 130
Dibromomethane	<1.0		20.0	24.3		ug/L		121	70 - 130
Dichlorobromomethane	<1.0		20.0	19.3		ug/L		97	70 - 130
Ethylbenzene	<1.0		20.0	21.6		ug/L		108	70 - 130
Ethylene Dibromide	<1.0		20.0	19.9		ug/L		100	66 - 130
Hexachlorobutadiene	<1.0		20.0	20.3		ug/L		102	62 - 143
Methylene Chloride	<5.0		20.0	23.4		ug/L		117	57 - 130
Naphthalene	<5.0		20.0	18.3		ug/L		91	50 - 136
n-Butylbenzene	<1.0		20.0	22.9		ug/L		115	61 - 131
o-Xylene	<1.0		20.0	20.7		ug/L		104	69 - 130
sec-Butylbenzene	<1.0		20.0	21.2		ug/L		106	68 - 133
Styrene	<2.0		20.0	14.7		ug/L		73	68 - 131
tert-Butylbenzene	<1.0		20.0	22.1		ug/L		110	64 - 130
Tetrachloroethene	<1.0		20.0	19.3		ug/L		96	50 - 143
Toluene	2.0		20.0	23.5		ug/L		108	70 - 131
trans-1,2-Dichloroethene	<1.0		20.0	24.1		ug/L		120	62 - 139
Trichloroethene	<1.0		20.0	20.3		ug/L		102	63 - 139
Trichlorofluoromethane	<5.0		20.0	28.4		ug/L		142	62 - 146
Vinyl chloride	1.4		20.0	25.3		ug/L		120	48 - 147

Surrogate	*MS % Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*70 - 130*

Lab Sample ID: 660-41784-4 DU
Matrix: Water
Analysis Batch: 111565

Client Sample ID: Seep 1-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<1.0		<1.0		ug/L		NC	30
1,1,1-Trichloroethane	<1.0		<1.0		ug/L		NC	30
1,1,2,2-Tetrachloroethane	<1.0		<1.0		ug/L		NC	30
1,1,2-Trichloroethane	<1.0		<1.0		ug/L		NC	30
1,1-Dichloroethane	1.9		1.80		ug/L		3	30
1,1-Dichloroethene	9.3		8.95		ug/L		4	30
1,1-Dichloropropene	<1.0		<1.0		ug/L		NC	30
1,2,3-Trichlorobenzene	<1.0		<1.0		ug/L		NC	30
1,2,3-Trichloropropane	<1.0		<1.0		ug/L		NC	30
1,2,4-Trichlorobenzene	<1.0		<1.0		ug/L		NC	30
1,2,4-Trimethylbenzene	<1.0		<1.0		ug/L		NC	30
1,2-Dibromo-3-Chloropropane	<5.0		<5.0		ug/L		NC	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 660-41784-4 DU
Matrix: Water
Analysis Batch: 111565

Client Sample ID: Seep 1-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
1,2-Dichlorobenzene	<1.0			<1.0		ug/L				NC	30
1,2-Dichloroethane	<1.0			<1.0		ug/L				NC	30
1,2-Dichloropropane	<1.0			<1.0		ug/L				NC	30
1,3,5-Trimethylbenzene	<1.0			<1.0		ug/L				NC	30
1,3-Dichlorobenzene	<1.0			<1.0		ug/L				NC	30
1,3-Dichloropropane	<1.0			<1.0		ug/L				NC	30
1,4-Dichlorobenzene	<1.0			<1.0		ug/L				NC	30
2,2-Dichloropropane	<1.0			<1.0		ug/L				NC	30
2-Chlorotoluene	<1.0			<1.0		ug/L				NC	30
4-Chlorotoluene	<1.0			<1.0		ug/L				NC	30
4-Isopropyltoluene	1.4			1.45		ug/L				2	30
Benzene	<1.0			<1.0		ug/L				NC	30
Bromobenzene	<1.0			<1.0		ug/L				NC	30
Bromoform	<1.0			<1.0		ug/L				NC	30
Bromomethane	<5.0			<5.0		ug/L				NC	30
Chlorodibromomethane	<1.0			<1.0		ug/L				NC	30
Carbon tetrachloride	<1.0			<1.0		ug/L				NC	30
Chlorobenzene	<1.0			<1.0		ug/L				NC	30
Chloroethane	<5.0			<5.0		ug/L				NC	30
Chloroform	<1.0			<1.0		ug/L				NC	30
Chloromethane	<4.0			<4.0		ug/L				NC	30
cis-1,2-Dichloroethene	64			66.6		ug/L				4	30
Dibromomethane	<1.0			<1.0		ug/L				NC	30
Dichlorobromomethane	<1.0			<1.0		ug/L				NC	30
Ethylbenzene	<1.0			<1.0		ug/L				NC	30
Ethylene Dibromide	<1.0			<1.0		ug/L				NC	30
Hexachlorobutadiene	<1.0			<1.0		ug/L				NC	30
Methylene Chloride	<5.0			<5.0		ug/L				NC	30
m-Xylene & p-Xylene	<2.0			<2.0		ug/L				NC	30
Naphthalene	<5.0			<5.0		ug/L				NC	30
n-Butylbenzene	<1.0			<1.0		ug/L				NC	30
o-Xylene	<1.0			<1.0		ug/L				NC	30
sec-Butylbenzene	<1.0			<1.0		ug/L				NC	30
Styrene	<2.0			<2.0		ug/L				NC	30
tert-Butylbenzene	<1.0			<1.0		ug/L				NC	30
Tetrachloroethene	<1.0			<1.0		ug/L				NC	30
Toluene	2.3			2.50		ug/L				8	30
trans-1,2-Dichloroethene	<1.0			<1.0		ug/L				NC	30
Trichloroethene	2.5			2.14		ug/L				14	30
Trichlorofluoromethane	<5.0			<5.0		ug/L				NC	30
Vinyl chloride	<1.0			<1.0		ug/L				NC	30

Surrogate	*DU % Recovery*	*DU Qualifier*	*Limits*
Toluene-d8 (Surr)	*119*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 660-111569/4
Matrix: Water
Analysis Batch: 111569

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 08:40	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			06/21/11 08:40	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			06/21/11 08:40	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			06/21/11 08:40	1
1,1-Dichloroethane	<1.0		1.0		ug/L			06/21/11 08:40	1
1,1-Dichloroethene	<1.0		1.0		ug/L			06/21/11 08:40	1
1,1-Dichloropropene	<1.0		1.0		ug/L			06/21/11 08:40	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			06/21/11 08:40	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			06/21/11 08:40	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
1,2-Dichloroethane	<1.0		1.0		ug/L			06/21/11 08:40	1
1,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 08:40	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
1,3-Dichloropropane	<1.0		1.0		ug/L			06/21/11 08:40	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
2,2-Dichloropropane	<1.0		1.0		ug/L			06/21/11 08:40	1
2-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 08:40	1
4-Chlorotoluene	<1.0		1.0		ug/L			06/21/11 08:40	1
4-Isopropyltoluene	<1.0		1.0		ug/L			06/21/11 08:40	1
Benzene	<1.0		1.0		ug/L			06/21/11 08:40	1
Bromobenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
Bromoform	<1.0		1.0		ug/L			06/21/11 08:40	1
Bromomethane	<5.0		5.0		ug/L			06/21/11 08:40	1
Chlorodibromomethane	<1.0		1.0		ug/L			06/21/11 08:40	1
Carbon tetrachloride	<1.0		1.0		ug/L			06/21/11 08:40	1
Chlorobenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
Chloroethane	<5.0		5.0		ug/L			06/21/11 08:40	1
Chloroform	<1.0		1.0		ug/L			06/21/11 08:40	1
Chloromethane	<4.0		4.0		ug/L			06/21/11 08:40	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 08:40	1
Dibromomethane	<1.0		1.0		ug/L			06/21/11 08:40	1
Dichlorobromomethane	<1.0		1.0		ug/L			06/21/11 08:40	1
Ethylbenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
Ethylene Dibromide	<1.0		1.0		ug/L			06/21/11 08:40	1
Hexachlorobutadiene	<1.0		1.0		ug/L			06/21/11 08:40	1
Methylene Chloride	<5.0		5.0		ug/L			06/21/11 08:40	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			06/21/11 08:40	1
Naphthalene	<5.0		5.0		ug/L			06/21/11 08:40	1
n-Butylbenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
o-Xylene	<1.0		1.0		ug/L			06/21/11 08:40	1
sec-Butylbenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
Styrene	<2.0		2.0		ug/L			06/21/11 08:40	1
tert-Butylbenzene	<1.0		1.0		ug/L			06/21/11 08:40	1
Tetrachloroethene	<1.0		1.0		ug/L			06/21/11 08:40	1
Toluene	<1.0		1.0		ug/L			06/21/11 08:40	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 660-111569/4
Matrix: Water
Analysis Batch: 111569

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			06/21/11 08:40	1
Trichloroethene	<1.0		1.0		ug/L			06/21/11 08:40	1
Trichlorofluoromethane	<5.0		5.0		ug/L			06/21/11 08:40	1
Vinyl chloride	<1.0		1.0		ug/L			06/21/11 08:40	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*06/21/11 08:40*	*1*

Lab Sample ID: LCS 660-111569/3
Matrix: Water
Analysis Batch: 111569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,1,1,2-Tetrachloroethane	20.0	19.2		ug/L		96	70 - 130
1,1,1-Trichloroethane	20.0	21.2		ug/L		106	63 - 132
1,1,2,2-Tetrachloroethane	20.0	22.6		ug/L		113	70 - 130
1,1,2-Trichloroethane	20.0	22.1		ug/L		111	70 - 130
1,1-Dichloroethane	20.0	20.7		ug/L		104	66 - 130
1,1-Dichloroethene	20.0	16.9		ug/L		85	51 - 150
1,1-Dichloropropene	20.0	19.7		ug/L		98	65 - 136
1,2,3-Trichlorobenzene	20.0	22.0		ug/L		110	58 - 132
1,2,3-Trichloropropane	20.0	23.9		ug/L		120	66 - 130
1,2,4-Trichlorobenzene	20.0	20.4		ug/L		102	66 - 130
1,2,4-Trimethylbenzene	20.0	20.7		ug/L		104	70 - 132
1,2-Dibromo-3-Chloropropane	20.0	21.7		ug/L		109	63 - 130
1,2-Dichlorobenzene	20.0	21.0		ug/L		105	70 - 130
1,2-Dichloroethane	20.0	21.7		ug/L		109	70 - 130
1,2-Dichloropropane	20.0	21.9		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	20.0	20.0		ug/L		100	65 - 134
1,3-Dichlorobenzene	20.0	21.8		ug/L		109	70 - 130
1,3-Dichloropropane	20.0	22.2		ug/L		111	70 - 130
1,4-Dichlorobenzene	20.0	20.4		ug/L		102	70 - 130
2,2-Dichloropropane	20.0	19.7		ug/L		99	66 - 134
2-Chlorotoluene	20.0	19.7		ug/L		98	70 - 130
4-Chlorotoluene	20.0	20.9		ug/L		105	70 - 130
4-Isopropyltoluene	20.0	20.5		ug/L		103	65 - 134
Benzene	20.0	21.1		ug/L		106	68 - 134
Bromobenzene	20.0	21.4		ug/L		107	70 - 130
Bromoform	20.0	18.2		ug/L		91	65 - 130
Bromomethane	20.0	33.5	*	ug/L		167	22 - 150
Chlorodibromomethane	20.0	19.0		ug/L		95	70 - 130
Carbon tetrachloride	20.0	19.4		ug/L		97	61 - 134
Chlorobenzene	20.0	20.8		ug/L		104	70 - 130
Chloroethane	20.0	19.7		ug/L		99	39 - 150
Chloroform	20.0	21.5		ug/L		108	68 - 130
Chloromethane	20.0	24.2		ug/L		121	35 - 150
cis-1,2-Dichloroethene	20.0	21.9		ug/L		109	66 - 130
Dibromomethane	20.0	21.7		ug/L		108	70 - 130
Dichlorobromomethane	20.0	21.1		ug/L		105	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 660-111569/3
Matrix: Water
Analysis Batch: 111569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Ethylbenzene	20.0	21.3		ug/L		106	70 - 130
Ethylene Dibromide	20.0	22.0		ug/L		110	66 - 130
Hexachlorobutadiene	20.0	19.7		ug/L		99	62 - 143
Methylene Chloride	20.0	20.8		ug/L		104	57 - 130
Naphthalene	20.0	21.4		ug/L		107	50 - 136
n-Butylbenzene	20.0	19.1		ug/L		96	61 - 131
o-Xylene	20.0	19.7		ug/L		98	69 - 130
sec-Butylbenzene	20.0	20.1		ug/L		101	68 - 133
Styrene	20.0	18.9		ug/L		94	68 - 131
tert-Butylbenzene	20.0	19.9		ug/L		100	64 - 130
Tetrachloroethene	20.0	20.8		ug/L		104	50 - 143
Toluene	20.0	21.4		ug/L		107	70 - 131
trans-1,2-Dichloroethene	20.0	20.7		ug/L		104	62 - 139
Trichloroethene	20.0	20.7		ug/L		103	63 - 139
Trichlorofluoromethane	20.0	25.6		ug/L		128	62 - 146
Vinyl chloride	20.0	24.7		ug/L		124	48 - 147

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: 660-41784-7 MS
Matrix: Water
Analysis Batch: 111569

Client Sample ID: MB3-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
1,1,1,2-Tetrachloroethane	<1.0		20.0	20.6		ug/L		103	70 - 130
1,1,1-Trichloroethane	<1.0		20.0	22.3		ug/L		111	63 - 132
1,1,2,2-Tetrachloroethane	<1.0		20.0	22.8		ug/L		114	70 - 130
1,1,2-Trichloroethane	<1.0		20.0	22.8		ug/L		114	70 - 130
1,1-Dichloroethane	<1.0		20.0	21.9		ug/L		109	66 - 130
1,1-Dichloroethene	<1.0		20.0	17.3		ug/L		86	51 - 150
1,1-Dichloropropene	<1.0		20.0	20.9		ug/L		105	65 - 136
1,2,3-Trichlorobenzene	<1.0		20.0	22.4		ug/L		112	58 - 132
1,2,3-Trichloropropane	<1.0		20.0	23.5		ug/L		117	66 - 130
1,2,4-Trichlorobenzene	<1.0		20.0	21.3		ug/L		106	66 - 130
1,2,4-Trimethylbenzene	<1.0		20.0	21.6		ug/L		108	70 - 132
1,2-Dibromo-3-Chloropropane	<5.0		20.0	21.6		ug/L		108	63 - 130
1,2-Dichlorobenzene	<1.0		20.0	22.1		ug/L		111	70 - 130
1,2-Dichloroethane	<1.0		20.0	23.0		ug/L		115	70 - 130
1,2-Dichloropropane	<1.0		20.0	23.1		ug/L		115	70 - 130
1,3,5-Trimethylbenzene	<1.0		20.0	21.2		ug/L		106	65 - 134
1,3-Dichlorobenzene	<1.0		20.0	22.9		ug/L		114	70 - 130
1,3-Dichloropropane	<1.0		20.0	22.7		ug/L		113	70 - 130
1,4-Dichlorobenzene	<1.0		20.0	21.5		ug/L		107	70 - 130
2,2-Dichloropropane	<1.0		20.0	20.5		ug/L		103	66 - 134
2-Chlorotoluene	<1.0		20.0	21.2		ug/L		106	70 - 130
4-Chlorotoluene	<1.0		20.0	22.4		ug/L		112	70 - 130
4-Isopropyltoluene	<1.0		20.0	21.9		ug/L		109	65 - 134
Benzene	<1.0		20.0	22.4		ug/L		112	68 - 134

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 660-41784-7 MS
Matrix: Water
Analysis Batch: 111569

Client Sample ID: MB3-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Bromobenzene	<1.0		20.0	22.4		ug/L		112	70 - 130
Bromoform	<1.0		20.0	18.3		ug/L		91	65 - 130
Bromomethane	<5.0	F *	20.0	30.3	F	ug/L		152	22 - 150
Chlorodibromomethane	<1.0		20.0	19.7		ug/L		99	70 - 130
Carbon tetrachloride	<1.0		20.0	20.3		ug/L		102	61 - 134
Chlorobenzene	<1.0		20.0	22.1		ug/L		110	70 - 130
Chloroethane	<5.0		20.0	20.0		ug/L		100	39 - 150
Chloroform	<1.0		20.0	22.8		ug/L		114	68 - 130
Chloromethane	<4.0		20.0	23.8		ug/L		119	35 - 150
cis-1,2-Dichloroethene	<1.0		20.0	23.1		ug/L		115	66 - 130
Dibromomethane	<1.0		20.0	23.3		ug/L		117	70 - 130
Dichlorobromomethane	<1.0		20.0	22.8		ug/L		114	70 - 130
Ethylbenzene	<1.0		20.0	22.5		ug/L		112	70 - 130
Ethylene Dibromide	<1.0		20.0	22.4		ug/L		112	66 - 130
Hexachlorobutadiene	<1.0		20.0	20.3		ug/L		102	62 - 143
Methylene Chloride	<5.0		20.0	21.0		ug/L		105	57 - 130
Naphthalene	<5.0		20.0	21.9		ug/L		110	50 - 136
n-Butylbenzene	<1.0		20.0	20.3		ug/L		102	61 - 131
o-Xylene	<1.0		20.0	21.0		ug/L		105	69 - 130
sec-Butylbenzene	<1.0		20.0	20.9		ug/L		105	68 - 133
Styrene	<2.0		20.0	20.1		ug/L		101	68 - 131
tert-Butylbenzene	<1.0		20.0	20.9		ug/L		105	64 - 130
Tetrachloroethene	<1.0		20.0	21.5		ug/L		108	50 - 143
Toluene	<1.0		20.0	23.0		ug/L		115	70 - 131
trans-1,2-Dichloroethene	<1.0		20.0	22.2		ug/L		111	62 - 139
Trichloroethene	<1.0		20.0	21.8		ug/L		109	63 - 139
Trichlorofluoromethane	<5.0		20.0	25.9		ug/L		129	62 - 146
Vinyl chloride	<1.0		20.0	24.6		ug/L		123	48 - 147

Surrogate	*MS % Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: 660-41784-6 DU
Matrix: Water
Analysis Batch: 111569

Client Sample ID: MB15-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<1.0		<1.0		ug/L		NC	30
1,1,1-Trichloroethane	<1.0		<1.0		ug/L		NC	30
1,1,2,2-Tetrachloroethane	<1.0		<1.0		ug/L		NC	30
1,1,2-Trichloroethane	<1.0		<1.0		ug/L		NC	30
1,1-Dichloroethane	<1.0		<1.0		ug/L		NC	30
1,1-Dichloroethene	<1.0		<1.0		ug/L		NC	30
1,1-Dichloropropene	<1.0		<1.0		ug/L		NC	30
1,2,3-Trichlorobenzene	<1.0		<1.0		ug/L		NC	30
1,2,3-Trichloropropane	<1.0		<1.0		ug/L		NC	30
1,2,4-Trichlorobenzene	<1.0		<1.0		ug/L		NC	30
1,2,4-Trimethylbenzene	<1.0		<1.0		ug/L		NC	30
1,2-Dibromo-3-Chloropropane	<5.0		<5.0		ug/L		NC	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 660-41784-6 DU
Matrix: Water
Analysis Batch: 111569

Client Sample ID: MB15-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
1,2-Dichlorobenzene	<1.0			<1.0		ug/L				NC	30
1,2-Dichloroethane	<1.0			<1.0		ug/L				NC	30
1,2-Dichloropropane	<1.0			<1.0		ug/L				NC	30
1,3,5-Trimethylbenzene	<1.0			<1.0		ug/L				NC	30
1,3-Dichlorobenzene	<1.0			<1.0		ug/L				NC	30
1,3-Dichloropropane	<1.0			<1.0		ug/L				NC	30
1,4-Dichlorobenzene	<1.0			<1.0		ug/L				NC	30
2,2-Dichloropropane	<1.0			<1.0		ug/L				NC	30
2-Chlorotoluene	<1.0			<1.0		ug/L				NC	30
4-Chlorotoluene	<1.0			<1.0		ug/L				NC	30
4-Isopropyltoluene	<1.0			<1.0		ug/L				NC	30
Benzene	<1.0			<1.0		ug/L				NC	30
Bromobenzene	<1.0			<1.0		ug/L				NC	30
Bromoform	<1.0			<1.0		ug/L				NC	30
Bromomethane	<5.0	*		<5.0	*	ug/L				NC	30
Chlorodibromomethane	<1.0			<1.0		ug/L				NC	30
Carbon tetrachloride	<1.0			<1.0		ug/L				NC	30
Chlorobenzene	<1.0			<1.0		ug/L				NC	30
Chloroethane	<5.0			<5.0		ug/L				NC	30
Chloroform	<1.0			<1.0		ug/L				NC	30
Chloromethane	<4.0			<4.0		ug/L				NC	30
cis-1,2-Dichloroethene	<1.0			<1.0		ug/L				NC	30
Dibromomethane	<1.0			<1.0		ug/L				NC	30
Dichlorobromomethane	<1.0			<1.0		ug/L				NC	30
Ethylbenzene	<1.0			<1.0		ug/L				NC	30
Ethylene Dibromide	<1.0			<1.0		ug/L				NC	30
Hexachlorobutadiene	<1.0			<1.0		ug/L				NC	30
Methylene Chloride	<5.0			<5.0		ug/L				NC	30
m-Xylene & p-Xylene	<2.0			<2.0		ug/L				NC	30
Naphthalene	<5.0			<5.0		ug/L				NC	30
n-Butylbenzene	<1.0			<1.0		ug/L				NC	30
o-Xylene	<1.0			<1.0		ug/L				NC	30
sec-Butylbenzene	<1.0			<1.0		ug/L				NC	30
Styrene	<2.0			<2.0		ug/L				NC	30
tert-Butylbenzene	<1.0			<1.0		ug/L				NC	30
Tetrachloroethene	<1.0			<1.0		ug/L				NC	30
Toluene	<1.0			<1.0		ug/L				NC	30
trans-1,2-Dichloroethene	<1.0			<1.0		ug/L				NC	30
Trichloroethene	<1.0			<1.0		ug/L				NC	30
Trichlorofluoromethane	<5.0			<5.0		ug/L				NC	30
Vinyl chloride	<1.0			<1.0		ug/L				NC	30

Surrogate	*DU % Recovery*	*DU Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 660-111539/5
Matrix: Water
Analysis Batch: 111539

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/20/11 11:31	1

Lab Sample ID: LCS 660-111539/3
Matrix: Water
Analysis Batch: 111539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,4-Dioxane	25.0	23.1		ug/L		93	50 - 150

Lab Sample ID: MB 660-111573/5
Matrix: Water
Analysis Batch: 111573

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/21/11 14:14	1

Lab Sample ID: LCS 660-111573/3
Matrix: Water
Analysis Batch: 111573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,4-Dioxane	25.0	23.8		ug/L		95	50 - 150

Lab Sample ID: 660-41784-3 MS
Matrix: Water
Analysis Batch: 111573

Client Sample ID: Seep 2-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
1,4-Dioxane	<2.0		25.0	20.1		ug/L		80	50 - 150

Lab Sample ID: 660-41784-3 MSD
Matrix: Water
Analysis Batch: 111573

Client Sample ID: Seep 2-0611
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
1,4-Dioxane	<2.0		25.0	21.3		ug/L		85	50 - 150	6	50

Lab Sample ID: MB 660-111644/5
Matrix: Water
Analysis Batch: 111644

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			06/22/11 15:42	1

Lab Sample ID: LCS 660-111644/3
Matrix: Water
Analysis Batch: 111644

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,4-Dioxane	25.0	24.1		ug/L		96	50 - 150

GC/MS VOA

Analysis Batch: 111539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 660-111539/3	Lab Control Sample	Total/NA	Water	8260C SIM	
MB 660-111539/5	Method Blank	Total/NA	Water	8260C SIM	
660-41784-1	Seep C-0611	Total/NA	Water	8260C SIM	
660-41784-2	Mason Branch 2-0611	Total/NA	Water	8260C SIM	
660-41784-5	Dup-1-0611	Total/NA	Water	8260C SIM	

Analysis Batch: 111565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 660-111565/3	Lab Control Sample	Total/NA	Water	8260B	
MB 660-111565/4	Method Blank	Total/NA	Water	8260B	
660-41784-3	Seep 2-0611	Total/NA	Water	8260B	
660-41784-4	Seep 1-0611	Total/NA	Water	8260B	
660-41784-4 DU	Seep 1-0611	Total/NA	Water	8260B	
660-41784-3 MS	Seep 2-0611	Total/NA	Water	8260B	
660-41784-1 - DL	Seep C-0611	Total/NA	Water	8260B	
660-41784-2 - DL	Mason Branch 2-0611	Total/NA	Water	8260B	
660-41784-5 - DL	Dup-1-0611	Total/NA	Water	8260B	
660-41784-11 - DL	MW-5-0611	Total/NA	Water	8260B	
660-41784-13 - DL	MW-19-0611	Total/NA	Water	8260B	
660-41784-15 - DL	MW-14-0611	Total/NA	Water	8260B	
660-41784-20 - DL	Dup-2-0611	Total/NA	Water	8260B	
660-41784-21 - DL	MW-25	Total/NA	Water	8260B	
660-41784-22 - DL	MW-20	Total/NA	Water	8260B	
660-41784-16	MW-28-0611	Total/NA	Water	8260B	
660-41784-17	MW-10-0611	Total/NA	Water	8260B	
660-41784-20	Dup-2-0611	Total/NA	Water	8260B	
660-41784-22	MW-20	Total/NA	Water	8260B	

Analysis Batch: 111569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 660-111569/3	Lab Control Sample	Total/NA	Water	8260B	
MB 660-111569/4	Method Blank	Total/NA	Water	8260B	
660-41784-6	MB15-0611	Total/NA	Water	8260B	
660-41784-7	MB3-0611	Total/NA	Water	8260B	
660-41784-6 DU	MB15-0611	Total/NA	Water	8260B	
660-41784-7 MS	MB3-0611	Total/NA	Water	8260B	
660-41784-10	TB-0611	Total/NA	Water	8260B	
660-41784-8	MB16-0611	Total/NA	Water	8260B	
660-41784-9	MB5-0611	Total/NA	Water	8260B	
660-41784-12	MW-22-0611	Total/NA	Water	8260B	
660-41784-14	MW-3-0611	Total/NA	Water	8260B	
660-41784-18	MW-27-0611	Total/NA	Water	8260B	
660-41784-19	MW-26-0611	Total/NA	Water	8260B	
660-41784-1	Seep C-0611	Total/NA	Water	8260B	
660-41784-2	Mason Branch 2-0611	Total/NA	Water	8260B	
660-41784-5	Dup-1-0611	Total/NA	Water	8260B	
660-41784-11	MW-5-0611	Total/NA	Water	8260B	
660-41784-13	MW-19-0611	Total/NA	Water	8260B	
660-41784-15	MW-14-0611	Total/NA	Water	8260B	
660-41784-21	MW-25	Total/NA	Water	8260B	

GC/MS VOA (Continued)

Analysis Batch: 111573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 660-111573/3	Lab Control Sample	Total/NA	Water	8260C SIM	
MB 660-111573/5	Method Blank	Total/NA	Water	8260C SIM	
660-41784-3	Seep 2-0611	Total/NA	Water	8260C SIM	
660-41784-3 MS	Seep 2-0611	Total/NA	Water	8260C SIM	
660-41784-3 MSD	Seep 2-0611	Total/NA	Water	8260C SIM	
660-41784-4	Seep 1-0611	Total/NA	Water	8260C SIM	
660-41784-6	MB15-0611	Total/NA	Water	8260C SIM	
660-41784-7	MB3-0611	Total/NA	Water	8260C SIM	
660-41784-8	MB16-0611	Total/NA	Water	8260C SIM	
660-41784-9	MB5-0611	Total/NA	Water	8260C SIM	
660-41784-10	TB-0611	Total/NA	Water	8260C SIM	
660-41784-11	MW-5-0611	Total/NA	Water	8260C SIM	
660-41784-12	MW-22-0611	Total/NA	Water	8260C SIM	
660-41784-14	MW-3-0611	Total/NA	Water	8260C SIM	
660-41784-16	MW-28-0611	Total/NA	Water	8260C SIM	
660-41784-17	MW-10-0611	Total/NA	Water	8260C SIM	
660-41784-18	MW-27-0611	Total/NA	Water	8260C SIM	
660-41784-19	MW-26-0611	Total/NA	Water	8260C SIM	
660-41784-20	Dup-2-0611	Total/NA	Water	8260C SIM	

Analysis Batch: 111644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 660-111644/3	Lab Control Sample	Total/NA	Water	8260C SIM	
MB 660-111644/5	Method Blank	Total/NA	Water	8260C SIM	
660-41784-13	MW-19-0611	Total/NA	Water	8260C SIM	
660-41784-15	MW-14-0611	Total/NA	Water	8260C SIM	
660-41784-21	MW-25	Total/NA	Water	8260C SIM	
660-41784-22	MW-20	Total/NA	Water	8260C SIM	

Lab Chronicle

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Client Sample ID: Seep C-0611

Lab Sample ID: 660-41784-1

Date Collected: 06/07/11 11:45

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		10	111539	06/20/11 16:26	RM	TAL TAM
Total/NA	Analysis	8260B	DL	10	111565	06/21/11 10:54	EC	TAL TAM
Total/NA	Analysis	8260B		1	111569	06/21/11 14:29	EC	TAL TAM

Client Sample ID: Mason Branch 2-0611

Lab Sample ID: 660-41784-2

Date Collected: 06/07/11 12:10

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		10	111539	06/20/11 16:52	RM	TAL TAM
Total/NA	Analysis	8260B	DL	10	111565	06/21/11 11:14	EC	TAL TAM
Total/NA	Analysis	8260B		1	111569	06/21/11 14:51	EC	TAL TAM

Client Sample ID: Seep 2-0611

Lab Sample ID: 660-41784-3

Date Collected: 06/07/11 12:55

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111565	06/21/11 08:58	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 14:40	RM	TAL TAM

Client Sample ID: Seep 1-0611

Lab Sample ID: 660-41784-4

Date Collected: 06/07/11 13:05

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111565	06/21/11 09:19	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 16:20	RM	TAL TAM

Client Sample ID: Dup-1-0611

Lab Sample ID: 660-41784-5

Date Collected: 06/07/11 12:00

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		10	111539	06/20/11 18:05	RM	TAL TAM
Total/NA	Analysis	8260B	DL	10	111565	06/21/11 11:34	EC	TAL TAM
Total/NA	Analysis	8260B		1	111569	06/21/11 15:14	EC	TAL TAM

Client Sample ID: MB15-0611 — **Lab Sample ID: 660-41784-6**
Date Collected: 06/07/11 15:25 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111569	06/21/11 09:09	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 16:52	RM	TAL TAM

Client Sample ID: MB3-0611 — **Lab Sample ID: 660-41784-7**
Date Collected: 06/07/11 15:40 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111569	06/21/11 09:31	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 17:17	RM	TAL TAM

Client Sample ID: MB16-0611 — **Lab Sample ID: 660-41784-8**
Date Collected: 06/07/11 15:55 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111569	06/21/11 11:56	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 17:41	RM	TAL TAM

Client Sample ID: MB5-0611 — **Lab Sample ID: 660-41784-9**
Date Collected: 06/07/11 16:10 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111569	06/21/11 12:18	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 18:06	RM	TAL TAM

Client Sample ID: TB-0611 — **Lab Sample ID: 660-41784-10**
Date Collected: 06/07/11 00:00 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111569	06/21/11 11:33	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 18:30	RM	TAL TAM

Client Sample ID: MW-5-0611 — **Lab Sample ID: 660-41784-11**
Date Collected: 06/08/11 11:39 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	5	111565	06/21/11 12:02	EC	TAL TAM
Total/NA	Analysis	8260B		1	111569	06/21/11 15:36	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 18:55	RM	TAL TAM

Client Sample ID: MW-22-0611

Lab Sample ID: 660-41784-12

Date Collected: 06/08/11 13:05

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111569	06/21/11 12:41	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 19:19	RM	TAL TAM

Client Sample ID: MW-19-0611

Lab Sample ID: 660-41784-13

Date Collected: 06/08/11 15:15

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	100	111565	06/21/11 12:43	EC	TAL TAM
Total/NA	Analysis	8260B		10	111569	06/21/11 15:59	EC	TAL TAM
Total/NA	Analysis	8260C SIM		10	111644	06/22/11 16:31	RM	TAL TAM

Client Sample ID: MW-3-0611

Lab Sample ID: 660-41784-14

Date Collected: 06/08/11 15:32

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111569	06/21/11 13:03	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 20:08	RM	TAL TAM

Client Sample ID: MW-14-0611

Lab Sample ID: 660-41784-15

Date Collected: 06/08/11 17:55

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	100	111565	06/21/11 13:06	EC	TAL TAM
Total/NA	Analysis	8260B		10	111569	06/21/11 16:21	EC	TAL TAM
Total/NA	Analysis	8260C SIM		10	111644	06/22/11 18:35	RM	TAL TAM

Client Sample ID: MW-28-0611

Lab Sample ID: 660-41784-16

Date Collected: 06/09/11 10:15

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111565	06/21/11 16:30	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 21:00	RM	TAL TAM

Client Sample ID: MW-10-0611

Lab Sample ID: 660-41784-17

Date Collected: 06/09/11 10:59

Matrix: Water

Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111565	06/21/11 16:51	EC	TAL TAM

Client Sample ID: MW-10-0611 — **Lab Sample ID: 660-41784-17**
Date Collected: 06/09/11 10:59 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 21:24	RM	TAL TAM

Client Sample ID: MW-27-0611 — **Lab Sample ID: 660-41784-18**
Date Collected: 06/09/11 11:30 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111569	06/21/11 13:44	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 21:50	RM	TAL TAM

Client Sample ID: MW-26-0611 — **Lab Sample ID: 660-41784-19**
Date Collected: 06/09/11 12:20 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	111569	06/21/11 14:06	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 22:15	RM	TAL TAM

Client Sample ID: Dup-2-0611 — **Lab Sample ID: 660-41784-20**
Date Collected: 06/09/11 12:00 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	5	111565	06/21/11 13:29	EC	TAL TAM
Total/NA	Analysis	8260B		1	111565	06/21/11 17:11	EC	TAL TAM
Total/NA	Analysis	8260C SIM		1	111573	06/21/11 22:39	RM	TAL TAM

Client Sample ID: MW-25 — **Lab Sample ID: 660-41784-21**
Date Collected: 06/09/11 16:51 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	200	111565	06/21/11 13:49	EC	TAL TAM
Total/NA	Analysis	8260B		20	111569	06/21/11 16:44	EC	TAL TAM
Total/NA	Analysis	8260C SIM		10	111644	06/22/11 19:00	RM	TAL TAM

Client Sample ID: MW-20 — **Lab Sample ID: 660-41784-22**
Date Collected: 06/09/11 17:40 — **Matrix: Water**
Date Received: 06/14/11 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	5	111565	06/21/11 14:09	EC	TAL TAM
Total/NA	Analysis	8260B		1	111565	06/21/11 17:31	EC	TAL TAM

Lab Chronicle

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Client Sample ID: MW-20
Date Collected: 06/09/11 17:40
Date Received: 06/14/11 09:25

Lab Sample ID: 660-41784-22
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		10	111644	06/22/11 19:27	RM	TAL TAM

Laboratory References:
TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Certification Summary

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Tampa	Alabama	State Program	4	40610
TestAmerica Tampa	Florida	NELAC	4	E84282
TestAmerica Tampa	Georgia	State Program	4	905
TestAmerica Tampa	USDA	USDA		P330-11-00177

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL TAM
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL TAM

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Sample Summary

Client: MACTEC Engineering and Consulting Inc
Project/Site: Thermo King - Louisville

TestAmerica Job ID: 660-41784-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-41784-1	Seep C-0611	Water	06/07/11 11:45	06/14/11 09:25
660-41784-2	Mason Branch 2-0611	Water	06/07/11 12:10	06/14/11 09:25
660-41784-3	Seep 2-0611	Water	06/07/11 12:55	06/14/11 09:25
660-41784-4	Seep 1-0611	Water	06/07/11 13:05	06/14/11 09:25
660-41784-5	Dup-1-0611	Water	06/07/11 12:00	06/14/11 09:25
660-41784-6	MB15-0611	Water	06/07/11 15:25	06/14/11 09:25
660-41784-7	MB3-0611	Water	06/07/11 15:40	06/14/11 09:25
660-41784-8	MB16-0611	Water	06/07/11 15:55	06/14/11 09:25
660-41784-9	MB5-0611	Water	06/07/11 16:10	06/14/11 09:25
660-41784-10	TB-0611	Water	06/07/11 00:00	06/14/11 09:25
660-41784-11	MW-5-0611	Water	06/08/11 11:39	06/14/11 09:25
660-41784-12	MW-22-0611	Water	06/08/11 13:05	06/14/11 09:25
660-41784-13	MW-19-0611	Water	06/08/11 15:15	06/14/11 09:25
660-41784-14	MW-3-0611	Water	06/08/11 15:32	06/14/11 09:25
660-41784-15	MW-14-0611	Water	06/08/11 17:55	06/14/11 09:25
660-41784-16	MW-28-0611	Water	06/09/11 10:15	06/14/11 09:25
660-41784-17	MW-10-0611	Water	06/09/11 10:59	06/14/11 09:25
660-41784-18	MW-27-0611	Water	06/09/11 11:30	06/14/11 09:25
660-41784-19	MW-26-0611	Water	06/09/11 12:20	06/14/11 09:25
660-41784-20	Dup-2-0611	Water	06/09/11 12:00	06/14/11 09:25
660-41784-21	MW-25	Water	06/09/11 16:51	06/14/11 09:25
660-41784-22	MW-20	Water	06/09/11 17:40	06/14/11 09:25

660-41784

Chain of Custody Record

TestAmerica Laboratory location: NORTH CANTON, OH

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: MACTEC	Client Project Manager: Ms. R. QUINN	Site Contact:	Lab Contact:	COC No: 016771
Address: 3200 TOWN PT DR. #100	Telephone: 770 421 3400	Telephone:	Telephone:	1 of 3 COCs
City/State/Zip: KENNESAW, GA 30144	Email:	Analysis Turnaround Time (CALENDAR days)	Analyses	
Phone: 770-421-3400		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: TK LOUISVILLE, GA	Method of Shipment/Carrier: FEDEX			
Project Number: 6122-09-0322.103	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	8260B - SIM SPECIFIC VOAs + 1,4 DIOXANE	Sample Specific Notes / Special Instructions:
SEEP@C-0611	6-7-11	1145		X						3					N	G	X	
MASON BRANCH 2-0611	6-7-11	1210		X						3					N	G	X	
SEEP 2-0611	6-7-11	1255		X						3					N	G	X	
SEEP 1-0611	6-7-11	1305		X						3					N	G	X	
DUP-1-0611	6-7-11	1200		X						3					N	G	X	
MB 15-0611	6-7-11	1525		X						3					N	G	X	
MB 3-0611	6-7-11	1540		X						3					N	G	X	
MB 16-0611	6-7-11	1555		X						3					N	G	X	
MB 5-0611	6-7-11	1610		X						3					N	G	X	
TB-0611				X						2					N	G	X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	MACTEC	6-10-11 1930			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
TALL	TALL	6-13-11 1700	Reed Carol McNulty	TA	6/14/11 0925

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TAL 0018-1 (04/10)

5.1°C cu07

07/08/2011

Chain of Custody Record

TestAmerica Laboratory location: NORTH CANTON, OH

Regulatory program: ☐ DW ☐ NPDES ☒ RCRA ☐ Other _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: MACTEC	Client Project Manager: MS. R. QUINN	Site Contact:	Lab Contact:	COC No: 016770
Address: 3200 TOWN POINT DR. #100	Telephone: 770 421 3400	Telephone:	Telephone:	2 of 3 COCs
City/State/Zip: KENNESAW, GA 30144	Email:	Analysis Turnaround Time (in BUSINESS days)	Analyses	
Phone: 770-421-3400		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: TK LOUISVILLE, GA	Method of Shipment/Carrier: FED EX			
Project Number: 6122-09-0322-103	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y or N)	Composite (C) or Grab (G)	8260B - SITE SPECIFIC VOLS + 1,4 DIOXANE	(SIM) 1,4 DIOXANE	Sample Specific Notes / Special Instructions:
MW-5-0611	6-8-11	1139		X						5					N	G	X	X	
MW-22-0611	6-8-11	1305		X						3					N	G	X		
MW-19-0611	6-8-11	1515		X						5					N	G	X	X	
MW-3-0611	6-8-11	1532		X						5					N	G	X	X	
MW-14-0611	6-8-11	1755		X						5					N	G	X	X	
MW-28-0611	6-9-11	1015		X						5					N	G	X	X	
MW-10-0611	6-9-11	1059		X						3					N	G	X		
MW-27-0611	6-9-11	1130		X						5					N	G	X	X	
MW-26-0611	6-9-11	1220		X						5					N	G	X	X	
DUP-2-0611	6-9-11	1200		X						5					N	G	X	X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	MACTEC	6-10-11 1930			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
[signature] TAL		6-13-11 1700	[signature] Terry Burns	TA	6/11/11 945

[signature] Reed Carol McMurry 6/14/11 0925

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Chain of Custody Record

TestAmerica Laboratory location: NORTH CANTON, OH

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: MACTEC	Client Project Manager: Ms. R. Quinn	Site Contact:	Lab Contact:	COC No: 016876
Address: 3200 Town Point Drive #100	Telephone: 770 421 3400	Telephone:	Telephone:	3 of 3 COCs
City/State/Zip: Kennesaw, GA 30144	Email:	Analysis Turnaround Time (in BUS days)	Analyses	
Phone: 7704213400		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: TK Louisville, GA	Method of Shipment/Carrier: FED EX			
Project Number: 6122-09-0322-103	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C) or Grab (G)	8260B - SITE SPECIFIC VOLS + 1,4 DIOXANE	(SIM) 1,4 Dioxane									Sample Specific Notes / Special Instructions:
MW-25	6-9-11	1651		X						5					NG		X	X									
MW-20	6-9-11	1740		X						5					NG		X	X									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	MACTEC	6-10-11 1930			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
	TALE	6-13-11 1700		TA	6/11/11 945

Reed and McNulty 6/14/11 0925

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TAL 0018-1 (04/10)

Login Sample Receipt Checklist

Client: MACTEC Engineering and Consulting Inc

Job Number: 660-41784-1

Login Number: 41784

List Number: 1

Creator: McNulty, Carol

List Source: TestAmerica Tampa

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	5.1 degrees C CU-07
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

January 30, 2012

Rhonda Quinn
AMEC E&I, Inc.
3200 Town Point Dr.
Kennesaw GA 30144

TEL: (770) 421-3400
FAX: (770) 421-3486

RE: Thermo King Site - Louisville GA

Dear Rhonda Quinn: Order No: 1201F45

Analytical Environmental Services, Inc. received 26 samples on January 19, 2012 4:42 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/11-06/30/12.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Kathryn E. Waters

Kathryn Waters
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1201F45

Date: 1/19/12 Page 1 of 2

COMPANY: AMEC E+I	ADDRESS: 3200 Town Point Dr Ste 100 Kennesaw, GA 30144
PHONE: 770-421-3400	FAX: 770-421-3486
SAMPLED BY: D. Howard / J Moore	SIGNATURE: D Howard / J Moore

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) H+I	PRESERVATION (See codes) N+I	REMARKS	No # of Containers
1	TB-1-0112	1/17/12	0830	X		W	X			2
2	SEEP-B-0112		1110	X		SW	X			2
3	SEEP-C-0112		0855	X		SW	X			2
4	SEEP-2-0112		1055	X		SW	X			2
5	DUP-1-0112		1200	X		SW	X			2
6	SEEP-L-0112		1040	X		SW	X			2
7	SEEP-I-0112		1025	X		SW	X			2
8	SEEP-G-0112		1005	X		SW	X			2
9	SEEP-H-0112		0950	X		SW	X			2
10	MB-2-0112		0923	X		SW	X			2
11	MB-5-0112		1205	X		SW	X			2
12	MB-15-0112		1150	X		SW	X			2
13	MB-3-0112		1140	X		SW	X			2
14	MB-16-0112	↓	1125	X		SW	X			2

ANALYSIS REQUESTED: VOC List + 1,4-dioxane; SIM 1,4-Dioxane

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Daniel Howard	1/19/12 / 1642	1: Mich +	1.19.12 1642
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: TK Louisville

PROJECT #: 6122090322.201.01

SITE ADDRESS: Louisville, GA

SEND REPORT TO: Rhonda Quinn

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers

Turnaround Time Request

- [X] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other

STATE PROGRAM (if any):

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

(CLIENT) FedEx UPS MAIL COURIER GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 120145

Date: 1/19/12 Page 2 of 2

COMPANY:	ADDRESS:
AMEC E+I	3200 Town Point Dr ste 100 Kennesaw, GA 30144
PHONE: 770-421-3400	FAX: 770-421-3486
SAMPLED BY: D. Howard / J Moore	SIGNATURE: D Howard / J Moore

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) H+I	PRESERVATION (See codes) I	ANALYSIS REQUESTED: VOC List 1,4-Dioxane	ANALYSIS REQUESTED: SIM 1,4-Dioxane	REMARKS	No # of Containers
1	MW-10-0112	1/17/12	1520	X		GW	X	X				2
2	MW-22-0112		1620	X		GW	X					2
3	EB-1-0112		1625	X		GW	X					2
4	MW-20-0112	1/18/12	1030	X		GW	X	X				4
5	MW-25-0112		1205	X		GW	X	X				4
6	DUP-2-0112		1200	X		GW	X					2
7	MW-27-0112		1225	X		GW	X	X				4
8	MW-28-0112		1315	X		GW	X	X				4
9	MW-5-0112		1418	X		GW	X	X				4
10	MW-19-0112		1548	X		GW	X	X				4
11	MW-3-0112	1/19/12	0937	X		GW	X	X				4
12	MW-14-0112		1028	X		GW	X	X				4
13												
14												

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: David L Howard	1/19/12 1642	1:	1.19.12 1642
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: TK Louisville

PROJECT #: 612209032-201.01

SITE ADDRESS: Louisville, GA

SEND REPORT TO: Rhonda Quinn

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers

Turnaround Time Request

- ☒ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other

STATE PROGRAM (if any):

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

(CLIENT) FedEx UPS MAIL COURIER

GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client: AMEC E&I, Inc.
Project: Thermo King Site - Louisville GA
Lab ID: 1201F45

Case Narrative

Volatiles Organic Compounds Analysis by Method 8260B:

Trichloroethene values for the QC samples 1201F45-026AMS/MSD are "E" qualified indicating estimated values over linear calibration range due to the level of target analyte present in the unspiked sample.

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TB-1-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 8:30:00 AM
Lab ID:	1201F45-001	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 13:53	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 13:53	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 13:53	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 13:53	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 13:53	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 13:53	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TB-1-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 8:30:00 AM
Lab ID:	1201F45-001	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 13:53	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 13:53	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 13:53	JT
Surr: 4-Bromofluorobenzene	95.5	67.4-123		%REC	157056	1	01/25/2012 13:53	JT
Surr: Dibromofluoromethane	103	75.5-128		%REC	157056	1	01/25/2012 13:53	JT
Surr: Toluene-d8	102	70-120		%REC	157056	1	01/25/2012 13:53	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-B-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 11:10:00 AM
Lab ID:	1201F45-002	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 14:18	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 14:18	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:18	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:18	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:18	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:18	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-B-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 11:10:00 AM
Lab ID:	1201F45-002	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 14:18	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Trichloroethene	2.9	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:18	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 14:18	JT
Surr: 4-Bromofluorobenzene	96.9	67.4-123		%REC	157056	1	01/25/2012 14:18	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	157056	1	01/25/2012 14:18	JT
Surr: Toluene-d8	103	70-120		%REC	157056	1	01/25/2012 14:18	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-C-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 8:55:00 AM
Lab ID:	1201F45-003	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,1,1-Trichloroethane	32	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,1-Dichloroethane	4.0	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,1-Dichloroethene	140	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 14:44	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 14:44	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:44	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:44	JT
Chloroform	2.5	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:44	JT
cis-1,2-Dichloroethene	130	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:44	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-C-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 8:55:00 AM
Lab ID:	1201F45-003	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 14:44	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Trichloroethene	880	10		ug/L	157056	10	01/26/2012 16:33	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 14:44	JT
Vinyl chloride	11	1.0		ug/L	157056	1	01/25/2012 14:44	JT
Surr: 4-Bromofluorobenzene	93.6	67.4-123		%REC	157056	10	01/26/2012 16:33	JT
Surr: 4-Bromofluorobenzene	96.2	67.4-123		%REC	157056	1	01/25/2012 14:44	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	157056	10	01/26/2012 16:33	JT
Surr: Dibromofluoromethane	106	75.5-128		%REC	157056	1	01/25/2012 14:44	JT
Surr: Toluene-d8	103	70-120		%REC	157056	1	01/25/2012 14:44	JT
Surr: Toluene-d8	103	70-120		%REC	157056	10	01/26/2012 16:33	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-2-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 10:55:00 AM
Lab ID:	1201F45-004	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,1-Dichloroethene	1.7	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 15:09	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 15:09	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:09	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:09	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:09	JT
cis-1,2-Dichloroethene	5.7	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:09	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-2-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 10:55:00 AM
Lab ID:	1201F45-004	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 15:09	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Trichloroethene	7.4	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:09	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 15:09	JT
Surr: 4-Bromofluorobenzene	96.7	67.4-123		%REC	157056	1	01/25/2012 15:09	JT
Surr: Dibromofluoromethane	107	75.5-128		%REC	157056	1	01/25/2012 15:09	JT
Surr: Toluene-d8	105	70-120		%REC	157056	1	01/25/2012 15:09	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-1-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 12:00:00 PM
Lab ID:	1201F45-005	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,1,1-Trichloroethane	25	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,1-Dichloroethane	5.4	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,1-Dichloroethene	120	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 15:34	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 15:34	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
4-Isopropyltoluene	1.1	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:34	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:34	JT
Chloroform	1.9	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:34	JT
cis-1,2-Dichloroethene	190	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:34	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-1-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 12:00:00 PM
Lab ID:	1201F45-005	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 15:34	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Trichloroethene	670	10		ug/L	157056	10	01/26/2012 16:59	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 15:34	JT
Vinyl chloride	16	1.0		ug/L	157056	1	01/25/2012 15:34	JT
Surr: 4-Bromofluorobenzene	92.9	67.4-123		%REC	157056	10	01/26/2012 16:59	JT
Surr: 4-Bromofluorobenzene	95.5	67.4-123		%REC	157056	1	01/25/2012 15:34	JT
Surr: Dibromofluoromethane	106	75.5-128		%REC	157056	1	01/25/2012 15:34	JT
Surr: Dibromofluoromethane	106	75.5-128		%REC	157056	10	01/26/2012 16:59	JT
Surr: Toluene-d8	103	70-120		%REC	157056	1	01/25/2012 15:34	JT
Surr: Toluene-d8	104	70-120		%REC	157056	10	01/26/2012 16:59	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-L-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 10:40:00 AM
Lab ID:	1201F45-006	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/26/2012 12:22	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/26/2012 12:22	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Benzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:22	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:22	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:22	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:22	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-L-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 10:40:00 AM
Lab ID:	1201F45-006	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/26/2012 12:22	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Styrene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Toluene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:22	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/26/2012 12:22	JT
Surr: 4-Bromofluorobenzene	94.1	67.4-123		%REC	157056	1	01/26/2012 12:22	JT
Surr: Dibromofluoromethane	107	75.5-128		%REC	157056	1	01/26/2012 12:22	JT
Surr: Toluene-d8	104	70-120		%REC	157056	1	01/26/2012 12:22	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-I-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 10:25:00 AM
Lab ID:	1201F45-007	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 16:25	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 16:25	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:25	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:25	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:25	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:25	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-I-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 10:25:00 AM
Lab ID:	1201F45-007	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 16:25	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:25	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 16:25	JT
Surr: 4-Bromofluorobenzene	95.5	67.4-123		%REC	157056	1	01/25/2012 16:25	JT
Surr: Dibromofluoromethane	105	75.5-128		%REC	157056	1	01/25/2012 16:25	JT
Surr: Toluene-d8	101	70-120		%REC	157056	1	01/25/2012 16:25	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-G-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 10:05:00 AM
Lab ID:	1201F45-008	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,1-Dichloroethene	1.9	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 16:50	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 16:50	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:50	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:50	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:50	JT
cis-1,2-Dichloroethene	7.4	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:50	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-G-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 10:05:00 AM
Lab ID:	1201F45-008	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 16:50	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Trichloroethene	2.6	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 16:50	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 16:50	JT
Surr: 4-Bromofluorobenzene	94.9	67.4-123		%REC	157056	1	01/25/2012 16:50	JT
Surr: Dibromofluoromethane	107	75.5-128		%REC	157056	1	01/25/2012 16:50	JT
Surr: Toluene-d8	103	70-120		%REC	157056	1	01/25/2012 16:50	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-H-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 9:50:00 AM
Lab ID:	1201F45-009	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,1-Dichloroethene	2.3	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 17:15	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 17:15	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:15	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:15	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:15	JT
cis-1,2-Dichloroethene	16	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:15	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-H-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 9:50:00 AM
Lab ID:	1201F45-009	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 17:15	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Trichloroethene	2.0	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:15	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 17:15	JT
Surr: 4-Bromofluorobenzene	96.4	67.4-123		%REC	157056	1	01/25/2012 17:15	JT
Surr: Dibromofluoromethane	107	75.5-128		%REC	157056	1	01/25/2012 17:15	JT
Surr: Toluene-d8	104	70-120		%REC	157056	1	01/25/2012 17:15	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-2-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 9:23:00 AM
Lab ID:	1201F45-010	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,1,1-Trichloroethane	13	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,1-Dichloroethane	1.5	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,1-Dichloroethene	53	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 17:41	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 17:41	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:41	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:41	JT
Chloroform	1.3	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:41	JT
cis-1,2-Dichloroethene	85	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:41	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-2-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 9:23:00 AM
Lab ID:	1201F45-010	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 17:41	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Trichloroethene	340	10		ug/L	157056	10	01/26/2012 17:24	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 17:41	JT
Vinyl chloride	2.5	1.0		ug/L	157056	1	01/25/2012 17:41	JT
Surr: 4-Bromofluorobenzene	94.4	67.4-123		%REC	157056	1	01/25/2012 17:41	JT
Surr: 4-Bromofluorobenzene	94.7	67.4-123		%REC	157056	10	01/26/2012 17:24	JT
Surr: Dibromofluoromethane	105	75.5-128		%REC	157056	1	01/25/2012 17:41	JT
Surr: Dibromofluoromethane	108	75.5-128		%REC	157056	10	01/26/2012 17:24	JT
Surr: Toluene-d8	105	70-120		%REC	157056	1	01/25/2012 17:41	JT
Surr: Toluene-d8	107	70-120		%REC	157056	10	01/26/2012 17:24	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-5-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 12:05:00 PM
Lab ID:	1201F45-011	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 18:06	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 18:06	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:06	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:06	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:06	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:06	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-5-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 12:05:00 PM
Lab ID:	1201F45-011	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 18:06	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:06	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 18:06	JT
Surr: 4-Bromofluorobenzene	95.5	67.4-123		%REC	157056	1	01/25/2012 18:06	JT
Surr: Dibromofluoromethane	107	75.5-128		%REC	157056	1	01/25/2012 18:06	JT
Surr: Toluene-d8	105	70-120		%REC	157056	1	01/25/2012 18:06	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-15-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 11:50:00 AM
Lab ID:	1201F45-012	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 18:31	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 18:31	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:31	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:31	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:31	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:31	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-15-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 11:50:00 AM
Lab ID:	1201F45-012	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 18:31	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:31	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 18:31	JT
Surr: 4-Bromofluorobenzene	95.4	67.4-123		%REC	157056	1	01/25/2012 18:31	JT
Surr: Dibromofluoromethane	106	75.5-128		%REC	157056	1	01/25/2012 18:31	JT
Surr: Toluene-d8	105	70-120		%REC	157056	1	01/25/2012 18:31	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-3-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 11:40:00 AM
Lab ID:	1201F45-013	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 18:57	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 18:57	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:57	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:57	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:57	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:57	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-3-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 11:40:00 AM
Lab ID:	1201F45-013	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 18:57	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 18:57	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 18:57	JT
Surr: 4-Bromofluorobenzene	94.1	67.4-123		%REC	157056	1	01/25/2012 18:57	JT
Surr: Dibromofluoromethane	105	75.5-128		%REC	157056	1	01/25/2012 18:57	JT
Surr: Toluene-d8	105	70-120		%REC	157056	1	01/25/2012 18:57	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-16-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 11:25:00 AM
Lab ID:	1201F45-014	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 19:22	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 19:22	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 19:22	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 19:22	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 19:22	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 19:22	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-16-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 11:25:00 AM
Lab ID:	1201F45-014	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 19:22	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 19:22	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 19:22	JT
Surr: 4-Bromofluorobenzene	95.9	67.4-123		%REC	157056	1	01/25/2012 19:22	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	157056	1	01/25/2012 19:22	JT
Surr: Toluene-d8	104	70-120		%REC	157056	1	01/25/2012 19:22	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-10-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 3:20:00 PM
Lab ID:	1201F45-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/26/2012 12:47	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/26/2012 12:47	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Benzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:47	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:47	JT
Chloroform	1.8	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:47	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:47	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-10-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 3:20:00 PM
Lab ID:	1201F45-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/26/2012 12:47	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Styrene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Toluene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Trichloroethene	2.9	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/26/2012 12:47	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/26/2012 12:47	JT
Surr: 4-Bromofluorobenzene	96.4	67.4-123		%REC	157056	1	01/26/2012 12:47	JT
Surr: Dibromofluoromethane	107	75.5-128		%REC	157056	1	01/26/2012 12:47	JT
Surr: Toluene-d8	104	70-120		%REC	157056	1	01/26/2012 12:47	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-22-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 4:20:00 PM
Lab ID:	1201F45-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 20:13	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 20:13	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:13	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:13	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:13	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:13	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-22-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 4:20:00 PM
Lab ID:	1201F45-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 20:13	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:13	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 20:13	JT
Surr: 4-Bromofluorobenzene	93.8	67.4-123		%REC	157056	1	01/25/2012 20:13	JT
Surr: Dibromofluoromethane	106	75.5-128		%REC	157056	1	01/25/2012 20:13	JT
Surr: Toluene-d8	105	70-120		%REC	157056	1	01/25/2012 20:13	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	EB-1-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 4:25:00 PM
Lab ID:	1201F45-017	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,1-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 20:38	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 20:38	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:38	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:38	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:38	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:38	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	EB-1-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/17/2012 4:25:00 PM
Lab ID:	1201F45-017	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 20:38	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Toluene	1.6	1.0		ug/L	157056	1	01/25/2012 20:38	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 20:38	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/25/2012 20:38	JT
Surr: 4-Bromofluorobenzene	94.2	67.4-123		%REC	157056	1	01/25/2012 20:38	JT
Surr: Dibromofluoromethane	105	75.5-128		%REC	157056	1	01/25/2012 20:38	JT
Surr: Toluene-d8	103	70-120		%REC	157056	1	01/25/2012 20:38	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-20-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 10:30:00 AM
Lab ID:	1201F45-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,1-Dichloroethene	6.3	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 21:03	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 21:03	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:03	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:03	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:03	JT
cis-1,2-Dichloroethene	310	10		ug/L	157056	10	01/26/2012 17:49	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:03	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-20-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 10:30:00 AM
Lab ID:	1201F45-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 21:03	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Trichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:03	JT
Vinyl chloride	2.0	1.0		ug/L	157056	1	01/25/2012 21:03	JT
Surr: 4-Bromofluorobenzene	93.2	67.4-123		%REC	157056	1	01/25/2012 21:03	JT
Surr: 4-Bromofluorobenzene	92.7	67.4-123		%REC	157056	10	01/26/2012 17:49	JT
Surr: Dibromofluoromethane	105	75.5-128		%REC	157056	10	01/26/2012 17:49	JT
Surr: Dibromofluoromethane	107	75.5-128		%REC	157056	1	01/25/2012 21:03	JT
Surr: Toluene-d8	103	70-120		%REC	157056	1	01/25/2012 21:03	JT
Surr: Toluene-d8	105	70-120		%REC	157056	10	01/26/2012 17:49	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	157103	1	01/23/2012 18:18	JT
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	157103	1	01/23/2012 18:18	JT
Surr: Dibromofluoromethane	100	70-130		%REC	157103	1	01/23/2012 18:18	JT
Surr: Toluene-d8	100	70-130		%REC	157103	1	01/23/2012 18:18	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-25-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 12:05:00 PM
Lab ID:	1201F45-019	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,1-Dichloroethene	34	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/25/2012 21:29	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/25/2012 21:29	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Benzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:29	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:29	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:29	JT
cis-1,2-Dichloroethene	1000	100		ug/L	157056	100	01/26/2012 16:08	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:29	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-25-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 12:05:00 PM
Lab ID:	1201F45-019	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/25/2012 21:29	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Styrene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Toluene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Trichloroethene	4700	100		ug/L	157056	100	01/26/2012 16:08	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/25/2012 21:29	JT
Vinyl chloride	36	1.0		ug/L	157056	1	01/25/2012 21:29	JT
Surr: 4-Bromofluorobenzene	93.6	67.4-123		%REC	157056	1	01/25/2012 21:29	JT
Surr: 4-Bromofluorobenzene	93.5	67.4-123		%REC	157056	100	01/26/2012 16:08	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	157056	1	01/25/2012 21:29	JT
Surr: Dibromofluoromethane	108	75.5-128		%REC	157056	100	01/26/2012 16:08	JT
Surr: Toluene-d8	102	70-120		%REC	157056	1	01/25/2012 21:29	JT
Surr: Toluene-d8	105	70-120		%REC	157056	100	01/26/2012 16:08	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	157103	1	01/23/2012 18:44	JT
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	157103	1	01/23/2012 18:44	JT
Surr: Dibromofluoromethane	99.8	70-130		%REC	157103	1	01/23/2012 18:44	JT
Surr: Toluene-d8	98	70-130		%REC	157103	1	01/23/2012 18:44	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-2-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 12:00:00 PM
Lab ID:	1201F45-020	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,1-Dichloroethene	33	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157060	1	01/26/2012 01:15	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
1,4-Dioxane	BRL	100		ug/L	157060	1	01/26/2012 01:15	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
2-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
4-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Benzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Bromobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Bromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Bromodichloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Bromoform	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Bromomethane	BRL	5.0		ug/L	157060	1	01/26/2012 01:15	JT
Carbon tetrachloride	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Chlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Chloroethane	BRL	5.0		ug/L	157060	1	01/26/2012 01:15	JT
Chloroform	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Chloromethane	BRL	5.0		ug/L	157060	1	01/26/2012 01:15	JT
cis-1,2-Dichloroethene	990	100		ug/L	157060	100	01/26/2012 20:19	JT
Dibromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Dibromomethane	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 01:15	JT
Ethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-2-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 12:00:00 PM
Lab ID:	1201F45-020	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Isopropylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
m,p-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Methylene chloride	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
n-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
n-Propylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Naphthalene	BRL	5.0		ug/L	157060	1	01/26/2012 01:15	JT
o-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
sec-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Styrene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
tert-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Tetrachloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Toluene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Trichloroethene	4400	100		ug/L	157060	100	01/26/2012 20:19	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 01:15	JT
Vinyl chloride	32	1.0		ug/L	157060	1	01/26/2012 01:15	JT
Surr: 4-Bromofluorobenzene	93.1	67.4-123		%REC	157060	1	01/26/2012 01:15	JT
Surr: 4-Bromofluorobenzene	93.5	67.4-123		%REC	157060	100	01/26/2012 20:19	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	157060	1	01/26/2012 01:15	JT
Surr: Dibromofluoromethane	109	75.5-128		%REC	157060	100	01/26/2012 20:19	JT
Surr: Toluene-d8	102	70-120		%REC	157060	1	01/26/2012 01:15	JT
Surr: Toluene-d8	107	70-120		%REC	157060	100	01/26/2012 20:19	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-27-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 12:25:00 PM
Lab ID:	1201F45-021	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,1-Dichloroethene	2.4	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157060	1	01/26/2012 18:14	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
1,4-Dioxane	BRL	100		ug/L	157060	1	01/26/2012 18:14	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
2-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
4-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Benzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Bromobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Bromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Bromodichloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Bromoform	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Bromomethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:14	JT
Carbon tetrachloride	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Chlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Chloroethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:14	JT
Chloroform	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Chloromethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:14	JT
cis-1,2-Dichloroethene	10	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Dibromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Dibromomethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:14	JT
Ethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-27-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 12:25:00 PM
Lab ID:	1201F45-021	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Isopropylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
m,p-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Methylene chloride	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
n-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
n-Propylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Naphthalene	BRL	5.0		ug/L	157060	1	01/26/2012 18:14	JT
o-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
sec-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Styrene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
tert-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Tetrachloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Toluene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Trichloroethene	5.8	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:14	JT
Vinyl chloride	BRL	1.0		ug/L	157060	1	01/26/2012 18:14	JT
Surr: 4-Bromofluorobenzene	93.3	67.4-123		%REC	157060	1	01/26/2012 18:14	JT
Surr: Dibromofluoromethane	107	75.5-128		%REC	157060	1	01/26/2012 18:14	JT
Surr: Toluene-d8	105	70-120		%REC	157060	1	01/26/2012 18:14	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	157103	1	01/23/2012 19:11	JT
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	157103	1	01/23/2012 19:11	JT
Surr: Dibromofluoromethane	99.8	70-130		%REC	157103	1	01/23/2012 19:11	JT
Surr: Toluene-d8	99.8	70-130		%REC	157103	1	01/23/2012 19:11	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-28-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 1:15:00 PM
Lab ID:	1201F45-022	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,1-Dichloroethene	1.8	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157056	1	01/26/2012 13:12	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
1,4-Dioxane	BRL	100		ug/L	157056	1	01/26/2012 13:12	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
2-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
4-Chlorotoluene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Benzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Bromobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Bromochloromethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Bromodichloromethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Bromoform	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Bromomethane	BRL	5.0		ug/L	157056	1	01/26/2012 13:12	JT
Carbon tetrachloride	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Chlorobenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Chloroethane	BRL	5.0		ug/L	157056	1	01/26/2012 13:12	JT
Chloroform	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Chloromethane	BRL	5.0		ug/L	157056	1	01/26/2012 13:12	JT
cis-1,2-Dichloroethene	14	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Dibromochloromethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Dibromomethane	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157056	1	01/26/2012 13:12	JT
Ethylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-28-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 1:15:00 PM
Lab ID:	1201F45-022	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Isopropylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
m,p-Xylene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Methylene chloride	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
n-Butylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
n-Propylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Naphthalene	BRL	5.0		ug/L	157056	1	01/26/2012 13:12	JT
o-Xylene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
sec-Butylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Styrene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
tert-Butylbenzene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Tetrachloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Toluene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Trichloroethene	4.3	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157056	1	01/26/2012 13:12	JT
Vinyl chloride	BRL	1.0		ug/L	157056	1	01/26/2012 13:12	JT
Surr: 4-Bromofluorobenzene	95.7	67.4-123		%REC	157056	1	01/26/2012 13:12	JT
Surr: Dibromofluoromethane	108	75.5-128		%REC	157056	1	01/26/2012 13:12	JT
Surr: Toluene-d8	106	70-120		%REC	157056	1	01/26/2012 13:12	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	157103	1	01/23/2012 19:38	JT
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	157103	1	01/23/2012 19:38	JT
Surr: Dibromofluoromethane	100	70-130		%REC	157103	1	01/23/2012 19:38	JT
Surr: Toluene-d8	99.1	70-130		%REC	157103	1	01/23/2012 19:38	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-5-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 2:18:00 PM
Lab ID:	1201F45-023	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,1,1-Trichloroethane	1.8	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,1-Dichloroethene	12	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157060	1	01/26/2012 19:04	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
1,4-Dioxane	BRL	100		ug/L	157060	1	01/26/2012 19:04	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
2-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
4-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Benzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Bromobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Bromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Bromodichloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Bromoform	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Bromomethane	BRL	5.0		ug/L	157060	1	01/26/2012 19:04	JT
Carbon tetrachloride	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Chlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Chloroethane	BRL	5.0		ug/L	157060	1	01/26/2012 19:04	JT
Chloroform	1.8	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Chloromethane	BRL	5.0		ug/L	157060	1	01/26/2012 19:04	JT
cis-1,2-Dichloroethene	3.6	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Dibromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Dibromomethane	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 19:04	JT
Ethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-5-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 2:18:00 PM
Lab ID:	1201F45-023	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Isopropylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
m,p-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Methylene chloride	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
n-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
n-Propylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Naphthalene	BRL	5.0		ug/L	157060	1	01/26/2012 19:04	JT
o-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
sec-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Styrene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
tert-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Tetrachloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Toluene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Trichloroethene	230	10		ug/L	157060	10	01/26/2012 20:45	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 19:04	JT
Vinyl chloride	BRL	1.0		ug/L	157060	1	01/26/2012 19:04	JT
Surr: 4-Bromofluorobenzene	93.7	67.4-123		%REC	157060	1	01/26/2012 19:04	JT
Surr: 4-Bromofluorobenzene	92.8	67.4-123		%REC	157060	10	01/26/2012 20:45	JT
Surr: Dibromofluoromethane	108	75.5-128		%REC	157060	1	01/26/2012 19:04	JT
Surr: Dibromofluoromethane	108	75.5-128		%REC	157060	10	01/26/2012 20:45	JT
Surr: Toluene-d8	105	70-120		%REC	157060	10	01/26/2012 20:45	JT
Surr: Toluene-d8	108	70-120		%REC	157060	1	01/26/2012 19:04	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	157103	1	01/23/2012 20:04	JT
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	157103	1	01/23/2012 20:04	JT
Surr: Dibromofluoromethane	100	70-130		%REC	157103	1	01/23/2012 20:04	JT
Surr: Toluene-d8	100	70-130		%REC	157103	1	01/23/2012 20:04	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-19-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 3:48:00 PM
Lab ID:	1201F45-024	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**			**(SW5030B)**				
1,1,1,2-Tetrachloroethane	10	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,1,1-Trichloroethane	7.4	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,1-Dichloroethene	45	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157060	1	01/26/2012 02:30	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
1,4-Dioxane	BRL	100		ug/L	157060	1	01/26/2012 02:30	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
2-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
4-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Benzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Bromobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Bromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Bromodichloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Bromoform	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Bromomethane	BRL	5.0		ug/L	157060	1	01/26/2012 02:30	JT
Carbon tetrachloride	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Chlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Chloroethane	BRL	5.0		ug/L	157060	1	01/26/2012 02:30	JT
Chloroform	1.9	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Chloromethane	BRL	5.0		ug/L	157060	1	01/26/2012 02:30	JT
cis-1,2-Dichloroethene	12	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Dibromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Dibromomethane	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 02:30	JT
Ethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-19-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/18/2012 3:48:00 PM
Lab ID:	1201F45-024	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Isopropylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
m,p-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Methylene chloride	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
n-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
n-Propylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Naphthalene	BRL	5.0		ug/L	157060	1	01/26/2012 02:30	JT
o-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
sec-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Styrene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
tert-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Tetrachloroethene	2.3	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Toluene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Trichloroethene	5900	100		ug/L	157060	100	01/26/2012 19:54	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 02:30	JT
Vinyl chloride	BRL	1.0		ug/L	157060	1	01/26/2012 02:30	JT
Surr: 4-Bromofluorobenzene	92.5	67.4-123		%REC	157060	100	01/26/2012 19:54	JT
Surr: 4-Bromofluorobenzene	96.5	67.4-123		%REC	157060	1	01/26/2012 02:30	JT
Surr: Dibromofluoromethane	106	75.5-128		%REC	157060	1	01/26/2012 02:30	JT
Surr: Dibromofluoromethane	109	75.5-128		%REC	157060	100	01/26/2012 19:54	JT
Surr: Toluene-d8	103	70-120		%REC	157060	1	01/26/2012 02:30	JT
Surr: Toluene-d8	105	70-120		%REC	157060	100	01/26/2012 19:54	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	157103	1	01/23/2012 20:31	JT
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	157103	1	01/23/2012 20:31	JT
Surr: Dibromofluoromethane	99.7	70-130		%REC	157103	1	01/23/2012 20:31	JT
Surr: Toluene-d8	97.9	70-130		%REC	157103	1	01/23/2012 20:31	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-3-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/19/2012 9:37:00 AM
Lab ID:	1201F45-025	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,1-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,1-Dichloroethene	1.3	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157060	1	01/26/2012 18:39	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
1,4-Dioxane	BRL	100		ug/L	157060	1	01/26/2012 18:39	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
2-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
4-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Benzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Bromobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Bromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Bromodichloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Bromoform	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Bromomethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:39	JT
Carbon tetrachloride	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Chlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Chloroethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:39	JT
Chloroform	2.8	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Chloromethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:39	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Dibromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Dibromomethane	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:39	JT
Ethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-3-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/19/2012 9:37:00 AM
Lab ID:	1201F45-025	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Isopropylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
m,p-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Methylene chloride	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
n-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
n-Propylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Naphthalene	BRL	5.0		ug/L	157060	1	01/26/2012 18:39	JT
o-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
sec-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Styrene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
tert-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Tetrachloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Toluene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Trichloroethene	1.3	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 18:39	JT
Vinyl chloride	BRL	1.0		ug/L	157060	1	01/26/2012 18:39	JT
Surr: 4-Bromofluorobenzene	94.5	67.4-123		%REC	157060	1	01/26/2012 18:39	JT
Surr: Dibromofluoromethane	110	75.5-128		%REC	157060	1	01/26/2012 18:39	JT
Surr: Toluene-d8	106	70-120		%REC	157060	1	01/26/2012 18:39	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	157103	1	01/23/2012 20:58	JT
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	157103	1	01/23/2012 20:58	JT
Surr: Dibromofluoromethane	100	70-130		%REC	157103	1	01/23/2012 20:58	JT
Surr: Toluene-d8	99.8	70-130		%REC	157103	1	01/23/2012 20:58	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-14-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/19/2012 10:28:00 AM
Lab ID:	1201F45-026	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,1-Dichloroethane	4.5	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,1-Dichloroethene	110	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,1-Dichloropropene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	157060	1	01/26/2012 03:21	JT
1,2-Dibromoethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,2-Dichloroethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,3-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
1,4-Dioxane	BRL	100		ug/L	157060	1	01/26/2012 03:21	JT
2,2-Dichloropropane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
2-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
4-Chlorotoluene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
4-Isopropyltoluene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Benzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Bromobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Bromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Bromodichloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Bromoform	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Bromomethane	BRL	5.0		ug/L	157060	1	01/26/2012 03:21	JT
Carbon tetrachloride	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Chlorobenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Chloroethane	BRL	5.0		ug/L	157060	1	01/26/2012 03:21	JT
Chloroform	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Chloromethane	BRL	5.0		ug/L	157060	1	01/26/2012 03:21	JT
cis-1,2-Dichloroethene	390	10		ug/L	157060	10	01/26/2012 21:10	JT
Dibromochloromethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Dibromomethane	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 03:21	JT
Ethylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jan-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-14-0112
Project Name:	Thermo King Site - Louisville GA	**Collection Date:**	1/19/2012 10:28:00 AM
Lab ID:	1201F45-026	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Isopropylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
m,p-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Methylene chloride	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
n-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
n-Propylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Naphthalene	BRL	5.0		ug/L	157060	1	01/26/2012 03:21	JT
o-Xylene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
sec-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Styrene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
tert-Butylbenzene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Tetrachloroethene	2.8	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Toluene	BRL	1.0		ug/L	157060	1	01/26/2012 03:21	JT
trans-1,2-Dichloroethene	1.1	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Trichloroethene	4000	100		ug/L	157060	100	01/26/2012 19:29	JT
Trichlorofluoromethane	BRL	5.0		ug/L	157060	1	01/26/2012 03:21	JT
Vinyl chloride	1.9	1.0		ug/L	157060	1	01/26/2012 03:21	JT
Surr: 4-Bromofluorobenzene	92.1	67.4-123		%REC	157060	1	01/26/2012 03:21	JT
Surr: 4-Bromofluorobenzene	92.8	67.4-123		%REC	157060	100	01/26/2012 19:29	JT
Surr: 4-Bromofluorobenzene	93.8	67.4-123		%REC	157060	10	01/26/2012 21:10	JT
Surr: Dibromofluoromethane	105	75.5-128		%REC	157060	1	01/26/2012 03:21	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	157060	10	01/26/2012 21:10	JT
Surr: Dibromofluoromethane	106	75.5-128		%REC	157060	100	01/26/2012 19:29	JT
Surr: Toluene-d8	102	70-120		%REC	157060	1	01/26/2012 03:21	JT
Surr: Toluene-d8	105	70-120		%REC	157060	10	01/26/2012 21:10	JT
Surr: Toluene-d8	107	70-120		%REC	157060	100	01/26/2012 19:29	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	157103	1	01/23/2012 21:25	JT
Surr: 4-Bromofluorobenzene	98	70-130		%REC	157103	1	01/23/2012 21:25	JT
Surr: Dibromofluoromethane	100	70-130		%REC	157103	1	01/23/2012 21:25	JT
Surr: Toluene-d8	99.1	70-130		%REC	157103	1	01/23/2012 21:25	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC Work Order Number 1201F45

Checklist completed by MJ 1/30/12
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client __ US Mail ✓ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.8° Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: AMEC E&I, Inc.
Project: Thermo King Site - Louisville GA
Lab Order: 1201F45

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1201F45-001A	TB-1-0112	1/17/2012 8:30:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-002A	SEEP-B-0112	1/17/2012 11:10:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-003A	SEEP-C-0112	1/17/2012 8:55:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-003A	SEEP-C-0112	1/17/2012 8:55:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/26/2012
1201F45-004A	SEEP-2-0112	1/17/2012 10:55:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-005A	DUP-1-0112	1/17/2012 12:00:00PM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-005A	DUP-1-0112	1/17/2012 12:00:00PM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/26/2012
1201F45-006A	SEEP-L-0112	1/17/2012 10:40:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/26/2012
1201F45-007A	SEEP-I-0112	1/17/2012 10:25:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-008A	SEEP-G-0112	1/17/2012 10:05:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-009A	SEEP-H-0112	1/17/2012 9:50:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-010A	MB-2-0112	1/17/2012 9:23:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-010A	MB-2-0112	1/17/2012 9:23:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/26/2012
1201F45-011A	MB-5-0112	1/17/2012 12:05:00PM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-012A	MB-15-0112	1/17/2012 11:50:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-013A	MB-3-0112	1/17/2012 11:40:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-014A	MB-16-0112	1/17/2012 11:25:00AM	Surface Water	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-015A	MW-10-0112	1/17/2012 3:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/25/2012	01/26/2012
1201F45-016A	MW-22-0112	1/17/2012 4:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-017A	EB-1-0112	1/17/2012 4:25:00PM	Aqueous	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-018A	MW-20-0112	1/18/2012 10:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-018A	MW-20-0112	1/18/2012 10:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		01/25/2012	01/26/2012
1201F45-018A	MW-20-0112	1/18/2012 10:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		01/23/2012	01/23/2012
1201F45-019A	MW-25-0112	1/18/2012 12:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/25/2012	01/25/2012
1201F45-019A	MW-25-0112	1/18/2012 12:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/25/2012	01/26/2012
1201F45-019A	MW-25-0112	1/18/2012 12:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/23/2012	01/23/2012
1201F45-020A	DUP-2-0112	1/18/2012 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/26/2012	01/26/2012
1201F45-021A	MW-27-0112	1/18/2012 12:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/26/2012	01/26/2012
1201F45-021A	MW-27-0112	1/18/2012 12:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/23/2012	01/23/2012

Analytical Environmental Services, Inc

Date: 30-Jan-12

Client: AMEC E&I, Inc.
Project: Thermo King Site - Louisville GA
Lab Order: 1201F45

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1201F45-022A	MW-28-0112	1/18/2012 1:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/25/2012	01/26/2012
1201F45-022A	MW-28-0112	1/18/2012 1:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/23/2012	01/23/2012
1201F45-023A	MW-5-0112	1/18/2012 2:18:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/26/2012	01/26/2012
1201F45-023A	MW-5-0112	1/18/2012 2:18:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/23/2012	01/23/2012
1201F45-024A	MW-19-0112	1/18/2012 3:48:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/26/2012	01/26/2012
1201F45-024A	MW-19-0112	1/18/2012 3:48:00PM	Groundwater	Volatile Organic Compounds by GC/MS		01/23/2012	01/23/2012
1201F45-025A	MW-3-0112	1/19/2012 9:37:00AM	Groundwater	Volatile Organic Compounds by GC/MS		01/26/2012	01/26/2012
1201F45-025A	MW-3-0112	1/19/2012 9:37:00AM	Groundwater	Volatile Organic Compounds by GC/MS		01/23/2012	01/23/2012
1201F45-026A	MW-14-0112	1/19/2012 10:28:00AM	Groundwater	Volatile Organic Compounds by GC/MS		01/26/2012	01/26/2012
1201F45-026A	MW-14-0112	1/19/2012 10:28:00AM	Groundwater	Volatile Organic Compounds by GC/MS		01/23/2012	01/23/2012

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157056

Sample ID: **MB-157056** Client ID: Units: **ug/L** Prep Date: **01/25/2012** Run No: **213880**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157056** Analysis Date: **01/25/2012** Seq No: **4471610**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,1-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	
1,1-Dichloropropene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,3,5-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
2,2-Dichloropropane	BRL	2.0	0	0	0	0	0	0	0	0	
2-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Isopropyltoluene	BRL	2.0	0	0	0	0	0	0	0	0	
Benzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157056

Sample ID: **MB-157056** Client ID: Units: **ug/L** Prep Date: **01/25/2012** Run No: **213880**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157056** Analysis Date: **01/25/2012** Seq No: **4471610**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromodichloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	1.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	2.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	1.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Hexachlorobutadiene	BRL	1.0	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
n-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
n-Propylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Naphthalene	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
sec-Butylbenzene	BRL	2.0	0	0	0	0	0	0	0	0	
Styrene	BRL	1.0	0	0	0	0	0	0	0	0	
tert-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Toluene	BRL	1.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157056

Sample ID: **MB-157056** Client ID: Units: **ug/L** Prep Date: **01/25/2012** Run No: **213880**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157056** Analysis Date: **01/25/2012** Seq No: **4471610**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	1.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	47.58	0	50	0	95.2	67.4	123	0	0	0	
Surr: Dibromofluoromethane	53.15	0	50	0	106	75.5	128	0	0	0	
Surr: Toluene-d8	51.88	0	50	0	104	70	120	0	0	0	

Sample ID: **LCS-157056** Client ID: Units: **ug/L** Prep Date: **01/25/2012** Run No: **213880**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157056** Analysis Date: **01/25/2012** Seq No: **4471609**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	56.95	2.0	50	0	114	60	140	0	0	0	
Benzene	52.59	1.0	50	0	105	70	130	0	0	0	
Chlorobenzene	53.30	1.0	50	0	107	70	130	0	0	0	
Toluene	52.34	1.0	50	0	105	70	130	0	0	0	
Trichloroethene	52.93	1.0	50	0	106	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	51.36	0	50	0	103	67.4	123	0	0	0	
Surr: Dibromofluoromethane	51.80	0	50	0	104	75.5	128	0	0	0	
Surr: Toluene-d8	52.13	0	50	0	104	70	120	0	0	0	

Sample ID: **1201F45-022AMS** Client ID: **MW-28-0112** Units: **ug/L** Prep Date: **01/25/2012** Run No: **213880**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157056** Analysis Date: **01/25/2012** Seq No: **4471658**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	61.65	2.0	50	1.670	120	50.1	179	0	0	0	
Benzene	52.73	1.0	50	0	105	61.2	150	0	0	0	
Chlorobenzene	51.32	1.0	50	0	103	72.1	140	0	0	0	
Toluene	51.74	1.0	50	0	103	58.7	154	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157056

Sample ID: **1201F45-022AMS** Client ID: **MW-28-0112** Units: **ug/L** Prep Date: **01/25/2012** Run No: **213880**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS** **SW8260B** BatchID: **157056** Analysis Date: **01/25/2012** Seq No: **4471658**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	57.39	1.0	50	9.230	96.3	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	50.73	0	50	0	101	67.4	123	0	0	0	
Surr: Dibromofluoromethane	53.72	0	50	0	107	75.5	128	0	0	0	
Surr: Toluene-d8	54.22	0	50	0	108	70	120	0	0	0	

Sample ID: **1201F45-022AMSD** Client ID: **MW-28-0112** Units: **ug/L** Prep Date: **01/25/2012** Run No: **213880**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS** **SW8260B** BatchID: **157056** Analysis Date: **01/25/2012** Seq No: **4471659**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	60.09	2.0	50	1.670	117	50.1	179	61.65	2.56	23.3	
Benzene	51.34	1.0	50	0	103	61.2	150	52.73	2.67	19	
Chlorobenzene	50.03	1.0	50	0	100	72.1	140	51.32	2.55	21.5	
Toluene	50.71	1.0	50	0	101	58.7	154	51.74	2.01	20	
Trichloroethene	56.10	1.0	50	9.230	93.7	68.3	149	57.39	2.27	17.7	
Surr: 4-Bromofluorobenzene	51.41	0	50	0	103	67.4	123	50.73	0	0	
Surr: Dibromofluoromethane	53.83	0	50	0	108	75.5	128	53.72	0	0	
Surr: Toluene-d8	53.68	0	50	0	107	70	120	54.22	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157060

Sample ID: **MB-157060** Client ID: Units: **ug/L** Prep Date: **01/26/2012** Run No: **213886**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157060** Analysis Date: **01/26/2012** Seq No: **4471782**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,1-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	
1,1-Dichloropropene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,3,5-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
2,2-Dichloropropane	BRL	2.0	0	0	0	0	0	0	0	0	
2-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Isopropyltoluene	BRL	2.0	0	0	0	0	0	0	0	0	
Benzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157060

Sample ID: **MB-157060** Client ID: Units: **ug/L** Prep Date: **01/26/2012** Run No: **213886**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157060** Analysis Date: **01/26/2012** Seq No: **4471782**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromodichloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	1.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	2.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	1.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Hexachlorobutadiene	BRL	1.0	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
n-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
n-Propylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Naphthalene	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
sec-Butylbenzene	BRL	2.0	0	0	0	0	0	0	0	0	
Styrene	BRL	1.0	0	0	0	0	0	0	0	0	
tert-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Toluene	BRL	1.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157060

Sample ID: **MB-157060** Client ID: Units: **ug/L** Prep Date: **01/26/2012** Run No: **213886**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157060** Analysis Date: **01/26/2012** Seq No: **4471782**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	1.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	48.17	0	50	0	96.3	67.4	123	0	0	0	
Surr: Dibromofluoromethane	52.89	0	50	0	106	75.5	128	0	0	0	
Surr: Toluene-d8	51.73	0	50	0	103	70	120	0	0	0	

Sample ID: **LCS-157060** Client ID: Units: **ug/L** Prep Date: **01/26/2012** Run No: **213886**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157060** Analysis Date: **01/26/2012** Seq No: **4471781**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	62.64	2.0	50	0	125	60	140	0	0	0	
Benzene	54.11	1.0	50	0	108	70	130	0	0	0	
Chlorobenzene	52.81	1.0	50	0	106	70	130	0	0	0	
Toluene	54.17	1.0	50	0	108	70	130	0	0	0	
Trichloroethene	54.74	1.0	50	0	109	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	51.05	0	50	0	102	67.4	123	0	0	0	
Surr: Dibromofluoromethane	53.99	0	50	0	108	75.5	128	0	0	0	
Surr: Toluene-d8	53.59	0	50	0	107	70	120	0	0	0	

Sample ID: **1201F45-026AMS** Client ID: **MW-14-0112** Units: **ug/L** Prep Date: **01/26/2012** Run No: **213886**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **157060** Analysis Date: **01/26/2012** Seq No: **4471793**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	161.1	2.0	50	111.8	98.5	50.1	179	0	0	0	
Benzene	54.23	1.0	50	0	108	61.2	150	0	0	0	
Chlorobenzene	52.70	1.0	50	0	105	72.1	140	0	0	0	
Toluene	52.85	1.0	50	0	106	58.7	154	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157060

Sample ID: **1201F45-026AMS** Client ID: **MW-14-0112** Units: **ug/L** Prep Date: **01/26/2012** Run No: **213886**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS** **SW8260B** BatchID: **157060** Analysis Date: **01/26/2012** Seq No: **4471793**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	5794	1.0	50	5876	-164	68.3	149	0	0	0	SE
Surr: 4-Bromofluorobenzene	51.16	0	50	0	102	67.4	123	0	0	0	
Surr: Dibromofluoromethane	52.87	0	50	0	106	75.5	128	0	0	0	
Surr: Toluene-d8	53.34	0	50	0	107	70	120	0	0	0	

Sample ID: **1201F45-026AMSD** Client ID: **MW-14-0112** Units: **ug/L** Prep Date: **01/26/2012** Run No: **213886**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS** **SW8260B** BatchID: **157060** Analysis Date: **01/26/2012** Seq No: **4471794**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	160.0	2.0	50	111.8	96.5	50.1	179	161.1	0.642	23.3	
Benzene	53.96	1.0	50	0	108	61.2	150	54.23	0.499	19	
Chlorobenzene	52.24	1.0	50	0	104	72.1	140	52.70	0.877	21.5	
Toluene	52.38	1.0	50	0	105	58.7	154	52.85	0.893	20	
Trichloroethene	5697	1.0	50	5876	-358	68.3	149	5794	1.69	17.7	SE
Surr: 4-Bromofluorobenzene	49.85	0	50	0	99.7	67.4	123	51.16	0	0	
Surr: Dibromofluoromethane	52.18	0	50	0	104	75.5	128	52.87	0	0	
Surr: Toluene-d8	52.12	0	50	0	104	70	120	53.34	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157103

Sample ID: **MB-157103** Client ID: Units: **ug/L** Prep Date: **01/23/2012** Run No: **213961**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **157103** Analysis Date: **01/23/2012** Seq No: **4473461**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	48.69	0	50	0	97.4	70	130	0	0	0	
Surr: Dibromofluoromethane	49.55	0	50	0	99.1	70	130	0	0	0	
Surr: Toluene-d8	49.58	0	50	0	99.2	70	130	0	0	0	

Sample ID: **LCS-157103** Client ID: Units: **ug/L** Prep Date: **01/23/2012** Run No: **213961**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **157103** Analysis Date: **01/23/2012** Seq No: **4473459**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	11.14	5.0	10	0	111	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	48.95	0	50	0	97.9	70	130	0	0	0	
Surr: Dibromofluoromethane	49.50	0	50	0	99	70	130	0	0	0	
Surr: Toluene-d8	49.45	0	50	0	98.9	70	130	0	0	0	

Sample ID: **1201F45-018AMS** Client ID: **MW-20-0112** Units: **ug/L** Prep Date: **01/23/2012** Run No: **213961**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **157103** Analysis Date: **01/23/2012** Seq No: **4473476**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.75	5.0	10	0	108	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	48.64	0	50	0	97.3	70	130	0	0	0	
Surr: Dibromofluoromethane	50.24	0	50	0	100	70	130	0	0	0	
Surr: Toluene-d8	49.84	0	50	0	99.7	70	130	0	0	0	

Sample ID: **1201F45-018AMSD** Client ID: **MW-20-0112** Units: **ug/L** Prep Date: **01/23/2012** Run No: **213961**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **157103** Analysis Date: **01/23/2012** Seq No: **4473478**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	11.28	5.0	10	0	113	70	130	10.75	4.81	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Site - Louisville GA
Workorder: 1201F45

ANALYTICAL QC SUMMARY REPORT

BatchID: 157103

Sample ID: **1201F45-018AMSD** Client ID: **MW-20-0112** Units: **ug/L** Prep Date: **01/23/2012** Run No: **213961**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **157103** Analysis Date: **01/23/2012** Seq No: **4473478**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	48.76	0	50	0	97.5	70	130	48.64	0	0	
Surr: Dibromofluoromethane	50.34	0	50	0	101	70	130	50.24	0	0	
Surr: Toluene-d8	49.92	0	50	0	99.8	70	130	49.84	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

Analytical Environmental Services, Inc.,
3785 Presidential Parkway
Atlanta, GA 30340

July 3, 2011

Stipulation of Approval for Commercial Laboratory

According to Georgia State Law (O.C.G.A. 12-2-9) Commercial Rules for Commercial Laboratory Accreditation, any person submitting data to EPD prepared by a commercial laboratory shall stipulate that the laboratory is approved (Chapter 391-3-26-.05). The following information is provided as requested.

Laboratory	Analytical Environmental Services, Inc. (AES) 3785 Presidential Parkway, NE Atlanta, GA 30340 (770) 457-8177
Accredited By:	State of Florida, Department of Health, Bureau of Laboratories; Accrediting NELAP Authority
Accreditation ID:	E87582
Scope:	Clean Water Act – Extractable Organics, General Chemistry, Metals, Microbiology, Pesticides-Herbicides, PCBs, Volatile Oraganics RCRA/CERCLA – Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides, PCBs, Volatile Organics
Effective:	July 1, 2011
Expires:	June 30, 2012

Any question regarding this stipulation of approval may be directed to AES at 770 457-8177. Thank you for your business and please do not hesitate to contact us if we can be of further assistance.

Sincerely,
Allison Cantrell
Director of Client Services
Analytical Environmental Services, Inc.

FLORIDA DEPARTMENT OF HEALTH

State of Florida
Department of Health, Bureau of Laboratories

This is to certify that

E87582

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3785 PRESIDENTIAL PARKWAY
ATLANTA, GA 30340

has complied with Florida Administrative Code 64E-1,
for the examination of Environmental samples in the following categories

DRINKING WATER - MICROBIOLOGY, NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: August 30, 2011 Expiration Date: June 30, 2012

Max Salfinger, M.D.
Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/04
NON-TRANSFERABLE E87582-18-08/30/2011
Supersedes all previously issued certificates

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

July 22, 2012

Rhonda Quinn
AMEC E&I, Inc.
3200 Town Point Dr.
Kennesaw GA 30144

TEL: (770) 421-3400
FAX: (770) 421-3486

RE: Thermo King Louisville

Dear Rhonda Quinn: Order No: 1207746

Analytical Environmental Services, Inc. received 22 samples on July 12, 2012 1:05 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Kathryn E. Waters

Kathryn Waters
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1207746

Date: 7-10-12 Page 1 of 2

COMPANY: AMEC E&I

ADDRESS: 3200 Town Point Dr. Ste 100 Kennesaw, GA 30144

PHONE: 770-421-3400

FAX: 770-421-3486

SAMPLED BY: J. Moore / E. Guillen

SIGNATURE: J. Moore

ANALYSIS REQUESTED

VOC List + 1,4 Dioxane

PRESERVATION (See codes)

H+I

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	H+I	REMARKS	No # of Containers
1	TB-1-0712	7-10-12	0815	X		W	X		2
2	Seep-C-0712	7-10-12	0840	X		SW	X		2
3	Dup-1-0712	7-10-12	1200	X		SW	X		2
4	Mason Branch2-0712	7-10-12	9:15	X		SW	X		2
5	Seep-H-0712		9:25	X		SW	X		2
6	Seep-I-0712		9:43	X		SW	X		2
7	Seep-G-0712		9:46	X		SW	X		2
8	Seep-2-0712		9:55	X		SW	X		2
9	MB-3-0712		10:45	X		SW	X		2
10	MB-15-0712		10:55	X		SW	X		2
11	MB-5-0712		11:05	X		SW	X		2
12	MW-22-0712		2:30	X		GW	X		2
13	MW-10-0712		4:25	X		GW	X		2
14	EB-1-0712		4:45	X		W	X		2

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	7-12-12/1305	1: PH	7/12/12
2:		2:	13:05
3:		3:	

PROJECT INFORMATION

PROJECT NAME: TK Louisville

PROJECT #: 6122090322.201.01

SITE ADDRESS: Louisville, GA

SEND REPORT TO: Rhonda Quinn

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers

Turnaround Time Request

- ⊗ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush **(auth req.)**
- ○ Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER_____

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1207746

Date: 7-11-12 Page 2 of 2

COMPANY: AMEC E&I

ADDRESS: 3200 Town Point Dr. Ste 100 Kennesaw, GA 30144

PHONE: 770-421-3400 FAX: 770-421-3486

SAMPLED BY: J. Moore / E. Gulley SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs + 1,4 Dioxane	SIM 1,4 Dioxane + SVOCs	REMARKS	No # of Containers
1	MW-28-0712	7-11-12	8:42	X		GW	X	X		4
2	MW-20-0712	7-11-12	11:40	X		GW	X	X		4
3	Dup-2-0712	7-11-12	12:00	X		GW	X			2
4	MW-25-0712		2:40	X		GW	X	X		4
5	MW-3-0712		2:10	X		GW	X	X		4
6	MW-19-0712		12:10	X		GW	X	X		4
7	MW-14-0712		10:30	X		GW	X	X		4
8	MW-5-0712		1625	X		GW	X	X		4
9										
10										
11										
12										
13										
14										

PRESERVATION (See codes)

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY / DATE/TIME
1: 7-12-12 1305
2:
3:

RECEIVED BY / DATE/TIME
1: 7/12/12
2: 13:05
3:

PROJECT INFORMATION
PROJECT NAME: TK Louisville
PROJECT #: 6122090322.201.01
SITE ADDRESS: Louisville, GA
SEND REPORT TO: Rhonda Quinn
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers

Turnaround Time Request
- Ø Standard 5 Business Days
- O 2 Business Day Rush
- O Next Business Day Rush
- O Same Day Rush (auth req.)
- O Other

STATE PROGRAM (if any):
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 20-Jul-12

Client: AMEC E&I, Inc.
Project: Thermo King Louisville
Lab ID: 1207746

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

1,1-Dichloroethene & Trichloroethene values for the QC samples 1207964-003AMS/MSD are "E" qualified indicating estimated values over linear calibration range due to the level of target analyte present in the unspiked sample.

Analytical Environmental Services, Inc

Date: 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TB-1-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 8:15:00 AM
Lab ID:	1207746-001	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**			**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/17/2012 19:27	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/17/2012 19:27	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Benzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:27	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:27	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:27	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:27	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TB-1-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 8:15:00 AM
Lab ID:	1207746-001	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/17/2012 19:27	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Styrene	BRL	5.0		ug/L	163991	1	07/17/2012 19:27	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Toluene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:27	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/17/2012 19:27	JT
Surr: 4-Bromofluorobenzene	89.2	67.4-123		%REC	163991	1	07/17/2012 19:27	JT
Surr: Dibromofluoromethane	102	75.5-128		%REC	163991	1	07/17/2012 19:27	JT
Surr: Toluene-d8	92.4	70-120		%REC	163991	1	07/17/2012 19:27	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-C-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 8:40:00 AM
Lab ID:	1207746-002	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,1-Dichloroethane	7.3	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,1-Dichloroethene	1.8	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 05:14	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 05:14	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 05:14	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 05:14	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 05:14	JT
cis-1,2-Dichloroethene	32	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 05:14	JT
Ethylbenzene	25	1.0		ug/L	163991	1	07/18/2012 05:14	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-C-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 8:40:00 AM
Lab ID:	1207746-002	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 05:14	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 05:14	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Toluene	180	1.0		ug/L	163991	1	07/18/2012 05:14	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 05:14	JT
Vinyl chloride	14	1.0		ug/L	163991	1	07/18/2012 05:14	JT
Surr: 4-Bromofluorobenzene	84	67.4-123		%REC	163991	1	07/18/2012 05:14	JT
Surr: Dibromofluoromethane	103	75.5-128		%REC	163991	1	07/18/2012 05:14	JT
Surr: Toluene-d8	91.6	70-120		%REC	163991	1	07/18/2012 05:14	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-1-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 12:00:00 PM
Lab ID:	1207746-003	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,1-Dichloroethane	7.3	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,1-Dichloroethene	2.2	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/17/2012 19:56	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/17/2012 19:56	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Benzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:56	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:56	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:56	JT
cis-1,2-Dichloroethene	30	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:56	JT
Ethylbenzene	27	1.0		ug/L	163991	1	07/17/2012 19:56	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-1-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 12:00:00 PM
Lab ID:	1207746-003	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/17/2012 19:56	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Styrene	BRL	5.0		ug/L	163991	1	07/17/2012 19:56	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Toluene	190	1.0		ug/L	163991	1	07/17/2012 19:56	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/17/2012 19:56	JT
Vinyl chloride	15	1.0		ug/L	163991	1	07/17/2012 19:56	JT
Surr: 4-Bromofluorobenzene	87.9	67.4-123		%REC	163991	1	07/17/2012 19:56	JT
Surr: Dibromofluoromethane	102	75.5-128		%REC	163991	1	07/17/2012 19:56	JT
Surr: Toluene-d8	92.1	70-120		%REC	163991	1	07/17/2012 19:56	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MASON BRANCH 2-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:15:00 AM
Lab ID:	1207746-004	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,1-Dichloroethane	2.5	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,1-Dichloroethene	7.3	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/17/2012 23:52	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/17/2012 23:52	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
4-Isopropyltoluene	5.0	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Benzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/17/2012 23:52	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/17/2012 23:52	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/17/2012 23:52	JT
cis-1,2-Dichloroethene	95	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/17/2012 23:52	JT
Ethylbenzene	4.6	1.0		ug/L	163991	1	07/17/2012 23:52	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MASON BRANCH 2-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:15:00 AM
Lab ID:	1207746-004	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/17/2012 23:52	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Styrene	BRL	5.0		ug/L	163991	1	07/17/2012 23:52	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Toluene	180	1.0		ug/L	163991	1	07/17/2012 23:52	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Trichloroethene	16	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/17/2012 23:52	JT
Vinyl chloride	20	1.0		ug/L	163991	1	07/17/2012 23:52	JT
Surr: 4-Bromofluorobenzene	89.9	67.4-123		%REC	163991	1	07/17/2012 23:52	JT
Surr: Dibromofluoromethane	105	75.5-128		%REC	163991	1	07/17/2012 23:52	JT
Surr: Toluene-d8	90.3	70-120		%REC	163991	1	07/17/2012 23:52	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-H-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:25:00 AM
Lab ID:	1207746-005	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,1-Dichloroethane	2.0	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,1-Dichloroethene	6.7	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 00:21	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 00:21	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:21	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:21	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:21	JT
cis-1,2-Dichloroethene	110	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:21	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-H-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:25:00 AM
Lab ID:	1207746-005	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 00:21	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 00:21	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Toluene	170	10		ug/L	163991	10	07/18/2012 12:44	JT
trans-1,2-Dichloroethene	3.8	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:21	JT
Vinyl chloride	31	1.0		ug/L	163991	1	07/18/2012 00:21	JT
Surr: 4-Bromofluorobenzene	84.4	67.4-123		%REC	163991	10	07/18/2012 12:44	JT
Surr: 4-Bromofluorobenzene	86.4	67.4-123		%REC	163991	1	07/18/2012 00:21	JT
Surr: Dibromofluoromethane	99.5	75.5-128		%REC	163991	1	07/18/2012 00:21	JT
Surr: Dibromofluoromethane	99.4	75.5-128		%REC	163991	10	07/18/2012 12:44	JT
Surr: Toluene-d8	90.6	70-120		%REC	163991	1	07/18/2012 00:21	JT
Surr: Toluene-d8	91.4	70-120		%REC	163991	10	07/18/2012 12:44	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-I-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:43:00 AM
Lab ID:	1207746-006	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,1,1-Trichloroethane	9.5	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,1-Dichloroethene	60	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 00:51	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 00:51	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:51	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:51	JT
Chloroform	2.2	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:51	JT
cis-1,2-Dichloroethene	68	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:51	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-I-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:43:00 AM
Lab ID:	1207746-006	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 00:51	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 00:51	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Toluene	17	1.0		ug/L	163991	1	07/18/2012 00:51	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Trichloroethene	380	10		ug/L	163991	10	07/18/2012 13:14	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 00:51	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/18/2012 00:51	JT
Surr: 4-Bromofluorobenzene	84.6	67.4-123		%REC	163991	1	07/18/2012 00:51	JT
Surr: 4-Bromofluorobenzene	84.5	67.4-123		%REC	163991	10	07/18/2012 13:14	JT
Surr: Dibromofluoromethane	101	75.5-128		%REC	163991	10	07/18/2012 13:14	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	163991	1	07/18/2012 00:51	JT
Surr: Toluene-d8	92.2	70-120		%REC	163991	10	07/18/2012 13:14	JT
Surr: Toluene-d8	90	70-120		%REC	163991	1	07/18/2012 00:51	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-G-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:46:00 AM
Lab ID:	1207746-007	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,1-Dichloroethene	5.2	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 01:20	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 01:20	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:20	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:20	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:20	JT
cis-1,2-Dichloroethene	49	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:20	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-G-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:46:00 AM
Lab ID:	1207746-007	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 01:20	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 01:20	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Toluene	6.4	1.0		ug/L	163991	1	07/18/2012 01:20	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:20	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/18/2012 01:20	JT
Surr: 4-Bromofluorobenzene	90.7	67.4-123		%REC	163991	1	07/18/2012 01:20	JT
Surr: Dibromofluoromethane	103	75.5-128		%REC	163991	1	07/18/2012 01:20	JT
Surr: Toluene-d8	89.7	70-120		%REC	163991	1	07/18/2012 01:20	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-2-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:55:00 AM
Lab ID:	1207746-008	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 01:49	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 01:49	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:49	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:49	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:49	JT
cis-1,2-Dichloroethene	4.0	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:49	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-2-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 9:55:00 AM
Lab ID:	1207746-008	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 01:49	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 01:49	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Toluene	33	1.0		ug/L	163991	1	07/18/2012 01:49	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 01:49	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/18/2012 01:49	JT
Surr: 4-Bromofluorobenzene	86.4	67.4-123		%REC	163991	1	07/18/2012 01:49	JT
Surr: Dibromofluoromethane	105	75.5-128		%REC	163991	1	07/18/2012 01:49	JT
Surr: Toluene-d8	92.7	70-120		%REC	163991	1	07/18/2012 01:49	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-3-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 10:45:00 AM
Lab ID:	1207746-009	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 02:18	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 02:18	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:18	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:18	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:18	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:18	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-3-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 10:45:00 AM
Lab ID:	1207746-009	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 02:18	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 02:18	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Toluene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:18	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/18/2012 02:18	JT
Surr: 4-Bromofluorobenzene	84.8	67.4-123		%REC	163991	1	07/18/2012 02:18	JT
Surr: Dibromofluoromethane	105	75.5-128		%REC	163991	1	07/18/2012 02:18	JT
Surr: Toluene-d8	89.2	70-120		%REC	163991	1	07/18/2012 02:18	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-15-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 10:55:00 AM
Lab ID:	1207746-010	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 02:47	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 02:47	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:47	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:47	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:47	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:47	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-15-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 10:55:00 AM
Lab ID:	1207746-010	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 02:47	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 02:47	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Toluene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 02:47	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/18/2012 02:47	JT
Surr: 4-Bromofluorobenzene	88.8	67.4-123		%REC	163991	1	07/18/2012 02:47	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	163991	1	07/18/2012 02:47	JT
Surr: Toluene-d8	91.1	70-120		%REC	163991	1	07/18/2012 02:47	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-5-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 11:05:00 AM
Lab ID:	1207746-011	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 03:17	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 03:17	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:17	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:17	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:17	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:17	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MB-5-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 11:05:00 AM
Lab ID:	1207746-011	**Matrix:**	Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 03:17	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 03:17	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Toluene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:17	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/18/2012 03:17	JT
Surr: 4-Bromofluorobenzene	89.3	67.4-123		%REC	163991	1	07/18/2012 03:17	JT
Surr: Dibromofluoromethane	101	75.5-128		%REC	163991	1	07/18/2012 03:17	JT
Surr: Toluene-d8	90.5	70-120		%REC	163991	1	07/18/2012 03:17	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-22-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 2:30:00 PM
Lab ID:	1207746-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 03:46	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 03:46	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:46	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:46	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:46	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:46	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-22-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 2:30:00 PM
Lab ID:	1207746-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 03:46	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 03:46	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Toluene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 03:46	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/18/2012 03:46	JT
Surr: 4-Bromofluorobenzene	87	67.4-123		%REC	163991	1	07/18/2012 03:46	JT
Surr: Dibromofluoromethane	109	75.5-128		%REC	163991	1	07/18/2012 03:46	JT
Surr: Toluene-d8	90.3	70-120		%REC	163991	1	07/18/2012 03:46	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-10-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 4:25:00 PM
Lab ID:	1207746-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 04:16	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 04:16	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:16	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:16	JT
Chloroform	1.5	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:16	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:16	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-10-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 4:25:00 PM
Lab ID:	1207746-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 04:16	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 04:16	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Toluene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Trichloroethene	2.6	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:16	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/18/2012 04:16	JT
Surr: 4-Bromofluorobenzene	85.7	67.4-123		%REC	163991	1	07/18/2012 04:16	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	163991	1	07/18/2012 04:16	JT
Surr: Toluene-d8	92.4	70-120		%REC	163991	1	07/18/2012 04:16	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	EB-1-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 4:45:00 PM
Lab ID:	1207746-014	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163991	1	07/18/2012 04:45	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
1,4-Dioxane	BRL	100		ug/L	163991	1	07/18/2012 04:45	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
2-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
4-Chlorotoluene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Benzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Bromobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Bromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Bromodichloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Bromoform	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Bromomethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:45	JT
Carbon tetrachloride	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Chlorobenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Chloroethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:45	JT
Chloroform	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Chloromethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:45	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Dibromochloromethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Dibromomethane	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:45	JT
Ethylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	EB-1-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/10/2012 4:45:00 PM
Lab ID:	1207746-014	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Isopropylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
m,p-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Methylene chloride	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
n-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
n-Propylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Naphthalene	BRL	5.0		ug/L	163991	1	07/18/2012 04:45	JT
o-Xylene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
sec-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Styrene	BRL	5.0		ug/L	163991	1	07/18/2012 04:45	JT
tert-Butylbenzene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Tetrachloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Toluene	2.1	1.0		ug/L	163991	1	07/18/2012 04:45	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Trichloroethene	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163991	1	07/18/2012 04:45	JT
Vinyl chloride	BRL	1.0		ug/L	163991	1	07/18/2012 04:45	JT
Surr: 4-Bromofluorobenzene	86.3	67.4-123		%REC	163991	1	07/18/2012 04:45	JT
Surr: Dibromofluoromethane	103	75.5-128		%REC	163991	1	07/18/2012 04:45	JT
Surr: Toluene-d8	89.5	70-120		%REC	163991	1	07/18/2012 04:45	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-28-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 8:42:00 AM
Lab ID:	1207746-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163999	1	07/18/2012 16:11	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
1,4-Dioxane	BRL	100		ug/L	163999	1	07/18/2012 16:11	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
2-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
4-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Benzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Bromobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Bromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Bromodichloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Bromoform	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Bromomethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:11	JT
Carbon tetrachloride	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Chlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Chloroethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:11	JT
Chloroform	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Chloromethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:11	JT
cis-1,2-Dichloroethene	12	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Dibromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Dibromomethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:11	JT
Ethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-28-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 8:42:00 AM
Lab ID:	1207746-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Isopropylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
m,p-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Methylene chloride	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
n-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
n-Propylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Naphthalene	BRL	5.0		ug/L	163999	1	07/18/2012 16:11	JT
o-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
sec-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Styrene	BRL	5.0		ug/L	163999	1	07/18/2012 16:11	JT
tert-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Tetrachloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Toluene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Trichloroethene	3.5	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:11	JT
Vinyl chloride	1.1	1.0		ug/L	163999	1	07/18/2012 16:11	JT
Surr: 4-Bromofluorobenzene	82.9	67.4-123		%REC	163999	1	07/18/2012 16:11	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	163999	1	07/18/2012 16:11	JT
Surr: Toluene-d8	91.5	70-120		%REC	163999	1	07/18/2012 16:11	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	164102	1	07/20/2012 01:24	JT
Surr: 4-Bromofluorobenzene	103	70-130		%REC	164102	1	07/20/2012 01:24	JT
Surr: Dibromofluoromethane	93.4	70-130		%REC	164102	1	07/20/2012 01:24	JT
Surr: Toluene-d8	98.8	70-130		%REC	164102	1	07/20/2012 01:24	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-20-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 11:40:00 AM
Lab ID:	1207746-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,1-Dichloroethene	3.6	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163999	1	07/18/2012 16:41	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
1,4-Dioxane	BRL	100		ug/L	163999	1	07/18/2012 16:41	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
2-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
4-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Benzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Bromobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Bromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Bromodichloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Bromoform	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Bromomethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:41	JT
Carbon tetrachloride	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Chlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Chloroethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:41	JT
Chloroform	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Chloromethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:41	JT
cis-1,2-Dichloroethene	270	10		ug/L	163999	10	07/19/2012 14:58	JT
Dibromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Dibromomethane	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:41	JT
Ethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-20-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 11:40:00 AM
Lab ID:	1207746-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Isopropylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
m,p-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Methylene chloride	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
n-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
n-Propylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Naphthalene	BRL	5.0		ug/L	163999	1	07/18/2012 16:41	JT
o-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
sec-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Styrene	BRL	5.0		ug/L	163999	1	07/18/2012 16:41	JT
tert-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Tetrachloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Toluene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Trichloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 16:41	JT
Vinyl chloride	1.8	1.0		ug/L	163999	1	07/18/2012 16:41	JT
Surr: 4-Bromofluorobenzene	82.9	67.4-123		%REC	163999	10	07/19/2012 14:58	JT
Surr: 4-Bromofluorobenzene	84.3	67.4-123		%REC	163999	1	07/18/2012 16:41	JT
Surr: Dibromofluoromethane	99	75.5-128		%REC	163999	1	07/18/2012 16:41	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	163999	10	07/19/2012 14:58	JT
Surr: Toluene-d8	90.4	70-120		%REC	163999	1	07/18/2012 16:41	JT
Surr: Toluene-d8	90.8	70-120		%REC	163999	10	07/19/2012 14:58	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	164102	1	07/20/2012 01:51	JT
Surr: 4-Bromofluorobenzene	104	70-130		%REC	164102	1	07/20/2012 01:51	JT
Surr: Dibromofluoromethane	92.9	70-130		%REC	164102	1	07/20/2012 01:51	JT
Surr: Toluene-d8	98.5	70-130		%REC	164102	1	07/20/2012 01:51	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-2-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 12:00:00 PM
Lab ID:	1207746-017	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,1-Dichloroethene	27	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163999	1	07/18/2012 17:10	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
1,4-Dioxane	BRL	100		ug/L	163999	1	07/18/2012 17:10	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
2-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
4-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Benzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Bromobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Bromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Bromodichloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Bromoform	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Bromomethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:10	JT
Carbon tetrachloride	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Chlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Chloroethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:10	JT
Chloroform	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Chloromethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:10	JT
cis-1,2-Dichloroethene	780	100		ug/L	163999	100	07/19/2012 13:58	JT
Dibromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Dibromomethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:10	JT
Ethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-2-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 12:00:00 PM
Lab ID:	1207746-017	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Isopropylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
m,p-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Methylene chloride	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
n-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
n-Propylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Naphthalene	BRL	5.0		ug/L	163999	1	07/18/2012 17:10	JT
o-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
sec-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Styrene	BRL	5.0		ug/L	163999	1	07/18/2012 17:10	JT
tert-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Tetrachloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Toluene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Trichloroethene	3700	100		ug/L	163999	100	07/19/2012 13:58	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:10	JT
Vinyl chloride	43	1.0		ug/L	163999	1	07/18/2012 17:10	JT
Surr: 4-Bromofluorobenzene	82	67.4-123		%REC	163999	100	07/19/2012 13:58	JT
Surr: 4-Bromofluorobenzene	82.3	67.4-123		%REC	163999	1	07/18/2012 17:10	JT
Surr: Dibromofluoromethane	100	75.5-128		%REC	163999	1	07/18/2012 17:10	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	163999	100	07/19/2012 13:58	JT
Surr: Toluene-d8	91.4	70-120		%REC	163999	100	07/19/2012 13:58	JT
Surr: Toluene-d8	92.3	70-120		%REC	163999	1	07/18/2012 17:10	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-25-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 2:40:00 PM
Lab ID:	1207746-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,1-Dichloroethene	28	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163999	1	07/18/2012 17:40	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
1,4-Dioxane	BRL	100		ug/L	163999	1	07/18/2012 17:40	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
2-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
4-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Benzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Bromobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Bromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Bromodichloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Bromoform	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Bromomethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:40	JT
Carbon tetrachloride	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Chlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Chloroethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:40	JT
Chloroform	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Chloromethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:40	JT
cis-1,2-Dichloroethene	860	100		ug/L	163999	100	07/19/2012 12:59	JT
Dibromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Dibromomethane	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:40	JT
Ethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-25-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 2:40:00 PM
Lab ID:	1207746-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Hexachlorobutadiene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Isopropylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
m,p-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Methylene chloride	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
n-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
n-Propylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Naphthalene	BRL	5.0		ug/L	163999	1	07/18/2012 17:40	JT
o-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
sec-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Styrene	BRL	5.0		ug/L	163999	1	07/18/2012 17:40	JT
tert-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Tetrachloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Toluene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Trichloroethene	3900	100		ug/L	163999	100	07/19/2012 12:59	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 17:40	JT
Vinyl chloride	44	1.0		ug/L	163999	1	07/18/2012 17:40	JT
Surr: 4-Bromofluorobenzene	83.3	67.4-123		%REC	163999	100	07/19/2012 12:59	JT
Surr: 4-Bromofluorobenzene	84.2	67.4-123		%REC	163999	1	07/18/2012 17:40	JT
Surr: Dibromofluoromethane	101	75.5-128		%REC	163999	100	07/19/2012 12:59	JT
Surr: Dibromofluoromethane	103	75.5-128		%REC	163999	1	07/18/2012 17:40	JT
Surr: Toluene-d8	90.4	70-120		%REC	163999	1	07/18/2012 17:40	JT
Surr: Toluene-d8	90.1	70-120		%REC	163999	100	07/19/2012 12:59	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM (SW5030B)								
1,4-Dioxane	BRL	5.0		ug/L	164102	1	07/20/2012 02:18	JT
Surr: 4-Bromofluorobenzene	104	70-130		%REC	164102	1	07/20/2012 02:18	JT
Surr: Dibromofluoromethane	92.5	70-130		%REC	164102	1	07/20/2012 02:18	JT
Surr: Toluene-d8	99.3	70-130		%REC	164102	1	07/20/2012 02:18	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-3-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 2:10:00 PM
Lab ID:	1207746-019	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163999	1	07/19/2012 11:01	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
1,4-Dioxane	BRL	100		ug/L	163999	1	07/19/2012 11:01	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
2-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
4-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Benzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Bromobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Bromochloromethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Bromodichloromethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Bromoform	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Bromomethane	BRL	5.0		ug/L	163999	1	07/19/2012 11:01	JT
Carbon tetrachloride	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Chlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Chloroethane	BRL	5.0		ug/L	163999	1	07/19/2012 11:01	JT
Chloroform	3.0	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Chloromethane	BRL	5.0		ug/L	163999	1	07/19/2012 11:01	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Dibromochloromethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Dibromomethane	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163999	1	07/19/2012 11:01	JT
Ethylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-3-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 2:10:00 PM
Lab ID:	1207746-019	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Isopropylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
m,p-Xylene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Methylene chloride	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
n-Butylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
n-Propylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Naphthalene	BRL	5.0		ug/L	163999	1	07/19/2012 11:01	JT
o-Xylene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
sec-Butylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Styrene	BRL	5.0		ug/L	163999	1	07/19/2012 11:01	JT
tert-Butylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Tetrachloroethene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Toluene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Trichloroethene	3.1	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163999	1	07/19/2012 11:01	JT
Vinyl chloride	BRL	1.0		ug/L	163999	1	07/19/2012 11:01	JT
Surr: 4-Bromofluorobenzene	83.6	67.4-123		%REC	163999	1	07/19/2012 11:01	JT
Surr: Dibromofluoromethane	102	75.5-128		%REC	163999	1	07/19/2012 11:01	JT
Surr: Toluene-d8	88.3	70-120		%REC	163999	1	07/19/2012 11:01	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	164102	1	07/20/2012 02:45	JT
Surr: 4-Bromofluorobenzene	105	70-130		%REC	164102	1	07/20/2012 02:45	JT
Surr: Dibromofluoromethane	91.3	70-130		%REC	164102	1	07/20/2012 02:45	JT
Surr: Toluene-d8	98.6	70-130		%REC	164102	1	07/20/2012 02:45	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-19-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 12:10:00 PM
Lab ID:	1207746-020	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	12	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,1,1-Trichloroethane	6.4	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,1-Dichloroethene	37	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163999	1	07/18/2012 18:38	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
1,4-Dioxane	BRL	100		ug/L	163999	1	07/18/2012 18:38	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
2-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
4-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Benzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Bromobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Bromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Bromodichloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Bromoform	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Bromomethane	BRL	5.0		ug/L	163999	1	07/18/2012 18:38	JT
Carbon tetrachloride	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Chlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Chloroethane	BRL	5.0		ug/L	163999	1	07/18/2012 18:38	JT
Chloroform	2.2	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Chloromethane	BRL	5.0		ug/L	163999	1	07/18/2012 18:38	JT
cis-1,2-Dichloroethene	13	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Dibromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Dibromomethane	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 18:38	JT
Ethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-19-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 12:10:00 PM
Lab ID:	1207746-020	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Isopropylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
m,p-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Methylene chloride	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
n-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
n-Propylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Naphthalene	BRL	5.0		ug/L	163999	1	07/18/2012 18:38	JT
o-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
sec-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Styrene	BRL	5.0		ug/L	163999	1	07/18/2012 18:38	JT
tert-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Tetrachloroethene	2.3	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Toluene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Trichloroethene	5100	100		ug/L	163999	100	07/19/2012 14:28	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 18:38	JT
Vinyl chloride	BRL	1.0		ug/L	163999	1	07/18/2012 18:38	JT
Surr: 4-Bromofluorobenzene	80.9	67.4-123		%REC	163999	100	07/19/2012 14:28	JT
Surr: 4-Bromofluorobenzene	84.4	67.4-123		%REC	163999	1	07/18/2012 18:38	JT
Surr: Dibromofluoromethane	101	75.5-128		%REC	163999	1	07/18/2012 18:38	JT
Surr: Dibromofluoromethane	103	75.5-128		%REC	163999	100	07/19/2012 14:28	JT
Surr: Toluene-d8	91.7	70-120		%REC	163999	100	07/19/2012 14:28	JT
Surr: Toluene-d8	94.3	70-120		%REC	163999	1	07/18/2012 18:38	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	164102	1	07/20/2012 03:12	JT
Surr: 4-Bromofluorobenzene	106	70-130		%REC	164102	1	07/20/2012 03:12	JT
Surr: Dibromofluoromethane	92	70-130		%REC	164102	1	07/20/2012 03:12	JT
Surr: Toluene-d8	99.8	70-130		%REC	164102	1	07/20/2012 03:12	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-14-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 10:30:00 AM
Lab ID:	1207746-021	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,1-Dichloroethane	3.3	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,1-Dichloroethene	90	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163999	1	07/18/2012 19:08	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
1,4-Dioxane	BRL	100		ug/L	163999	1	07/18/2012 19:08	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
2-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
4-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Benzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Bromobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Bromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Bromodichloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Bromoform	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Bromomethane	BRL	5.0		ug/L	163999	1	07/18/2012 19:08	JT
Carbon tetrachloride	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Chlorobenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Chloroethane	BRL	5.0		ug/L	163999	1	07/18/2012 19:08	JT
Chloroform	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Chloromethane	BRL	5.0		ug/L	163999	1	07/18/2012 19:08	JT
cis-1,2-Dichloroethene	340	10		ug/L	163999	10	07/19/2012 15:57	JT
Dibromochloromethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Dibromomethane	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 19:08	JT
Ethylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-14-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 10:30:00 AM
Lab ID:	1207746-021	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Isopropylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
m,p-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Methylene chloride	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
n-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
n-Propylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Naphthalene	BRL	5.0		ug/L	163999	1	07/18/2012 19:08	JT
o-Xylene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
sec-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Styrene	BRL	5.0		ug/L	163999	1	07/18/2012 19:08	JT
tert-Butylbenzene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Tetrachloroethene	2.4	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Toluene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Trichloroethene	3700	100		ug/L	163999	100	07/19/2012 13:28	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163999	1	07/18/2012 19:08	JT
Vinyl chloride	2.3	1.0		ug/L	163999	1	07/18/2012 19:08	JT
Surr: 4-Bromofluorobenzene	80.7	67.4-123		%REC	163999	10	07/19/2012 15:57	JT
Surr: 4-Bromofluorobenzene	81.8	67.4-123		%REC	163999	100	07/19/2012 13:28	JT
Surr: 4-Bromofluorobenzene	88.8	67.4-123		%REC	163999	1	07/18/2012 19:08	JT
Surr: Dibromofluoromethane	101	75.5-128		%REC	163999	1	07/18/2012 19:08	JT
Surr: Dibromofluoromethane	102	75.5-128		%REC	163999	10	07/19/2012 15:57	JT
Surr: Dibromofluoromethane	102	75.5-128		%REC	163999	100	07/19/2012 13:28	JT
Surr: Toluene-d8	92.5	70-120		%REC	163999	1	07/18/2012 19:08	JT
Surr: Toluene-d8	92.1	70-120		%REC	163999	10	07/19/2012 15:57	JT
Surr: Toluene-d8	92.8	70-120		%REC	163999	100	07/19/2012 13:28	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	164102	1	07/20/2012 03:40	JT
Surr: 4-Bromofluorobenzene	104	70-130		%REC	164102	1	07/20/2012 03:40	JT
Surr: Dibromofluoromethane	91.8	70-130		%REC	164102	1	07/20/2012 03:40	JT
Surr: Toluene-d8	98	70-130		%REC	164102	1	07/20/2012 03:40	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-5-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 4:25:00 PM
Lab ID:	1207746-022	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,1-Dichloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,1-Dichloroethene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,1-Dichloropropene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	163999	1	07/19/2012 16:26	JT
1,2-Dibromoethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,2-Dichloroethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,3-Dichloropropane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
1,4-Dioxane	BRL	100		ug/L	163999	1	07/19/2012 16:26	JT
2,2-Dichloropropane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
2-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
4-Chlorotoluene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
4-Isopropyltoluene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Benzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Bromobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Bromochloromethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Bromodichloromethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Bromoform	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Bromomethane	BRL	5.0		ug/L	163999	1	07/19/2012 16:26	JT
Carbon tetrachloride	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Chlorobenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Chloroethane	BRL	5.0		ug/L	163999	1	07/19/2012 16:26	JT
Chloroform	2.1	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Chloromethane	BRL	5.0		ug/L	163999	1	07/19/2012 16:26	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Dibromochloromethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Dibromomethane	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	163999	1	07/19/2012 16:26	JT
Ethylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Jul-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-5-0712
Project Name:	Thermo King Louisville	**Collection Date:**	7/11/2012 4:25:00 PM
Lab ID:	1207746-022	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Isopropylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
m,p-Xylene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Methylene chloride	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
n-Butylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
n-Propylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Naphthalene	BRL	5.0		ug/L	163999	1	07/19/2012 16:26	JT
o-Xylene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
sec-Butylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Styrene	BRL	5.0		ug/L	163999	1	07/19/2012 16:26	JT
tert-Butylbenzene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Tetrachloroethene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Toluene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Trichloroethene	220	10		ug/L	163999	10	07/19/2012 15:27	JT
Trichlorofluoromethane	BRL	5.0		ug/L	163999	1	07/19/2012 16:26	JT
Vinyl chloride	BRL	1.0		ug/L	163999	1	07/19/2012 16:26	JT
Surr: 4-Bromofluorobenzene	79.2	67.4-123		%REC	163999	1	07/19/2012 16:26	JT
Surr: 4-Bromofluorobenzene	83.4	67.4-123		%REC	163999	10	07/19/2012 15:27	JT
Surr: Dibromofluoromethane	102	75.5-128		%REC	163999	1	07/19/2012 16:26	JT
Surr: Dibromofluoromethane	106	75.5-128		%REC	163999	10	07/19/2012 15:27	JT
Surr: Toluene-d8	91.9	70-120		%REC	163999	10	07/19/2012 15:27	JT
Surr: Toluene-d8	96.1	70-120		%REC	163999	1	07/19/2012 16:26	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	164102	1	07/20/2012 04:07	JT
Surr: 4-Bromofluorobenzene	107	70-130		%REC	164102	1	07/20/2012 04:07	JT
Surr: Dibromofluoromethane	90.8	70-130		%REC	164102	1	07/20/2012 04:07	JT
Surr: Toluene-d8	98.8	70-130		%REC	164102	1	07/20/2012 04:07	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC Work Order Number 1207746

Checklist completed by _____ 7/12/12
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.1° Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: AMEC E&I, Inc.
Project: Thermo King Louisville
Lab Order: 1207746

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1207746-001A	TB-1-0712	7/10/2012 8:15:00AM	Aqueous	Volatile Organic Compounds by GC/MS		07/17/2012	07/17/2012
1207746-002A	SEEP-C-0712	7/10/2012 8:40:00AM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-003A	DUP-1-0712	7/10/2012 12:00:00PM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/17/2012
1207746-004A	MASON BRANCH 2-0712	7/10/2012 9:15:00AM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/17/2012
1207746-005A	SEEP-H-0712	7/10/2012 9:25:00AM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-006A	SEEP-I-0712	7/10/2012 9:43:00AM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-007A	SEEP-G-0712	7/10/2012 9:46:00AM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-008A	SEEP-2-0712	7/10/2012 9:55:00AM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-009A	MB-3-0712	7/10/2012 10:45:00AM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-010A	MB-15-0712	7/10/2012 10:55:00AM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-011A	MB-5-0712	7/10/2012 11:05:00AM	Surface Water	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-012A	MW-22-0712	7/10/2012 2:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-013A	MW-10-0712	7/10/2012 4:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-014A	EB-1-0712	7/10/2012 4:45:00PM	Aqueous	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-015A	MW-28-0712	7/11/2012 8:42:00AM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-015A	MW-28-0712	7/11/2012 8:42:00AM	Groundwater	Volatile Organic Compounds by GC/MS		07/19/2012	07/20/2012
1207746-016A	MW-20-0712	7/11/2012 11:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-016A	MW-20-0712	7/11/2012 11:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/19/2012
1207746-016A	MW-20-0712	7/11/2012 11:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		07/19/2012	07/20/2012
1207746-017A	DUP-2-0712	7/11/2012 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-017A	DUP-2-0712	7/11/2012 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/19/2012
1207746-018A	MW-25-0712	7/11/2012 2:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-018A	MW-25-0712	7/11/2012 2:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/19/2012
1207746-018A	MW-25-0712	7/11/2012 2:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/19/2012	07/20/2012
1207746-019A	MW-3-0712	7/11/2012 2:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/19/2012
1207746-019A	MW-3-0712	7/11/2012 2:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/19/2012	07/20/2012
1207746-020A	MW-19-0712	7/11/2012 12:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-020A	MW-19-0712	7/11/2012 12:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/19/2012
1207746-020A	MW-19-0712	7/11/2012 12:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/19/2012	07/20/2012

Client: AMEC E&I, Inc.
Project: Thermo King Louisville
Lab Order: 1207746

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1207746-021A	MW-14-0712	7/11/2012 10:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/18/2012
1207746-021A	MW-14-0712	7/11/2012 10:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/19/2012
1207746-021A	MW-14-0712	7/11/2012 10:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		07/19/2012	07/20/2012
1207746-022A	MW-5-0712	7/11/2012 4:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/17/2012	07/19/2012
1207746-022A	MW-5-0712	7/11/2012 4:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		07/19/2012	07/20/2012

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 163991

Sample ID: **MB-163991** Client ID: Units: **ug/L** Prep Date: **07/17/2012** Run No: **225198**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163991** Analysis Date: **07/17/2012** Seq No: **4714536**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,1-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	
1,1-Dichloropropene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,3,5-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,4-Dioxane	BRL	150	0	0	0	0	0	0	0	0	
2,2-Dichloropropane	BRL	2.0	0	0	0	0	0	0	0	0	
2-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Isopropyltoluene	BRL	2.0	0	0	0	0	0	0	0	0	
Benzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromobenzene	BRL	1.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 163991

Sample ID: **MB-163991** Client ID: Units: **ug/L** Prep Date: **07/17/2012** Run No: **225198**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163991** Analysis Date: **07/17/2012** Seq No: **4714536**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	1.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	2.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	1.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Hexachlorobutadiene	BRL	1.0	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
n-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
n-Propylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Naphthalene	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
sec-Butylbenzene	BRL	2.0	0	0	0	0	0	0	0	0	
Styrene	BRL	1.0	0	0	0	0	0	0	0	0	
tert-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Toluene	BRL	1.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 163991

Sample ID: **MB-163991** Client ID: Units: **ug/L** Prep Date: **07/17/2012** Run No: **225198**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163991** Analysis Date: **07/17/2012** Seq No: **4714536**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	1.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	44.21	0	50	0	88.4	67.4	123	0	0	0	
Surr: Dibromofluoromethane	48.06	0	50	0	96.1	75.5	128	0	0	0	
Surr: Toluene-d8	45.34	0	50	0	90.7	70	120	0	0	0	

Sample ID: **LCS-163991** Client ID: Units: **ug/L** Prep Date: **07/17/2012** Run No: **225198**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163991** Analysis Date: **07/17/2012** Seq No: **4714535**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	42.86	2.0	50	0	85.7	60	140	0	0	0	
Benzene	48.56	1.0	50	0	97.1	70	130	0	0	0	
Chlorobenzene	51.45	1.0	50	0	103	70	130	0	0	0	
Toluene	42.93	1.0	50	0	85.9	70	130	0	0	0	
Trichloroethene	50.95	1.0	50	0	102	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	49.03	0	50	0	98.1	67.4	123	0	0	0	
Surr: Dibromofluoromethane	49.31	0	50	0	98.6	75.5	128	0	0	0	
Surr: Toluene-d8	46.81	0	50	0	93.6	70	120	0	0	0	

Sample ID: **1207746-001AMS** Client ID: **TB-1-0712** Units: **ug/L** Prep Date: **07/17/2012** Run No: **225198**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163991** Analysis Date: **07/17/2012** Seq No: **4714539**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	59.81	2.0	50	0	120	50.1	179	0	0	0	
Benzene	55.25	1.0	50	0	110	61.2	150	0	0	0	
Chlorobenzene	56.73	1.0	50	0	113	72.1	140	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 163991

Sample ID: **1207746-001AMS**	Client ID: **TB-1-0712**			Units: **ug/L**	Prep Date: **07/17/2012**	Run No: **225198**
SampleType: **MS**	TestCode: **Volatile Organic Compounds by GC/MS**	**SW8260B**		BatchID: **163991**	Analysis Date: **07/17/2012**	Seq No: **4714539**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Toluene	48.11	1.0	50	0	96.2	58.7	154	0	0	0	
Trichloroethene	55.76	1.0	50	0	112	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	52.32	0	50	0	105	67.4	123	0	0	0	
Surr: Dibromofluoromethane	49.95	0	50	0	99.9	75.5	128	0	0	0	
Surr: Toluene-d8	47.13	0	50	0	94.3	70	120	0	0	0	

Sample ID: **1207746-001AMSD**	Client ID: **TB-1-0712**			Units: **ug/L**	Prep Date: **07/17/2012**	Run No: **225198**
SampleType: **MSD**	TestCode: **Volatile Organic Compounds by GC/MS**	**SW8260B**		BatchID: **163991**	Analysis Date: **07/17/2012**	Seq No: **4714540**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	56.02	2.0	50	0	112	50.1	179	59.81	6.54	23.3	
Benzene	53.01	1.0	50	0	106	61.2	150	55.25	4.14	19	
Chlorobenzene	54.70	1.0	50	0	109	72.1	140	56.73	3.64	21.5	
Toluene	46.85	1.0	50	0	93.7	58.7	154	48.11	2.65	20	
Trichloroethene	52.91	1.0	50	0	106	68.3	149	55.76	5.25	17.7	
Surr: 4-Bromofluorobenzene	51.57	0	50	0	103	67.4	123	52.32	0	0	
Surr: Dibromofluoromethane	50.79	0	50	0	102	75.5	128	49.95	0	0	
Surr: Toluene-d8	46.71	0	50	0	93.4	70	120	47.13	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 163999

Sample ID: **MB-163999** Client ID: Units: **ug/L** Prep Date: **07/17/2012** Run No: **225251**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163999** Analysis Date: **07/17/2012** Seq No: **4719295**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,1-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	
1,1-Dichloropropene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,3,5-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,4-Dioxane	BRL	150	0	0	0	0	0	0	0	0	
2,2-Dichloropropane	BRL	2.0	0	0	0	0	0	0	0	0	
2-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Isopropyltoluene	BRL	2.0	0	0	0	0	0	0	0	0	
Benzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromobenzene	BRL	1.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 163999

Sample ID: **MB-163999** Client ID: Units: **ug/L** Prep Date: **07/17/2012** Run No: **225251**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163999** Analysis Date: **07/17/2012** Seq No: **4719295**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	1.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	2.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	1.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Hexachlorobutadiene	BRL	1.0	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
n-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
n-Propylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Naphthalene	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
sec-Butylbenzene	BRL	2.0	0	0	0	0	0	0	0	0	
Styrene	BRL	1.0	0	0	0	0	0	0	0	0	
tert-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Toluene	BRL	1.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 163999

Sample ID: **MB-163999** Client ID: Units: **ug/L** Prep Date: **07/17/2012** Run No: **225251**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163999** Analysis Date: **07/17/2012** Seq No: **4719295**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	1.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	42.96	0	50	0	85.9	67.4	123	0	0	0	
Surr: Dibromofluoromethane	49.36	0	50	0	98.7	75.5	128	0	0	0	
Surr: Toluene-d8	43.81	0	50	0	87.6	70	120	0	0	0	

Sample ID: **LCS-163999** Client ID: Units: **ug/L** Prep Date: **07/17/2012** Run No: **225251**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163999** Analysis Date: **07/17/2012** Seq No: **4719294**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	58.19	2.0	50	0	116	60	140	0	0	0	
Benzene	55.73	1.0	50	0	111	70	130	0	0	0	
Chlorobenzene	57.71	1.0	50	0	115	70	130	0	0	0	
Toluene	47.73	1.0	50	0	95.5	70	130	0	0	0	
Trichloroethene	57.62	1.0	50	0	115	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	52.70	0	50	0	105	67.4	123	0	0	0	
Surr: Dibromofluoromethane	50.37	0	50	0	101	75.5	128	0	0	0	
Surr: Toluene-d8	46.97	0	50	0	93.9	70	120	0	0	0	

Sample ID: **1207964-003AMS** Client ID: Units: **ug/L** Prep Date: **07/17/2012** Run No: **225251**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **163999** Analysis Date: **07/18/2012** Seq No: **4719297**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	362.1	2.0	50	339.1	46.1	50.1	179	0	0	0	SE
Benzene	58.83	1.0	50	0.7300	116	61.2	150	0	0	0	
Chlorobenzene	58.88	1.0	50	0	118	72.1	140	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 163999

Sample ID: **1207964-003AMS** Client ID:
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS** **SW8260B**
Units: **ug/L** Prep Date: **07/17/2012** Run No: **225251**
BatchID: **163999** Analysis Date: **07/18/2012** Seq No: **4719297**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Toluene	50.20	1.0	50	0.6000	99.2	58.7	154	0	0	0	
Trichloroethene	290.9	1.0	50	241.5	98.8	68.3	149	0	0	0	E
Surr: 4-Bromofluorobenzene	50.54	0	50	0	101	67.4	123	0	0	0	
Surr: Dibromofluoromethane	52.58	0	50	0	105	75.5	128	0	0	0	
Surr: Toluene-d8	47.88	0	50	0	95.8	70	120	0	0	0	

Sample ID: **1207964-003AMSD** Client ID:
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS** **SW8260B**
Units: **ug/L** Prep Date: **07/17/2012** Run No: **225251**
BatchID: **163999** Analysis Date: **07/18/2012** Seq No: **4719298**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	343.0	2.0	50	339.1	7.86	50.1	179	362.1	5.42	23.3	SE
Benzene	56.04	1.0	50	0.7300	111	61.2	150	58.83	4.86	19	
Chlorobenzene	58.54	1.0	50	0	117	72.1	140	58.88	0.579	21.5	
Toluene	48.48	1.0	50	0.6000	95.8	58.7	154	50.20	3.49	20	
Trichloroethene	280.1	1.0	50	241.5	77.1	68.3	149	290.9	3.79	17.7	E
Surr: 4-Bromofluorobenzene	53.55	0	50	0	107	67.4	123	50.54	0	0	
Surr: Dibromofluoromethane	50.76	0	50	0	102	75.5	128	52.58	0	0	
Surr: Toluene-d8	47.43	0	50	0	94.9	70	120	47.88	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 164102

Sample ID: **MB-164102**	Client ID:			Units: **ug/L**	Prep Date: **07/19/2012**	Run No: **225458**
SampleType: **MBLK**	TestCode: **1,4-Dioxane by SIM GC/MS** **SW8260B-SIM**			BatchID: **164102**	Analysis Date: **07/19/2012**	Seq No: **4718735**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	51.05	0	50	0	102	70	130	0	0	0	
Surr: Dibromofluoromethane	47.10	0	50	0	94.2	70	130	0	0	0	
Surr: Toluene-d8	49.94	0	50	0	99.9	70	130	0	0	0	

Sample ID: **LCS-164102**	Client ID:			Units: **ug/L**	Prep Date: **07/19/2012**	Run No: **225458**
SampleType: **LCS**	TestCode: **1,4-Dioxane by SIM GC/MS** **SW8260B-SIM**			BatchID: **164102**	Analysis Date: **07/19/2012**	Seq No: **4718734**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.86	5.0	10	0	109	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	51.54	0	50	0	103	70	130	0	0	0	
Surr: Dibromofluoromethane	47.25	0	50	0	94.5	70	130	0	0	0	
Surr: Toluene-d8	49.82	0	50	0	99.6	70	130	0	0	0	

Sample ID: **1207746-015AMS**	Client ID: **MW-28-0712**			Units: **ug/L**	Prep Date: **07/19/2012**	Run No: **225458**
SampleType: **MS**	TestCode: **1,4-Dioxane by SIM GC/MS** **SW8260B-SIM**			BatchID: **164102**	Analysis Date: **07/20/2012**	Seq No: **4718754**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.450	5.0	10	1.520	59.3	70	130	0	0	0	S
Surr: 4-Bromofluorobenzene	54.20	0	50	0	108	70	130	0	0	0	
Surr: Dibromofluoromethane	44.92	0	50	0	89.8	70	130	0	0	0	
Surr: Toluene-d8	48.35	0	50	0	96.7	70	130	0	0	0	

Sample ID: **1207746-015AMSD**	Client ID: **MW-28-0712**			Units: **ug/L**	Prep Date: **07/19/2012**	Run No: **225458**
SampleType: **MSD**	TestCode: **1,4-Dioxane by SIM GC/MS** **SW8260B-SIM**			BatchID: **164102**	Analysis Date: **07/20/2012**	Seq No: **4718759**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.780	5.0	10	1.520	62.6	70	130	7.450	4.33	20	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1207746

ANALYTICAL QC SUMMARY REPORT

BatchID: 164102

Sample ID: **1207746-015AMSD** Client ID: **MW-28-0712** Units: **ug/L** Prep Date: **07/19/2012** Run No: **225458**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **164102** Analysis Date: **07/20/2012** Seq No: **4718759**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	53.72	0	50	0	107	70	130	54.20	0	0	
Surr: Dibromofluoromethane	44.95	0	50	0	89.9	70	130	44.92	0	0	
Surr: Toluene-d8	48.74	0	50	0	97.5	70	130	48.35	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AUGUST 2012 SAMPLING EVENT

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

August 16, 2012

Rhonda Quinn
AMEC E&I, Inc.
1075 Big Shanty Road, NW, Suite 100
Kennesaw GA 30144

TEL: (770) 421-3400
FAX: (770) 421-3486

RE: Thermo King Louisville

Dear Rhonda Quinn: Order No: 1208671

Analytical Environmental Services, Inc. received 5 samples on August 9, 2012 10:30 am for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Kathryn E. Waters

Kathryn Waters
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1208671

Date: 8/8/12 Page 1 of 2

COMPANY:	ADDRESS:
AMEC E&I	1075 Big Shanty Rd, ste 100 Kennesaw, GA 30144
PHONE: 770-421-3400	FAX: 770-421-3486
SAMPLED BY: Daniel Howard/Ever Guillen	SIGNATURE: D Howard

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC 1,4-Dioxane	1,4-Dioxane	PRESERVATION (See codes) HI	HI	REMARKS	No # of Containers
1	TripBlank-1-0812	8/7/12	1500	X			X	*				2
2	Mason Branch #2		1555	X			X	X				4
3	Seep H		1615	X			X	X				4
4	Seep G		1630	X			X	X				4
5	Seep #2		1655	X			X	X				4
6												
7												
8												
9												
10												
11												
12												
13												
14												

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Daniel L Howard	8/8/12/1230	1:	8/9/12 10:30
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: TK Louisville

PROJECT #: 6122090322

SITE ADDRESS: Louisville GA

SEND REPORT TO: Rhonda Quinn

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers

Turnaround Time Request

- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush **(auth req.)**
- [ ] Other

STATE PROGRAM (if any):

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1208671

Date: 8/8/12 Page 2 of 2

COMPANY: AMEC E&T

ADDRESS: 1075 Big Shanty Rd, Ste 100 Kennesaw, GA 30144

PHONE: 770-421-3400

FAX: 770-421-3486

SAMPLED BY: Daniel Howard/Ever Guillen

SIGNATURE: D Howard

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED: VOC list + 1,4 Dioxane	REMARKS	No # of Containers
1	TK-SS-01	8/7/12	1757	X		S	X		4
2	TK-SS-02		1816	X		S	X		4
3	TK-SS-03		1825	X		S	X		4
4	TK-SS-04		1840	X		S	X		4
5	TK-SS-05		1850	X		S	X		4
6									
7									
8									
9									
10									
11									
12									
13									
14									

PRESERVATION (See codes)

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Daniel R Howard	8/8/12/1230	1:	8/9/12 10:30
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: TK Louisville

PROJECT #: 6122090322

SITE ADDRESS: Louisville GA

SEND REPORT TO: Rhonda Quinn

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers

Turnaround Time Request

- ○ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush **(auth req.)**
- ○ Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS: Hold for analysis pending results of seep water samples

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER_____

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TRIP BLANK-1-0812
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 3:00:00 PM
Lab ID:	1208671-001	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**			**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,1-Dichloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,1-Dichloroethene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,1-Dichloropropene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165008	1	08/14/2012 16:29	JT
1,2-Dibromoethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,2-Dichloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,3-Dichloropropane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
1,4-Dioxane	BRL	100		ug/L	165008	1	08/14/2012 16:29	JT
2,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
2-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
4-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
4-Isopropyltoluene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Benzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Bromobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Bromochloromethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Bromodichloromethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Bromoform	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Bromomethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:29	JT
Carbon tetrachloride	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Chlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Chloroethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:29	JT
Chloroform	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Chloromethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:29	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Dibromochloromethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Dibromomethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:29	JT
Ethylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TRIP BLANK-1-0812
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 3:00:00 PM
Lab ID:	1208671-001	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Isopropylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
m,p-Xylene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Methylene chloride	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
n-Butylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
n-Propylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Naphthalene	BRL	5.0		ug/L	165008	1	08/14/2012 16:29	JT
o-Xylene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
sec-Butylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Styrene	BRL	5.0		ug/L	165008	1	08/14/2012 16:29	JT
tert-Butylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Tetrachloroethene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Toluene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Trichloroethene	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Trichlorofluoromethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:29	JT
Vinyl chloride	BRL	1.0		ug/L	165008	1	08/14/2012 16:29	JT
Surr: 4-Bromofluorobenzene	82.6	67.4-123		%REC	165008	1	08/14/2012 16:29	JT
Surr: Dibromofluoromethane	103	75.5-128		%REC	165008	1	08/14/2012 16:29	JT
Surr: Toluene-d8	88.8	70-120		%REC	165008	1	08/14/2012 16:29	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	165040	1	08/10/2012 14:21	JT
Surr: 4-Bromofluorobenzene	110	70-130		%REC	165040	1	08/10/2012 14:21	JT
Surr: Dibromofluoromethane	84.4	70-130		%REC	165040	1	08/10/2012 14:21	JT
Surr: Toluene-d8	95.1	70-130		%REC	165040	1	08/10/2012 14:21	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MASON BRANCH #2
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 3:55:00 PM
Lab ID:	1208671-002	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,1-Dichloroethane	4.4	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,1-Dichloroethene	1.4	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,1-Dichloropropene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165008	1	08/10/2012 16:30	JT
1,2-Dibromoethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,2-Dichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,3-Dichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
1,4-Dioxane	BRL	100		ug/L	165008	1	08/10/2012 16:30	JT
2,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
2-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
4-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
4-Isopropyltoluene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Benzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Bromobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Bromochloromethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Bromodichloromethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Bromoform	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Bromomethane	BRL	5.0		ug/L	165008	1	08/10/2012 16:30	JT
Carbon tetrachloride	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Chlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Chloroethane	BRL	5.0		ug/L	165008	1	08/10/2012 16:30	JT
Chloroform	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Chloromethane	BRL	5.0		ug/L	165008	1	08/10/2012 16:30	JT
cis-1,2-Dichloroethene	46	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Dibromochloromethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Dibromomethane	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	165008	1	08/10/2012 16:30	JT
Ethylbenzene	13	1.0		ug/L	165008	1	08/10/2012 16:30	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MASON BRANCH #2
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 3:55:00 PM
Lab ID:	1208671-002	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Isopropylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
m,p-Xylene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Methylene chloride	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
n-Butylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
n-Propylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Naphthalene	BRL	5.0		ug/L	165008	1	08/10/2012 16:30	JT
o-Xylene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
sec-Butylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Styrene	BRL	5.0		ug/L	165008	1	08/10/2012 16:30	JT
tert-Butylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Tetrachloroethene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Toluene	22	1.0		ug/L	165008	1	08/10/2012 16:30	JT
trans-1,2-Dichloroethene	2.3	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Trichloroethene	BRL	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Trichlorofluoromethane	BRL	5.0		ug/L	165008	1	08/10/2012 16:30	JT
Vinyl chloride	9.3	1.0		ug/L	165008	1	08/10/2012 16:30	JT
Surr: 4-Bromofluorobenzene	94.4	67.4-123		%REC	165008	1	08/10/2012 16:30	JT
Surr: Dibromofluoromethane	101	75.5-128		%REC	165008	1	08/10/2012 16:30	JT
Surr: Toluene-d8	83	70-120		%REC	165008	1	08/10/2012 16:30	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	165040	1	08/10/2012 14:48	JT
Surr: 4-Bromofluorobenzene	112	70-130		%REC	165040	1	08/10/2012 14:48	JT
Surr: Dibromofluoromethane	84.9	70-130		%REC	165040	1	08/10/2012 14:48	JT
Surr: Toluene-d8	94.9	70-130		%REC	165040	1	08/10/2012 14:48	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP H
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 4:15:00 PM
Lab ID:	1208671-003	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,1,1-Trichloroethane	15	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,1-Dichloroethane	1.1	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,1-Dichloroethene	69	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,1-Dichloropropene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165008	1	08/14/2012 16:59	JT
1,2-Dibromoethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,2-Dichloroethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,3-Dichloropropane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
1,4-Dioxane	BRL	100		ug/L	165008	1	08/14/2012 16:59	JT
2,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
2-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
4-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
4-Isopropyltoluene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Benzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Bromobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Bromochloromethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Bromodichloromethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Bromoform	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Bromomethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:59	JT
Carbon tetrachloride	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Chlorobenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Chloroethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:59	JT
Chloroform	2.6	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Chloromethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:59	JT
cis-1,2-Dichloroethene	120	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Dibromochloromethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Dibromomethane	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:59	JT
Ethylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP H
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 4:15:00 PM
Lab ID:	1208671-003	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Isopropylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
m,p-Xylene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Methylene chloride	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
n-Butylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
n-Propylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Naphthalene	BRL	5.0		ug/L	165008	1	08/14/2012 16:59	JT
o-Xylene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
sec-Butylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Styrene	BRL	5.0		ug/L	165008	1	08/14/2012 16:59	JT
tert-Butylbenzene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Tetrachloroethene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Toluene	19	1.0		ug/L	165008	1	08/14/2012 16:59	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Trichloroethene	800	10		ug/L	165008	10	08/13/2012 18:36	JT
Trichlorofluoromethane	BRL	5.0		ug/L	165008	1	08/14/2012 16:59	JT
Vinyl chloride	BRL	1.0		ug/L	165008	1	08/14/2012 16:59	JT
Surr: 4-Bromofluorobenzene	75.4	67.4-123		%REC	165008	10	08/13/2012 18:36	JT
Surr: 4-Bromofluorobenzene	84	67.4-123		%REC	165008	1	08/14/2012 16:59	JT
Surr: Dibromofluoromethane	103	75.5-128		%REC	165008	1	08/14/2012 16:59	JT
Surr: Dibromofluoromethane	113	75.5-128		%REC	165008	10	08/13/2012 18:36	JT
Surr: Toluene-d8	87.7	70-120		%REC	165008	1	08/14/2012 16:59	JT
Surr: Toluene-d8	91.4	70-120		%REC	165008	10	08/13/2012 18:36	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	165040	1	08/10/2012 15:15	JT
Surr: 4-Bromofluorobenzene	111	70-130		%REC	165040	1	08/10/2012 15:15	JT
Surr: Dibromofluoromethane	85	70-130		%REC	165040	1	08/10/2012 15:15	JT
Surr: Toluene-d8	96	70-130		%REC	165040	1	08/10/2012 15:15	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP G
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 4:30:00 PM
Lab ID:	1208671-004	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,1-Dichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,1-Dichloroethene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,1-Dichloropropene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165008	1	08/10/2012 17:29	JT
1,2-Dibromoethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,2-Dichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,3-Dichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
1,4-Dioxane	BRL	100		ug/L	165008	1	08/10/2012 17:29	JT
2,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
2-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
4-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
4-Isopropyltoluene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Benzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Bromobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Bromochloromethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Bromodichloromethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Bromoform	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Bromomethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:29	JT
Carbon tetrachloride	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Chlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Chloroethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:29	JT
Chloroform	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Chloromethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:29	JT
cis-1,2-Dichloroethene	6.2	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Dibromochloromethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Dibromomethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:29	JT
Ethylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP G
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 4:30:00 PM
Lab ID:	1208671-004	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Isopropylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
m,p-Xylene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Methylene chloride	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
n-Butylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
n-Propylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Naphthalene	BRL	5.0		ug/L	165008	1	08/10/2012 17:29	JT
o-Xylene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
sec-Butylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Styrene	BRL	5.0		ug/L	165008	1	08/10/2012 17:29	JT
tert-Butylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Tetrachloroethene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Toluene	2.4	1.0		ug/L	165008	1	08/10/2012 17:29	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Trichloroethene	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Trichlorofluoromethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:29	JT
Vinyl chloride	BRL	1.0		ug/L	165008	1	08/10/2012 17:29	JT
Surr: 4-Bromofluorobenzene	84.3	67.4-123		%REC	165008	1	08/10/2012 17:29	JT
Surr: Dibromofluoromethane	100	75.5-128		%REC	165008	1	08/10/2012 17:29	JT
Surr: Toluene-d8	87.5	70-120		%REC	165008	1	08/10/2012 17:29	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	165040	1	08/10/2012 15:43	JT
Surr: 4-Bromofluorobenzene	109	70-130		%REC	165040	1	08/10/2012 15:43	JT
Surr: Dibromofluoromethane	86.1	70-130		%REC	165040	1	08/10/2012 15:43	JT
Surr: Toluene-d8	95.8	70-130		%REC	165040	1	08/10/2012 15:43	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP #2
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 4:55:00 PM
Lab ID:	1208671-005	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,1-Dichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,1-Dichloroethene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,1-Dichloropropene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165008	1	08/10/2012 17:59	JT
1,2-Dibromoethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,2-Dichloroethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,3-Dichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
1,4-Dioxane	BRL	100		ug/L	165008	1	08/10/2012 17:59	JT
2,2-Dichloropropane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
2-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
4-Chlorotoluene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
4-Isopropyltoluene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Benzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Bromobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Bromochloromethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Bromodichloromethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Bromoform	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Bromomethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:59	JT
Carbon tetrachloride	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Chlorobenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Chloroethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:59	JT
Chloroform	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Chloromethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:59	JT
cis-1,2-Dichloroethene	8.2	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Dibromochloromethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Dibromomethane	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:59	JT
Ethylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP #2
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 4:55:00 PM
Lab ID:	1208671-005	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Hexachlorobutadiene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Isopropylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
m,p-Xylene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Methylene chloride	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
n-Butylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
n-Propylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Naphthalene	BRL	5.0		ug/L	165008	1	08/10/2012 17:59	JT
o-Xylene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
sec-Butylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Styrene	BRL	5.0		ug/L	165008	1	08/10/2012 17:59	JT
tert-Butylbenzene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Tetrachloroethene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Toluene	26	1.0		ug/L	165008	1	08/10/2012 17:59	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Trichloroethene	1.4	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Trichlorofluoromethane	BRL	5.0		ug/L	165008	1	08/10/2012 17:59	JT
Vinyl chloride	BRL	1.0		ug/L	165008	1	08/10/2012 17:59	JT
Surr: 4-Bromofluorobenzene	82.6	67.4-123		%REC	165008	1	08/10/2012 17:59	JT
Surr: Dibromofluoromethane	104	75.5-128		%REC	165008	1	08/10/2012 17:59	JT
Surr: Toluene-d8	89.1	70-120		%REC	165008	1	08/10/2012 17:59	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	165040	1	08/10/2012 16:10	JT
Surr: 4-Bromofluorobenzene	109	70-130		%REC	165040	1	08/10/2012 16:10	JT
Surr: Dibromofluoromethane	84.2	70-130		%REC	165040	1	08/10/2012 16:10	JT
Surr: Toluene-d8	94.7	70-130		%REC	165040	1	08/10/2012 16:10	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Amec Work Order Number 1208671

Checklist completed by _____ 8/9/12
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes ✓ No __ Not Present __

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.6 °C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Analytical Environmental Services, Inc

Date: 16-Aug-12

Client: AMEC E&I, Inc.
Project: Thermo King Louisville
Lab Order: 1208671

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1208671-001A	TRIP BLANK-1-0812	8/7/2012 3:00:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/09/2012	08/14/2012
1208671-001A	TRIP BLANK-1-0812	8/7/2012 3:00:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2012	08/10/2012
1208671-002A	MASON BRANCH #2	8/7/2012 3:55:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/09/2012	08/10/2012
1208671-002A	MASON BRANCH #2	8/7/2012 3:55:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2012	08/10/2012
1208671-003A	SEEP H	8/7/2012 4:15:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/09/2012	08/13/2012
1208671-003A	SEEP H	8/7/2012 4:15:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/09/2012	08/14/2012
1208671-003A	SEEP H	8/7/2012 4:15:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2012	08/10/2012
1208671-004A	SEEP G	8/7/2012 4:30:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/09/2012	08/10/2012
1208671-004A	SEEP G	8/7/2012 4:30:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2012	08/10/2012
1208671-005A	SEEP #2	8/7/2012 4:55:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/09/2012	08/10/2012
1208671-005A	SEEP #2	8/7/2012 4:55:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2012	08/10/2012

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208671

ANALYTICAL QC SUMMARY REPORT

BatchID: 165008

Sample ID: **MB-165008** Client ID: Units: **ug/L** Prep Date: **08/09/2012** Run No: **226721**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165008** Analysis Date: **08/09/2012** Seq No: **4746902**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,1-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	
1,1-Dichloropropene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,3,5-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,4-Dioxane	BRL	150	0	0	0	0	0	0	0	0	
2,2-Dichloropropane	BRL	2.0	0	0	0	0	0	0	0	0	
2-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Isopropyltoluene	BRL	2.0	0	0	0	0	0	0	0	0	
Benzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromobenzene	BRL	1.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208671

ANALYTICAL QC SUMMARY REPORT

BatchID: 165008

Sample ID: **MB-165008** Client ID: Units: **ug/L** Prep Date: **08/09/2012** Run No: **226721**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165008** Analysis Date: **08/09/2012** Seq No: **4746902**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	1.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	2.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	1.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Hexachlorobutadiene	BRL	1.0	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
n-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
n-Propylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Naphthalene	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
sec-Butylbenzene	BRL	2.0	0	0	0	0	0	0	0	0	
Styrene	BRL	1.0	0	0	0	0	0	0	0	0	
tert-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Toluene	BRL	1.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208671

ANALYTICAL QC SUMMARY REPORT

BatchID: 165008

Sample ID: **MB-165008** Client ID: Units: **ug/L** Prep Date: **08/09/2012** Run No: **226721**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165008** Analysis Date: **08/09/2012** Seq No: **4746902**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	1.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	39.17	0	50	0	78.3	67.4	123	0	0	0	
Surr: Dibromofluoromethane	50.62	0	50	0	101	75.5	128	0	0	0	
Surr: Toluene-d8	43.66	0	50	0	87.3	70	120	0	0	0	

Sample ID: **LCS-165008** Client ID: Units: **ug/L** Prep Date: **08/09/2012** Run No: **226721**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165008** Analysis Date: **08/09/2012** Seq No: **4746901**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	36.07	2.0	50	0	72.1	60	140	0	0	0	
Benzene	54.19	1.0	50	0	108	70	130	0	0	0	
Chlorobenzene	54.11	1.0	50	0	108	70	130	0	0	0	
Toluene	46.16	1.0	50	0	92.3	70	130	0	0	0	
Trichloroethene	55.42	1.0	50	0	111	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	49.19	0	50	0	98.4	67.4	123	0	0	0	
Surr: Dibromofluoromethane	48.81	0	50	0	97.6	75.5	128	0	0	0	
Surr: Toluene-d8	44.11	0	50	0	88.2	70	120	0	0	0	

Sample ID: **1208522-001AMS** Client ID: Units: **ug/L** Prep Date: **08/09/2012** Run No: **226841**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165008** Analysis Date: **08/13/2012** Seq No: **4748655**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	25550	1000	25000	413.1	101	50.1	179	0	0	0	
Benzene	31620	500	25000	0	126	61.2	150	0	0	0	
Chlorobenzene	28260	500	25000	9.580	113	72.1	140	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208671

ANALYTICAL QC SUMMARY REPORT

BatchID: 165008

Sample ID: **1208522-001AMS** Client ID:
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS** **SW8260B**
Units: **ug/L** Prep Date: **08/09/2012** Run No: **226841**
BatchID: **165008** Analysis Date: **08/13/2012** Seq No: **4748655**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Toluene	30560	500	25000	2426	113	58.7	154	0	0	0	
Trichloroethene	31820	500	25000	109.6	127	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	26430	0	25000	0	106	67.4	123	0	0	0	
Surr: Dibromofluoromethane	27350	0	25000	0	109	75.5	128	0	0	0	
Surr: Toluene-d8	25100	0	25000	0	100	70	120	0	0	0	

Sample ID: **1208522-001AMSD** Client ID:
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS** **SW8260B**
Units: **ug/L** Prep Date: **08/09/2012** Run No: **226841**
BatchID: **165008** Analysis Date: **08/13/2012** Seq No: **4748659**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	22970	1000	25000	413.1	90.2	50.1	179	25550	10.7	23.3	
Benzene	30330	500	25000	0	121	61.2	150	31620	4.15	19	
Chlorobenzene	27720	500	25000	9.580	111	72.1	140	28260	1.95	21.5	
Toluene	29440	500	25000	2426	108	58.7	154	30560	3.72	20	
Trichloroethene	31900	500	25000	109.6	127	68.3	149	31820	0.267	17.7	
Surr: 4-Bromofluorobenzene	26760	0	25000	0	107	67.4	123	26430	0	0	
Surr: Dibromofluoromethane	27610	0	25000	0	110	75.5	128	27350	0	0	
Surr: Toluene-d8	24320	0	25000	0	97.3	70	120	25100	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208671

ANALYTICAL QC SUMMARY REPORT

BatchID: 165040

Sample ID: **MB-165040**	Client ID:			Units: **ug/L**	Prep Date: **08/10/2012**	Run No: **226779**
SampleType: **MBLK**	TestCode: **1,4-Dioxane by SIM GC/MS**	**SW8260B-SIM**		BatchID: **165040**	Analysis Date: **08/10/2012**	Seq No: **4746142**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	54.16	0	50	0	108	70	130	0	0	0	
Surr: Dibromofluoromethane	41.94	0	50	0	83.9	70	130	0	0	0	
Surr: Toluene-d8	47.52	0	50	0	95	70	130	0	0	0	

Sample ID: **LCS-165040**	Client ID:			Units: **ug/L**	Prep Date: **08/10/2012**	Run No: **226779**
SampleType: **LCS**	TestCode: **1,4-Dioxane by SIM GC/MS**	**SW8260B-SIM**		BatchID: **165040**	Analysis Date: **08/10/2012**	Seq No: **4746140**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.740	5.0	10	0	77.4	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	54.31	0	50	0	109	70	130	0	0	0	
Surr: Dibromofluoromethane	42.13	0	50	0	84.3	70	130	0	0	0	
Surr: Toluene-d8	47.47	0	50	0	94.9	70	130	0	0	0	

Sample ID: **1208522-002AMS**	Client ID:			Units: **ug/L**	Prep Date: **08/10/2012**	Run No: **226779**
SampleType: **MS**	TestCode: **1,4-Dioxane by SIM GC/MS**	**SW8260B-SIM**		BatchID: **165040**	Analysis Date: **08/10/2012**	Seq No: **4746152**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.37	5.0	10	2.810	75.6	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	56.50	0	50	0	113	70	130	0	0	0	
Surr: Dibromofluoromethane	44.61	0	50	0	89.2	70	130	0	0	0	
Surr: Toluene-d8	46.41	0	50	0	92.8	70	130	0	0	0	

Sample ID: **1208522-002AMSD**	Client ID:			Units: **ug/L**	Prep Date: **08/10/2012**	Run No: **226779**
SampleType: **MSD**	TestCode: **1,4-Dioxane by SIM GC/MS**	**SW8260B-SIM**		BatchID: **165040**	Analysis Date: **08/10/2012**	Seq No: **4746154**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.93	5.0	10	2.810	81.2	70	130	10.37	5.26	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208671

ANALYTICAL QC SUMMARY REPORT

BatchID: 165040

Sample ID: **1208522-002AMSD** Client ID:
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**
Units: **ug/L** Prep Date: **08/10/2012** Run No: **226779**
BatchID: **165040** Analysis Date: **08/10/2012** Seq No: **4746154**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	56.18	0	50	0	112	70	130	56.50	0	0	
Surr: Dibromofluoromethane	44.94	0	50	0	89.9	70	130	44.61	0	0	
Surr: Toluene-d8	47.27	0	50	0	94.5	70	130	46.41	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

August 25, 2012

Rhonda Quinn
AMEC E&I, Inc.
1075 Big Shanty Road, NW, Suite 100
Kennesaw GA 30144

TEL: (770) 421-3400
FAX: (770) 421-3486

RE: Thermo King Louisville

Dear Rhonda Quinn: Order No: 1208F35

Analytical Environmental Services, Inc. received 7 samples on August 9, 2012 10:30 am for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Kathryn E. Waters

Kathryn Waters
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

1208F35
8/20/12

Work Order: ~~1208671~~

Date: 8/8/12 Page 1 of 2

COMPANY: AMEC E&I

ADDRESS: 1075 Big Shanty Rd, Ste 100 Kennesaw, GA 30144

PHONE: 770-421-3400

FAX: 770-421-3486

SAMPLED BY: Daniel Howard/Ever Guillen

SIGNATURE: D Howard

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC list + 1,4-Dioxane HI	1,4-Dioxane SIM HI	REMARKS	No # of Containers
1	TripBlank-1-0812	8/7/12	1500	X			X	[illegible]		2
2	Mason Branch #2	↓	1555	X			X	X		4
3	Seep H	↓	1615	X			X	X		4
4	Seep G	↓	1630	X			X	X		4
5	Seep #2	↓	1655	X			X	X		4
6										
7										
8										
9										
10										
11										
12										
13										
14										

PRESERVATION (See codes)

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Daniel L Howard	8/8/12 1230	1: [signature]	8/9/12 1030
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

PROJECT INFORMATION
PROJECT NAME: TK Louisville
PROJECT #: 6122090322
SITE ADDRESS: Louisville GA
SEND REPORT TO: Rhonda Quinn
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers

Turnaround Time Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other

STATE PROGRAM (if any):
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

1208F35 8/20/12

Work Order: ~~1208671~~

Date: 8/8/12 Page 2 of 2

COMPANY:	ADDRESS:
AMEC E&I	1075 Big Shanty Rd, Ste 100 Kennesaw, GA 30144
PHONE: 770-421-3400	FAX: 770-421-3486
SAMPLED BY: Daniel Howard/Ever Guillen	SIGNATURE: D Howard

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED: VOC list + 1,4 Dioxane	PRESERVATION (See codes)	REMARKS	No # of Containers
1	TK-55-01	8/7/12	1757	X		S	X			4
2	TK-55-02		1816	X		S	X			4
3	TK-55-03		1825	X		S	X			4
4	TK-55-04		1840	X		S	X			4
5	TK-55-05		1850	X		S	X			4
6										
7										
8										
9										
10										
11										
12										
13										
14										

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Daniel R Howard	8/8/12/1230	1:	8/9/12 10:30
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS: Hold for analysis pending results of seep water samples

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: TK Louisville
PROJECT #: 6122090322
SITE ADDRESS: Louisville GA
SEND REPORT TO: Rhonda Quinn
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers

Turnaround Time Request
- O Standard 5 Business Days
- O 2 Business Day Rush
- O Next Business Day Rush
- O Same Day Rush (auth req.)
- O Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-01
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 5:57:00 PM
Lab ID:	1208F35-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5035)**				
1,4-Dioxane	BRL	330		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Dichlorodifluoromethane	BRL	13		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Chloromethane	BRL	13		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Vinyl chloride	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Bromomethane	BRL	13		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Chloroethane	BRL	13		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Trichlorofluoromethane	BRL	13		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,1-Dichloroethene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Methylene chloride	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
trans-1,2-Dichloroethene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
2,2-Dichloropropane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
cis-1,2-Dichloroethene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Chloroform	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,1,1-Trichloroethane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,1-Dichloropropene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Carbon tetrachloride	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Benzene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,2-Dichloroethane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Trichloroethene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,2-Dichloropropane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Bromodichloromethane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Toluene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,1,2-Trichloroethane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Tetrachloroethene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,3-Dichloropropane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Dibromochloromethane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Chlorobenzene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,1,1,2-Tetrachloroethane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Ethylbenzene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Styrene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Bromoform	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,1,2,2-Tetrachloroethane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,2,3-Trichloropropane	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Isopropylbenzene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Naphthalene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
4-Chlorotoluene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,3-Dichlorobenzene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,4-Dichlorobenzene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,2-Dichlorobenzene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
1,2,4-Trichlorobenzene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Hexachlorobutadiene	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-01
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 5:57:00 PM
Lab ID:	1208F35-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Xylenes, Total	BRL	6.6		ug/Kg-dry	165440	1	08/21/2012 12:52	JE
Surr: 4-Bromofluorobenzene	101	56.5-134		%REC	165440	1	08/21/2012 12:52	JE
Surr: Dibromofluoromethane	101	71.8-135		%REC	165440	1	08/21/2012 12:52	JE
Surr: Toluene-d8	97.2	77.1-117		%REC	165440	1	08/21/2012 12:52	JE
PERCENT MOISTURE D2216								
Percent Moisture	14.3	0		wt%	R227703	1	08/24/2012 11:30	AS

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-02
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 6:16:00 PM
Lab ID:	1208F35-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5035)**				
1,4-Dioxane	BRL	340		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Dichlorodifluoromethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Chloromethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Vinyl chloride	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Bromomethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Chloroethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Trichlorofluoromethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,1-Dichloroethene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Methylene chloride	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
trans-1,2-Dichloroethene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
2,2-Dichloropropane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
cis-1,2-Dichloroethene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Chloroform	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,1,1-Trichloroethane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,1-Dichloropropene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Carbon tetrachloride	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Benzene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,2-Dichloroethane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Trichloroethene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,2-Dichloropropane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Bromodichloromethane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Toluene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,1,2-Trichloroethane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Tetrachloroethene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,3-Dichloropropane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Dibromochloromethane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Chlorobenzene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,1,1,2-Tetrachloroethane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Ethylbenzene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Styrene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Bromoform	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,1,2,2-Tetrachloroethane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,2,3-Trichloropropane	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Isopropylbenzene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Naphthalene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
4-Chlorotoluene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,3-Dichlorobenzene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,4-Dichlorobenzene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,2-Dichlorobenzene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
1,2,4-Trichlorobenzene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Hexachlorobutadiene	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-02
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 6:16:00 PM
Lab ID:	1208F35-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Xylenes, Total	BRL	6.8		ug/Kg-dry	165440	1	08/21/2012 13:17	JE
Surr: 4-Bromofluorobenzene	101	56.5-134		%REC	165440	1	08/21/2012 13:17	JE
Surr: Dibromofluoromethane	99.6	71.8-135		%REC	165440	1	08/21/2012 13:17	JE
Surr: Toluene-d8	99.9	77.1-117		%REC	165440	1	08/21/2012 13:17	JE
PERCENT MOISTURE D2216								
Percent Moisture	12.3	0		wt%	R227703	1	08/24/2012 11:30	AS

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-03
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 6:25:00 PM
Lab ID:	1208F35-003	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5035)**				
1,4-Dioxane	BRL	350		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Dichlorodifluoromethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Chloromethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Vinyl chloride	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Bromomethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Chloroethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Trichlorofluoromethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,1-Dichloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Methylene chloride	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
trans-1,2-Dichloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
2,2-Dichloropropane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
cis-1,2-Dichloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Chloroform	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,1,1-Trichloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,1-Dichloropropene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Carbon tetrachloride	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Benzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,2-Dichloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Trichloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,2-Dichloropropane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Bromodichloromethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Toluene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,1,2-Trichloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Tetrachloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,3-Dichloropropane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Dibromochloromethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Chlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,1,1,2-Tetrachloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Ethylbenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Styrene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Bromoform	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,1,2,2-Tetrachloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,2,3-Trichloropropane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Isopropylbenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Naphthalene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
4-Chlorotoluene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,3-Dichlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,4-Dichlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,2-Dichlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
1,2,4-Trichlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Hexachlorobutadiene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-03
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 6:25:00 PM
Lab ID:	1208F35-003	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Xylenes, Total	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 13:42	JE
Surr: 4-Bromofluorobenzene	100	56.5-134		%REC	165440	1	08/21/2012 13:42	JE
Surr: Dibromofluoromethane	103	71.8-135		%REC	165440	1	08/21/2012 13:42	JE
Surr: Toluene-d8	95.6	77.1-117		%REC	165440	1	08/21/2012 13:42	JE
PERCENT MOISTURE D2216								
Percent Moisture	14.8	0		wt%	R227703	1	08/24/2012 11:30	AS

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-04
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 6:40:00 PM
Lab ID:	1208F35-004	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5035)**				
1,4-Dioxane	BRL	380		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Dichlorodifluoromethane	BRL	15		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Chloromethane	BRL	15		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Vinyl chloride	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Bromomethane	BRL	15		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Chloroethane	BRL	15		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Trichlorofluoromethane	BRL	15		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,1-Dichloroethene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Methylene chloride	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
trans-1,2-Dichloroethene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
2,2-Dichloropropane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
cis-1,2-Dichloroethene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Chloroform	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,1,1-Trichloroethane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,1-Dichloropropene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Carbon tetrachloride	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Benzene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,2-Dichloroethane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Trichloroethene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,2-Dichloropropane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Bromodichloromethane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Toluene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,1,2-Trichloroethane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Tetrachloroethene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,3-Dichloropropane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Dibromochloromethane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Chlorobenzene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,1,1,2-Tetrachloroethane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Ethylbenzene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Styrene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Bromoform	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,1,2,2-Tetrachloroethane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,2,3-Trichloropropane	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Isopropylbenzene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Naphthalene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
4-Chlorotoluene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,3-Dichlorobenzene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,4-Dichlorobenzene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,2-Dichlorobenzene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
1,2,4-Trichlorobenzene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Hexachlorobutadiene	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-04
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 6:40:00 PM
Lab ID:	1208F35-004	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Xylenes, Total	BRL	7.6		ug/Kg-dry	165440	1	08/21/2012 14:07	JE
Surr: 4-Bromofluorobenzene	102	56.5-134		%REC	165440	1	08/21/2012 14:07	JE
Surr: Dibromofluoromethane	102	71.8-135		%REC	165440	1	08/21/2012 14:07	JE
Surr: Toluene-d8	98.3	77.1-117		%REC	165440	1	08/21/2012 14:07	JE
PERCENT MOISTURE D2216								
Percent Moisture	8.97	0		wt%	R227703	1	08/24/2012 11:30	AS

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-05
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 6:50:00 PM
Lab ID:	1208F35-005	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5035)**				
1,4-Dioxane	BRL	350		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Dichlorodifluoromethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Chloromethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Vinyl chloride	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Bromomethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Chloroethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Trichlorofluoromethane	BRL	14		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,1-Dichloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Methylene chloride	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
trans-1,2-Dichloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
2,2-Dichloropropane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
cis-1,2-Dichloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Chloroform	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,1,1-Trichloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,1-Dichloropropene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Carbon tetrachloride	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Benzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,2-Dichloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Trichloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,2-Dichloropropane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Bromodichloromethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Toluene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,1,2-Trichloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Tetrachloroethene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,3-Dichloropropane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Dibromochloromethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Chlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,1,1,2-Tetrachloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Ethylbenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Styrene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Bromoform	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,1,2,2-Tetrachloroethane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,2,3-Trichloropropane	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Isopropylbenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Naphthalene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
4-Chlorotoluene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,3-Dichlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,4-Dichlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,2-Dichlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
1,2,4-Trichlorobenzene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Hexachlorobutadiene	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TK-SS-05
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 6:50:00 PM
Lab ID:	1208F35-005	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Xylenes, Total	BRL	7.0		ug/Kg-dry	165440	1	08/21/2012 14:33	JE
Surr: 4-Bromofluorobenzene	98.3	56.5-134		%REC	165440	1	08/21/2012 14:33	JE
Surr: Dibromofluoromethane	102	71.8-135		%REC	165440	1	08/21/2012 14:33	JE
Surr: Toluene-d8	98.6	77.1-117		%REC	165440	1	08/21/2012 14:33	JE
PERCENT MOISTURE D2216								
Percent Moisture	23.0	0		wt%	R227703	1	08/24/2012 11:30	AS

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MASON BRANCH #2
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 3:55:00 PM
Lab ID:	1208F35-006	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Trichloroethene	BRL	1.0		ug/L	165412	1	08/21/2012 14:20	JT
Surr: 4-Bromofluorobenzene	71.8	67.4-123		%REC	165412	1	08/21/2012 14:20	JT
Surr: Dibromofluoromethane	118	75.5-128		%REC	165412	1	08/21/2012 14:20	JT
Surr: Toluene-d8	87.3	70-120		%REC	165412	1	08/21/2012 14:20	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 24-Aug-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP H
Project Name:	Thermo King Louisville	**Collection Date:**	8/7/2012 4:15:00 PM
Lab ID:	1208F35-007	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Trichloroethene	740	10		ug/L	165412	10	08/21/2012 13:20	JT
Surr: 4-Bromofluorobenzene	78.1	67.4-123		%REC	165412	10	08/21/2012 13:20	JT
Surr: Dibromofluoromethane	117	75.5-128		%REC	165412	10	08/21/2012 13:20	JT
Surr: Toluene-d8	86.4	70-120		%REC	165412	10	08/21/2012 13:20	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

1208F35 KCW 8/24/12

Client Amec Work Order Number ~~1208671~~

Checklist completed by _____ 8/9/12
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes ✓ No __ Not Present __

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.6 °C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Analytical Environmental Services, Inc

Date: 25-Aug-12

Client: AMEC E&I, Inc.
Project: Thermo King Louisville
Lab Order: 1208F35

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1208F35-001A	TK-SS-01	8/7/2012 5:57:00PM	Soil	Volatile Organic Compounds by GC/MS		08/21/2012	08/21/2012
1208F35-001B	TK-SS-01	8/7/2012 5:57:00PM	Soil	PERCENT MOISTURE			08/24/2012
1208F35-002A	TK-SS-02	8/7/2012 6:16:00PM	Soil	Volatile Organic Compounds by GC/MS		08/21/2012	08/21/2012
1208F35-002B	TK-SS-02	8/7/2012 6:16:00PM	Soil	PERCENT MOISTURE			08/24/2012
1208F35-003A	TK-SS-03	8/7/2012 6:25:00PM	Soil	Volatile Organic Compounds by GC/MS		08/21/2012	08/21/2012
1208F35-003B	TK-SS-03	8/7/2012 6:25:00PM	Soil	PERCENT MOISTURE			08/24/2012
1208F35-004A	TK-SS-04	8/7/2012 6:40:00PM	Soil	Volatile Organic Compounds by GC/MS		08/21/2012	08/21/2012
1208F35-004B	TK-SS-04	8/7/2012 6:40:00PM	Soil	PERCENT MOISTURE			08/24/2012
1208F35-005A	TK-SS-05	8/7/2012 6:50:00PM	Soil	Volatile Organic Compounds by GC/MS		08/21/2012	08/21/2012
1208F35-005B	TK-SS-05	8/7/2012 6:50:00PM	Soil	PERCENT MOISTURE			08/24/2012
1208F35-006A	MASON BRANCH #2	8/7/2012 3:55:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/20/2012	08/21/2012
1208F35-007A	SEEP H	8/7/2012 4:15:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/20/2012	08/21/2012

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208F35

ANALYTICAL QC SUMMARY REPORT

BatchID: 165412

Sample ID: **MB-165412** Client ID: Units: **ug/L** Prep Date: **08/20/2012** Run No: **227328**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165412** Analysis Date: **08/20/2012** Seq No: **4758401**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	39.51	0	50	0	79	67.4	123	0	0	0	
Surr: Dibromofluoromethane	51.61	0	50	0	103	75.5	128	0	0	0	
Surr: Toluene-d8	42.82	0	50	0	85.6	70	120	0	0	0	

Sample ID: **LCS-165412** Client ID: Units: **ug/L** Prep Date: **08/20/2012** Run No: **227328**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165412** Analysis Date: **08/20/2012** Seq No: **4758397**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	60.81	1.0	50	0	122	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	52.00	0	50	0	104	67.4	123	0	0	0	
Surr: Dibromofluoromethane	53.21	0	50	0	106	75.5	128	0	0	0	
Surr: Toluene-d8	51.86	0	50	0	104	70	120	0	0	0	

Sample ID: **1208C56-002AMS** Client ID: Units: **ug/L** Prep Date: **08/20/2012** Run No: **227328**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165412** Analysis Date: **08/20/2012** Seq No: **4758404**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	33280	500	25000	0	133	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	25890	0	25000	0	104	67.4	123	0	0	0	
Surr: Dibromofluoromethane	29140	0	25000	0	117	75.5	128	0	0	0	
Surr: Toluene-d8	24890	0	25000	0	99.5	70	120	0	0	0	

Sample ID: **1208C56-002AMSD** Client ID: Units: **ug/L** Prep Date: **08/20/2012** Run No: **227328**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165412** Analysis Date: **08/20/2012** Seq No: **4758406**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	32260	500	25000	0	129	68.3	149	33280	3.11	17.7	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208F35

ANALYTICAL QC SUMMARY REPORT

BatchID: 165412

Sample ID: **1208C56-002AMSD** Client ID:
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** Prep Date: **08/20/2012** Run No: **227328**
BatchID: **165412** Analysis Date: **08/20/2012** Seq No: **4758406**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	25890	0	25000	0	104	67.4	123	25890	0	0	
Surr: Dibromofluoromethane	28560	0	25000	0	114	75.5	128	29140	0	0	
Surr: Toluene-d8	23920	0	25000	0	95.7	70	120	24890	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208F35

ANALYTICAL QC SUMMARY REPORT

BatchID: 165440

Sample ID: **MB-165440** Client ID: Units: **ug/Kg** Prep Date: **08/21/2012** Run No: **227432**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165440** Analysis Date: **08/21/2012** Seq No: **4759993**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,3-Trichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dioxane	BRL	150	0	0	0	0	0	0	0	0	
2,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
4-Chlorotoluene	BRL	5.0	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208F35

ANALYTICAL QC SUMMARY REPORT

BatchID: 165440

Sample ID: **MB-165440** Client ID: Units: **ug/Kg** Prep Date: **08/21/2012** Run No: **227432**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165440** Analysis Date: **08/21/2012** Seq No: **4759993**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Hexachlorobutadiene	BRL	5.0	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	20	0	0	0	0	0	0	0	0	
Naphthalene	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	10	0	0	0	0	0	0	0	0	
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	50.06	0	50	0	100	56.5	134	0	0	0	
Surr: Dibromofluoromethane	48.15	0	50	0	96.3	71.8	135	0	0	0	
Surr: Toluene-d8	49.04	0	50	0	98.1	77.1	117	0	0	0	

Sample ID: **LCS-165440** Client ID: Units: **ug/Kg** Prep Date: **08/21/2012** Run No: **227432**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165440** Analysis Date: **08/21/2012** Seq No: **4759995**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	65.42	5.0	50	0	131	60	140	0	0	0	
Benzene	62.32	5.0	50	0	125	70	130	0	0	0	
Chlorobenzene	48.51	5.0	50	0	97	70	130	0	0	0	
Toluene	64.54	5.0	50	0	129	70	130	0	0	0	
Trichloroethene	63.53	5.0	50	0	127	70	130	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208F35

ANALYTICAL QC SUMMARY REPORT

BatchID: 165440

Sample ID: **LCS-165440** Client ID: Units: **ug/Kg** Prep Date: **08/21/2012** Run No: **227432**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165440** Analysis Date: **08/21/2012** Seq No: **4759995**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	53.19	0	50	0	106	56.5	134	0	0	0	
Surr: Dibromofluoromethane	50.26	0	50	0	101	71.8	135	0	0	0	
Surr: Toluene-d8	50.18	0	50	0	100	77.1	117	0	0	0	

Sample ID: **1208F35-001AMS** Client ID: **TK-SS-01** Units: **ug/Kg-dry** Prep Date: **08/21/2012** Run No: **227432**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165440** Analysis Date: **08/21/2012** Seq No: **4759996**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	66.92	5.8	58.33	0	115	51	159	0	0	0	
Benzene	69.28	5.8	58.33	0	119	67.6	139	0	0	0	
Chlorobenzene	53.14	5.8	58.33	0	91.1	73.6	135	0	0	0	
Toluene	70.04	5.8	58.33	0	120	63.5	140	0	0	0	
Trichloroethene	69.02	5.8	58.33	0	118	67.6	145	0	0	0	
Surr: 4-Bromofluorobenzene	60.68	0	58.33	0	104	56.5	134	0	0	0	
Surr: Dibromofluoromethane	58.18	0	58.33	0	99.7	71.8	135	0	0	0	
Surr: Toluene-d8	59.18	0	58.33	0	101	77.1	117	0	0	0	

Sample ID: **1208F35-001AMSD** Client ID: **TK-SS-01** Units: **ug/Kg-dry** Prep Date: **08/21/2012** Run No: **227432**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165440** Analysis Date: **08/21/2012** Seq No: **4759998**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	70.84	5.8	58.33	0	121	51	159	66.92	5.69	25.7	
Benzene	69.42	5.8	58.33	0	119	67.6	139	69.28	0.202	18.5	
Chlorobenzene	53.85	5.8	58.33	0	92.3	73.6	135	53.14	1.33	18.5	
Toluene	70.75	5.8	58.33	0	121	63.5	140	70.04	1.01	18.8	
Trichloroethene	70.85	5.8	58.33	0	121	67.6	145	69.02	2.62	20.7	
Surr: 4-Bromofluorobenzene	61.36	0	58.33	0	105	56.5	134	60.68	0	0	
Surr: Dibromofluoromethane	57.23	0	58.33	0	98.1	71.8	135	58.18	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1208F35

ANALYTICAL QC SUMMARY REPORT

BatchID: 165440

Sample ID: **1208F35-001AMSD** Client ID: **TK-SS-01** Units: **ug/Kg-dry** Prep Date: **08/21/2012** Run No: **227432**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **165440** Analysis Date: **08/21/2012** Seq No: **4759998**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Toluene-d8	58.58	0	58.33	0	100	77.1	117	59.18	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES
Analytical Environmental Services, Inc.,
3785 Presidential Parkway
Atlanta, GA 30340

Stipulation of Approval for Commercial Laboratory

According to Georgia State Law (O.C.G.A. 12-2-9) Commercial Rules for Commercial Laboratory Accreditation, any person submitting data to EPD prepared by a commercial laboratory shall stipulate that the laboratory is approved (Chapter 391-3-26-.05). The following information is provided as requested.

Laboratory	Analytical Environmental Services, Inc. (AES) 3785 Presidential Parkway, NE Atlanta, GA 30340 (770) 457-8177
Accredited By:	State of Florida, Department of Health, Bureau of Laboratories; Accrediting NELAP Authority
Accreditation ID:	E87582
Scope:	Clean Water Act – Extractable Organics, General Chemistry, Metals, Microbiology, Pesticides-Herbicides, PCBs, Volatile Organics RCRA/CERCLA – Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides, PCBs, Volatile Organics
Effective:	July 1, 2012
Expires:	June 30, 2013

I further certify that the sample(s) for which this data is being submitted has been handled pursuant to the appropriate chain of custody. Any question regarding this stipulation of approval may be directed to AES at 770 457-8177. Thank you for your business and please do not hesitate contacting us if we can be of further assistance.

Sincerely,

James Forrest
Director of Project Management

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

November 27, 2012

Rhonda Quinn
AMEC E&I, Inc.
1075 Big Shanty Road, NW, Suite 100
Kennesaw GA 30144

TEL: (770) 421-3400
FAX: (770) 421-3486

RE: Thermo King Louisville

Dear Rhonda Quinn: Order No: 1211G64

Analytical Environmental Services, Inc. received 9 samples on 11/20/2012 3:15:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck

Tara Esbeck
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1211G64

Date: 11-19-12 Page 1 of 1

COMPANY:	ADDRESS:
AMEC	1075 Big Shanty Rd #100 Kennesaw, GA 30144
PHONE: 770 421 3400	FAX:
SAMPLED BY: EVER GUILLEN	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED: VOCs + 1,4 Dioxane (8260B)	PRESERVATION (See codes)	REMARKS	No # of Containers
1	DUP-1	11-19-12	1200	X		GW	X		NOTE - VOCs	4
2	MANSON BRANCH - 2	11-19-12	1320	X		GW	X		SITE-SPECIFIC	4
3	SEEP - H	11-19-12	1335	X		GW	X		VOC LIST ONLY.	4
4	SEEP - G	11-19-12	1350	X		GW	X			4
5	SEEP - #2	11-19-12	1410	X		GW	X			4
6	SEEP - I	11-19-12	1500	X		GW	X			4
7	SEEP - L	11-19-12	1515	X		GW	X			4
8	SEEP - B	11-19-12	1535	X		GW	X			4
9	TRIP						X			2
10										
11										
12										
13										
14										

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11/20/12 / 1515	1:	11/20/12
2:		2:	15:15
3:		3:	

PROJECT INFORMATION

PROJECT NAME: TK LOUISVILLE

PROJECT #: 6122090322.201

SITE ADDRESS: LOUISVILLE, GA

SEND REPORT TO: RHONDA QUINN

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: _____ PO#: C012400941

RECEIPT

Total # of Containers

Turnaround Time Request

- [X] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush **(auth req.)**
- [ ] Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER_____

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 27-Nov-12

Client: AMEC E&I, Inc.
Project: Thermo King Louisville
Lab ID: 1211G64

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

Trichloroethene value for the QC samples 1211G64-001AMS/MSD are "E" qualified indicating estimated values over linear calibration range due to the level of target analyte present in the unspiked sample.

RPD value for 1,1-Dichloroethene on sample 1211G64-001AMSD was outside advisory control limits due to suspected non-homogeneous sample matrix. All percent recoveries were within control limits.

Analytical Environmental Services, Inc

Date: 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-1
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 12:00:00 PM
Lab ID:	1211G64-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**			**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,1,1-Trichloroethane	19	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,1-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,1-Dichloroethene	140	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,1-Dichloropropene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	169320	1	11/21/2012 18:46	JT
1,2-Dibromoethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,2-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,3-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
2,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
2-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
4-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
4-Isopropyltoluene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Benzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Bromobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Bromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Bromodichloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Bromoform	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Bromomethane	BRL	5.0		ug/L	169320	1	11/21/2012 18:46	JT
Carbon tetrachloride	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Chlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Chloroethane	BRL	5.0		ug/L	169320	1	11/21/2012 18:46	JT
Chloroform	2.4	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Chloromethane	BRL	5.0		ug/L	169320	1	11/21/2012 18:46	JT
cis-1,2-Dichloroethene	64	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Dibromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Dibromomethane	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 18:46	JT
Ethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Hexachlorobutadiene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-1
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 12:00:00 PM
Lab ID:	1211G64-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Isopropylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
m,p-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Methylene chloride	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
n-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
n-Propylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Naphthalene	BRL	5.0		ug/L	169320	1	11/21/2012 18:46	JT
o-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
sec-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Styrene	BRL	5.0		ug/L	169320	1	11/21/2012 18:46	JT
tert-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Tetrachloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Toluene	1.6	1.0		ug/L	169320	1	11/21/2012 18:46	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Trichloroethene	650	10		ug/L	169320	10	11/23/2012 20:04	JT
Trichlorofluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 18:46	JT
Vinyl chloride	BRL	1.0		ug/L	169320	1	11/21/2012 18:46	JT
Surr: 4-Bromofluorobenzene	94.1	64.6-123		%REC	169320	1	11/21/2012 18:46	JT
Surr: 4-Bromofluorobenzene	94.4	64.6-123		%REC	169320	10	11/23/2012 20:04	JT
Surr: Dibromofluoromethane	86.9	76.6-133		%REC	169320	10	11/23/2012 20:04	JT
Surr: Dibromofluoromethane	97.2	76.6-133		%REC	169320	1	11/21/2012 18:46	JT
Surr: Toluene-d8	85	77.8-120		%REC	169320	1	11/21/2012 18:46	JT
Surr: Toluene-d8	86.6	77.8-120		%REC	169320	10	11/23/2012 20:04	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	169389	1	11/26/2012 17:52	JT
Surr: 4-Bromofluorobenzene	101	70-130		%REC	169389	1	11/26/2012 17:52	JT
Surr: Dibromofluoromethane	102	70-130		%REC	169389	1	11/26/2012 17:52	JT
Surr: Toluene-d8	99.4	70-130		%REC	169389	1	11/26/2012 17:52	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MASON BRANCH-2
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 1:20:00 PM
Lab ID:	1211G64-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,1-Dichloroethane	6.9	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,1-Dichloroethene	20	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,1-Dichloropropene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	169320	1	11/21/2012 19:15	JT
1,2-Dibromoethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,2-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,3-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
2,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
2-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
4-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
4-Isopropyltoluene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Benzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Bromobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Bromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Bromodichloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Bromoform	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Bromomethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:15	JT
Carbon tetrachloride	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Chlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Chloroethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:15	JT
Chloroform	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Chloromethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:15	JT
cis-1,2-Dichloroethene	170	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Dibromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Dibromomethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:15	JT
Ethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Hexachlorobutadiene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MASON BRANCH-2
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 1:20:00 PM
Lab ID:	1211G64-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Isopropylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
m,p-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Methylene chloride	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
n-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
n-Propylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Naphthalene	BRL	5.0		ug/L	169320	1	11/21/2012 19:15	JT
o-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
sec-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Styrene	BRL	5.0		ug/L	169320	1	11/21/2012 19:15	JT
tert-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Tetrachloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Toluene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
trans-1,2-Dichloroethene	2.2	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Trichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Trichlorofluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:15	JT
Vinyl chloride	84	1.0		ug/L	169320	1	11/21/2012 19:15	JT
Surr: 4-Bromofluorobenzene	95.8	64.6-123		%REC	169320	1	11/21/2012 19:15	JT
Surr: Dibromofluoromethane	94.3	76.6-133		%REC	169320	1	11/21/2012 19:15	JT
Surr: Toluene-d8	84.3	77.8-120		%REC	169320	1	11/21/2012 19:15	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	169389	1	11/24/2012 01:45	JT
Surr: 4-Bromofluorobenzene	101	70-130		%REC	169389	1	11/24/2012 01:45	JT
Surr: Dibromofluoromethane	100	70-130		%REC	169389	1	11/24/2012 01:45	JT
Surr: Toluene-d8	98.4	70-130		%REC	169389	1	11/24/2012 01:45	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-H
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 1:35:00 PM
Lab ID:	1211G64-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,1,1-Trichloroethane	20	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,1-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,1-Dichloroethene	140	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,1-Dichloropropene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	169320	1	11/21/2012 19:45	JT
1,2-Dibromoethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,2-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,3-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
2,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
2-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
4-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
4-Isopropyltoluene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Benzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Bromobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Bromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Bromodichloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Bromoform	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Bromomethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:45	JT
Carbon tetrachloride	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Chlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Chloroethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:45	JT
Chloroform	2.3	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Chloromethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:45	JT
cis-1,2-Dichloroethene	64	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Dibromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Dibromomethane	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:45	JT
Ethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Hexachlorobutadiene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-H
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 1:35:00 PM
Lab ID:	1211G64-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Isopropylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
m,p-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Methylene chloride	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
n-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
n-Propylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Naphthalene	BRL	5.0		ug/L	169320	1	11/21/2012 19:45	JT
o-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
sec-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Styrene	BRL	5.0		ug/L	169320	1	11/21/2012 19:45	JT
tert-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Tetrachloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Toluene	1.6	1.0		ug/L	169320	1	11/21/2012 19:45	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Trichloroethene	550	10		ug/L	169320	10	11/23/2012 20:35	JT
Trichlorofluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 19:45	JT
Vinyl chloride	BRL	1.0		ug/L	169320	1	11/21/2012 19:45	JT
Surr: 4-Bromofluorobenzene	92.2	64.6-123		%REC	169320	10	11/23/2012 20:35	JT
Surr: 4-Bromofluorobenzene	94.3	64.6-123		%REC	169320	1	11/21/2012 19:45	JT
Surr: Dibromofluoromethane	85.9	76.6-133		%REC	169320	10	11/23/2012 20:35	JT
Surr: Dibromofluoromethane	94	76.6-133		%REC	169320	1	11/21/2012 19:45	JT
Surr: Toluene-d8	83.4	77.8-120		%REC	169320	1	11/21/2012 19:45	JT
Surr: Toluene-d8	86.2	77.8-120		%REC	169320	10	11/23/2012 20:35	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	169389	1	11/26/2012 18:20	JT
Surr: 4-Bromofluorobenzene	102	70-130		%REC	169389	1	11/26/2012 18:20	JT
Surr: Dibromofluoromethane	103	70-130		%REC	169389	1	11/26/2012 18:20	JT
Surr: Toluene-d8	98.9	70-130		%REC	169389	1	11/26/2012 18:20	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-G
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 1:50:00 PM
Lab ID:	1211G64-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,1-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,1-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,1-Dichloropropene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	169320	1	11/21/2012 20:15	JT
1,2-Dibromoethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,2-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,3-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
2,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
2-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
4-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
4-Isopropyltoluene	2.6	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Benzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Bromobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Bromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Bromodichloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Bromoform	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Bromomethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:15	JT
Carbon tetrachloride	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Chlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Chloroethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:15	JT
Chloroform	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Chloromethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:15	JT
cis-1,2-Dichloroethene	7.6	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Dibromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Dibromomethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:15	JT
Ethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Hexachlorobutadiene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-G
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 1:50:00 PM
Lab ID:	1211G64-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Isopropylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
m,p-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Methylene chloride	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
n-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
n-Propylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Naphthalene	BRL	5.0		ug/L	169320	1	11/21/2012 20:15	JT
o-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
sec-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Styrene	BRL	5.0		ug/L	169320	1	11/21/2012 20:15	JT
tert-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Tetrachloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Toluene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Trichloroethene	3.8	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Trichlorofluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:15	JT
Vinyl chloride	BRL	1.0		ug/L	169320	1	11/21/2012 20:15	JT
Surr: 4-Bromofluorobenzene	90.2	64.6-123		%REC	169320	1	11/21/2012 20:15	JT
Surr: Dibromofluoromethane	90.5	76.6-133		%REC	169320	1	11/21/2012 20:15	JT
Surr: Toluene-d8	82.7	77.8-120		%REC	169320	1	11/21/2012 20:15	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	169389	1	11/26/2012 15:33	JT
Surr: 4-Bromofluorobenzene	102	70-130		%REC	169389	1	11/26/2012 15:33	JT
Surr: Dibromofluoromethane	99.5	70-130		%REC	169389	1	11/26/2012 15:33	JT
Surr: Toluene-d8	99.7	70-130		%REC	169389	1	11/26/2012 15:33	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-#2
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 2:10:00 PM
Lab ID:	1211G64-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,1-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,1-Dichloroethene	3.7	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,1-Dichloropropene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	169320	1	11/21/2012 20:45	JT
1,2-Dibromoethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,2-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,3-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
2,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
2-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
4-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
4-Isopropyltoluene	2.1	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Benzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Bromobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Bromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Bromodichloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Bromoform	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Bromomethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:45	JT
Carbon tetrachloride	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Chlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Chloroethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:45	JT
Chloroform	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Chloromethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:45	JT
cis-1,2-Dichloroethene	23	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Dibromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Dibromomethane	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:45	JT
Ethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Hexachlorobutadiene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-#2
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 2:10:00 PM
Lab ID:	1211G64-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Isopropylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
m,p-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Methylene chloride	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
n-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
n-Propylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Naphthalene	BRL	5.0		ug/L	169320	1	11/21/2012 20:45	JT
o-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
sec-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Styrene	BRL	5.0		ug/L	169320	1	11/21/2012 20:45	JT
tert-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Tetrachloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Toluene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Trichloroethene	23	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Trichlorofluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 20:45	JT
Vinyl chloride	BRL	1.0		ug/L	169320	1	11/21/2012 20:45	JT
Surr: 4-Bromofluorobenzene	90.3	64.6-123		%REC	169320	1	11/21/2012 20:45	JT
Surr: Dibromofluoromethane	93.1	76.6-133		%REC	169320	1	11/21/2012 20:45	JT
Surr: Toluene-d8	85.1	77.8-120		%REC	169320	1	11/21/2012 20:45	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	169389	1	11/26/2012 16:01	JT
Surr: 4-Bromofluorobenzene	101	70-130		%REC	169389	1	11/26/2012 16:01	JT
Surr: Dibromofluoromethane	101	70-130		%REC	169389	1	11/26/2012 16:01	JT
Surr: Toluene-d8	100	70-130		%REC	169389	1	11/26/2012 16:01	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-I
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 3:00:00 PM
Lab ID:	1211G64-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,1-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,1-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,1-Dichloropropene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	169320	1	11/21/2012 21:14	JT
1,2-Dibromoethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,2-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,3-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
2,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
2-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
4-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
4-Isopropyltoluene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Benzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Bromobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Bromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Bromodichloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Bromoform	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Bromomethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:14	JT
Carbon tetrachloride	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Chlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Chloroethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:14	JT
Chloroform	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Chloromethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:14	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Dibromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Dibromomethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:14	JT
Ethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Hexachlorobutadiene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-I
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 3:00:00 PM
Lab ID:	1211G64-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Isopropylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
m,p-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Methylene chloride	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
n-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
n-Propylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Naphthalene	BRL	5.0		ug/L	169320	1	11/21/2012 21:14	JT
o-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
sec-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Styrene	BRL	5.0		ug/L	169320	1	11/21/2012 21:14	JT
tert-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Tetrachloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Toluene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Trichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Trichlorofluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:14	JT
Vinyl chloride	BRL	1.0		ug/L	169320	1	11/21/2012 21:14	JT
Surr: 4-Bromofluorobenzene	90.6	64.6-123		%REC	169320	1	11/21/2012 21:14	JT
Surr: Dibromofluoromethane	91.7	76.6-133		%REC	169320	1	11/21/2012 21:14	JT
Surr: Toluene-d8	82.9	77.8-120		%REC	169320	1	11/21/2012 21:14	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	169389	1	11/26/2012 16:29	JT
Surr: 4-Bromofluorobenzene	101	70-130		%REC	169389	1	11/26/2012 16:29	JT
Surr: Dibromofluoromethane	99.4	70-130		%REC	169389	1	11/26/2012 16:29	JT
Surr: Toluene-d8	101	70-130		%REC	169389	1	11/26/2012 16:29	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-L
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 3:15:00 PM
Lab ID:	1211G64-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,1-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,1-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,1-Dichloropropene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	169320	1	11/21/2012 21:44	JT
1,2-Dibromoethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,2-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,3-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
2,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
2-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
4-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
4-Isopropyltoluene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Benzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Bromobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Bromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Bromodichloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Bromoform	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Bromomethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:44	JT
Carbon tetrachloride	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Chlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Chloroethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:44	JT
Chloroform	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Chloromethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:44	JT
cis-1,2-Dichloroethene	2.0	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Dibromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Dibromomethane	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:44	JT
Ethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Hexachlorobutadiene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-L
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 3:15:00 PM
Lab ID:	1211G64-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Isopropylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
m,p-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Methylene chloride	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
n-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
n-Propylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Naphthalene	BRL	5.0		ug/L	169320	1	11/21/2012 21:44	JT
o-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
sec-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Styrene	BRL	5.0		ug/L	169320	1	11/21/2012 21:44	JT
tert-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Tetrachloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Toluene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Trichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Trichlorofluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 21:44	JT
Vinyl chloride	BRL	1.0		ug/L	169320	1	11/21/2012 21:44	JT
Surr: 4-Bromofluorobenzene	94.5	64.6-123		%REC	169320	1	11/21/2012 21:44	JT
Surr: Dibromofluoromethane	92.9	76.6-133		%REC	169320	1	11/21/2012 21:44	JT
Surr: Toluene-d8	81.1	77.8-120		%REC	169320	1	11/21/2012 21:44	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	169389	1	11/26/2012 16:56	JT
Surr: 4-Bromofluorobenzene	101	70-130		%REC	169389	1	11/26/2012 16:56	JT
Surr: Dibromofluoromethane	98.4	70-130		%REC	169389	1	11/26/2012 16:56	JT
Surr: Toluene-d8	98.5	70-130		%REC	169389	1	11/26/2012 16:56	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-B
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 3:35:00 PM
Lab ID:	1211G64-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,1-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,1-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,1-Dichloropropene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	169320	1	11/21/2012 22:13	JT
1,2-Dibromoethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,2-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,3-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
2,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
2-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
4-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
4-Isopropyltoluene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Benzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Bromobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Bromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Bromodichloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Bromoform	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Bromomethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:13	JT
Carbon tetrachloride	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Chlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Chloroethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:13	JT
Chloroform	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Chloromethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:13	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Dibromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Dibromomethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:13	JT
Ethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Hexachlorobutadiene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SEEP-B
Project Name:	Thermo King Louisville	**Collection Date:**	11/19/2012 3:35:00 PM
Lab ID:	1211G64-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Isopropylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
m,p-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Methylene chloride	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
n-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
n-Propylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Naphthalene	BRL	5.0		ug/L	169320	1	11/21/2012 22:13	JT
o-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
sec-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Styrene	BRL	5.0		ug/L	169320	1	11/21/2012 22:13	JT
tert-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Tetrachloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Toluene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Trichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Trichlorofluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:13	JT
Vinyl chloride	BRL	1.0		ug/L	169320	1	11/21/2012 22:13	JT
Surr: 4-Bromofluorobenzene	91.5	64.6-123		%REC	169320	1	11/21/2012 22:13	JT
Surr: Dibromofluoromethane	94.7	76.6-133		%REC	169320	1	11/21/2012 22:13	JT
Surr: Toluene-d8	83.2	77.8-120		%REC	169320	1	11/21/2012 22:13	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	169389	1	11/26/2012 17:24	JT
Surr: 4-Bromofluorobenzene	101	70-130		%REC	169389	1	11/26/2012 17:24	JT
Surr: Dibromofluoromethane	101	70-130		%REC	169389	1	11/26/2012 17:24	JT
Surr: Toluene-d8	101	70-130		%REC	169389	1	11/26/2012 17:24	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Thermo King Louisville	**Collection Date:**	11/20/2012
Lab ID:	1211G64-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,1,1-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,1,2,2-Tetrachloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,1,2-Trichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,1-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,1-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,1-Dichloropropene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,2,3-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,2,3-Trichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,2,4-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	169320	1	11/21/2012 22:43	JT
1,2-Dibromoethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,2-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,2-Dichloroethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,3,5-Trimethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,3-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,3-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
1,4-Dichlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
2,2-Dichloropropane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
2-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
4-Chlorotoluene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
4-Isopropyltoluene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Benzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Bromobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Bromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Bromodichloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Bromoform	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Bromomethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:43	JT
Carbon tetrachloride	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Chlorobenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Chloroethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:43	JT
Chloroform	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Chloromethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:43	JT
cis-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Dibromochloromethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Dibromomethane	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Dichlorodifluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:43	JT
Ethylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Hexachlorobutadiene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Nov-12

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Thermo King Louisville	**Collection Date:**	11/20/2012
Lab ID:	1211G64-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Isopropylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
m,p-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Methylene chloride	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
n-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
n-Propylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Naphthalene	BRL	5.0		ug/L	169320	1	11/21/2012 22:43	JT
o-Xylene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
sec-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Styrene	BRL	5.0		ug/L	169320	1	11/21/2012 22:43	JT
tert-Butylbenzene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Tetrachloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Toluene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
trans-1,2-Dichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Trichloroethene	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Trichlorofluoromethane	BRL	5.0		ug/L	169320	1	11/21/2012 22:43	JT
Vinyl chloride	BRL	1.0		ug/L	169320	1	11/21/2012 22:43	JT
Surr: 4-Bromofluorobenzene	88.1	64.6-123		%REC	169320	1	11/21/2012 22:43	JT
Surr: Dibromofluoromethane	95.7	76.6-133		%REC	169320	1	11/21/2012 22:43	JT
Surr: Toluene-d8	84.7	77.8-120		%REC	169320	1	11/21/2012 22:43	JT
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	169389	1	11/23/2012 23:27	JT
Surr: 4-Bromofluorobenzene	100	70-130		%REC	169389	1	11/23/2012 23:27	JT
Surr: Dibromofluoromethane	99.1	70-130		%REC	169389	1	11/23/2012 23:27	JT
Surr: Toluene-d8	98.6	70-130		%REC	169389	1	11/23/2012 23:27	JT

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AMEC Work Order Number 1211G64

Checklist completed by BMTH 11/21/12
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.8 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1211G64

ANALYTICAL QC SUMMARY REPORT

BatchID: 169320

Sample ID: **MB-169320** Client ID: Units: **ug/L** Prep Date: **11/21/2012** Run No: **233480**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **169320** Analysis Date: **11/21/2012** Seq No: **4889454**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,1-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	
1,1-Dichloropropene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,3-Trichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2,4-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,3,5-Trimethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
1,3-Dichloropropane	BRL	1.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
2,2-Dichloropropane	BRL	2.0	0	0	0	0	0	0	0	0	
2-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Chlorotoluene	BRL	1.0	0	0	0	0	0	0	0	0	
4-Isopropyltoluene	BRL	2.0	0	0	0	0	0	0	0	0	
Benzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1211G64

ANALYTICAL QC SUMMARY REPORT

BatchID: 169320

Sample ID: **MB-169320** Client ID: Units: **ug/L** Prep Date: **11/21/2012** Run No: **233480**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **169320** Analysis Date: **11/21/2012** Seq No: **4889454**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromodichloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	1.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	2.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	1.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dibromomethane	BRL	1.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Hexachlorobutadiene	BRL	1.0	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
n-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
n-Propylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Naphthalene	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
sec-Butylbenzene	BRL	2.0	0	0	0	0	0	0	0	0	
Styrene	BRL	1.0	0	0	0	0	0	0	0	0	
tert-Butylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Toluene	BRL	1.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	2.0	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1211G64

ANALYTICAL QC SUMMARY REPORT

BatchID: 169320

Sample ID: **MB-169320**	Client ID:			Units: **ug/L**	Prep Date: **11/21/2012**	Run No: **233480**
SampleType: **MBLK**	TestCode: **Volatile Organic Compounds by GC/MS**	**SW8260B**		BatchID: **169320**	Analysis Date: **11/21/2012**	Seq No: **4889454**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	BRL	1.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	1.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	1.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	47.48	0	50	0	95	64.6	123	0	0	0	
Surr: Dibromofluoromethane	45.26	0	50	0	90.5	76.6	133	0	0	0	
Surr: Toluene-d8	43.47	0	50	0	86.9	77.8	120	0	0	0	

Sample ID: **LCS-169320**	Client ID:			Units: **ug/L**	Prep Date: **11/21/2012**	Run No: **233480**
SampleType: **LCS**	TestCode: **Volatile Organic Compounds by GC/MS**	**SW8260B**		BatchID: **169320**	Analysis Date: **11/21/2012**	Seq No: **4889453**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	44.26	2.0	50	0	88.5	60	140	0	0	0	
Benzene	46.98	1.0	50	0	94	70	130	0	0	0	
Chlorobenzene	44.16	1.0	50	0	88.3	70	130	0	0	0	
Toluene	47.28	1.0	50	0	94.6	70	130	0	0	0	
Trichloroethene	47.53	1.0	50	0	95.1	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	50.59	0	50	0	101	64.6	123	0	0	0	
Surr: Dibromofluoromethane	45.85	0	50	0	91.7	76.6	133	0	0	0	
Surr: Toluene-d8	45.05	0	50	0	90.1	77.8	120	0	0	0	

Sample ID: **1211G64-001AMS**	Client ID: **DUP-1**			Units: **ug/L**	Prep Date: **11/21/2012**	Run No: **233595**
SampleType: **MS**	TestCode: **Volatile Organic Compounds by GC/MS**	**SW8260B**		BatchID: **169320**	Analysis Date: **11/23/2012**	Seq No: **4891632**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	154.2	2.0	50	139.4	29.5	50.1	179	0	0	0	S
Benzene	46.30	1.0	50	0	92.6	61.2	150	0	0	0	
Chlorobenzene	43.83	1.0	50	0	87.7	72.1	140	0	0	0	
Toluene	46.56	1.0	50	1.650	89.8	58.7	154	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1211G64

ANALYTICAL QC SUMMARY REPORT

BatchID: 169320

Sample ID: **1211G64-001AMS** Client ID: **DUP-1** Units: **ug/L** Prep Date: **11/21/2012** Run No: **233595**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **169320** Analysis Date: **11/23/2012** Seq No: **4891632**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	651.8	1.0	50	728.4	-153	68.3	149	0	0	0	SE
Surr: 4-Bromofluorobenzene	51.66	0	50	0	103	64.6	123	0	0	0	
Surr: Dibromofluoromethane	43.55	0	50	0	87.1	76.6	133	0	0	0	
Surr: Toluene-d8	44.17	0	50	0	88.3	77.8	120	0	0	0	

Sample ID: **1211G64-001AMSD** Client ID: **DUP-1** Units: **ug/L** Prep Date: **11/21/2012** Run No: **233595**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **169320** Analysis Date: **11/23/2012** Seq No: **4891633**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	114.0	2.0	50	139.4	-50.9	50.1	179	154.2	30	23.3	SR
Benzene	45.92	1.0	50	0	91.8	61.2	150	46.30	0.824	19	
Chlorobenzene	43.52	1.0	50	0	87	72.1	140	43.83	0.71	21.5	
Toluene	46.59	1.0	50	1.650	89.9	58.7	154	46.56	0.064	20	
Trichloroethene	655.0	1.0	50	728.4	-147	68.3	149	651.8	0.491	17.7	SE
Surr: 4-Bromofluorobenzene	52.53	0	50	0	105	64.6	123	51.66	0	0	
Surr: Dibromofluoromethane	45.41	0	50	0	90.8	76.6	133	43.55	0	0	
Surr: Toluene-d8	45.25	0	50	0	90.5	77.8	120	44.17	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1211G64

ANALYTICAL QC SUMMARY REPORT

BatchID: 169389

Sample ID: **MB-169389**	Client ID:				Units: **ug/L**		Prep Date: **11/23/2012**		Run No: **233591**	
SampleType: **MBLK**	TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**				BatchID: **169389**		Analysis Date: **11/23/2012**		Seq No: **4891534**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,4-Dioxane	BRL	5.0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	50.63	0	50	0	101	70	130	0	0	0
Surr: Dibromofluoromethane	50.83	0	50	0	102	70	130	0	0	0
Surr: Toluene-d8	50.19	0	50	0	100	70	130	0	0	0

Sample ID: **LCS-169389**	Client ID:				Units: **ug/L**		Prep Date: **11/23/2012**		Run No: **233591**	
SampleType: **LCS**	TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**				BatchID: **169389**		Analysis Date: **11/23/2012**		Seq No: **4891533**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,4-Dioxane	9.840	5.0	10	0	98.4	70	130	0	0	0
Surr: 4-Bromofluorobenzene	50.00	0	50	0	100	70	130	0	0	0
Surr: Dibromofluoromethane	49.77	0	50	0	99.5	70	130	0	0	0
Surr: Toluene-d8	50.10	0	50	0	100	70	130	0	0	0

Sample ID: **1211G64-001AMS**	Client ID: **DUP-1**				Units: **ug/L**		Prep Date: **11/23/2012**		Run No: **233591**	
SampleType: **MS**	TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**				BatchID: **169389**		Analysis Date: **11/24/2012**		Seq No: **4891539**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,4-Dioxane	82.70	50	100	0	82.7	70	130	0	0	0
Surr: 4-Bromofluorobenzene	501.6	0	500	0	100	70	130	0	0	0
Surr: Dibromofluoromethane	489.5	0	500	0	97.9	70	130	0	0	0
Surr: Toluene-d8	504.2	0	500	0	101	70	130	0	0	0

Sample ID: **1211G64-001AMSD**	Client ID: **DUP-1**				Units: **ug/L**		Prep Date: **11/23/2012**		Run No: **233591**	
SampleType: **MSD**	TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**				BatchID: **169389**		Analysis Date: **11/24/2012**		Seq No: **4891541**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,4-Dioxane	100.6	50	100	0	101	70	130	82.70	19.5	20

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: AMEC E&I, Inc.
Project Name: Thermo King Louisville
Workorder: 1211G64

ANALYTICAL QC SUMMARY REPORT

BatchID: 169389

Sample ID: **1211G64-001AMSD** Client ID: **DUP-1** Units: **ug/L** Prep Date: **11/23/2012** Run No: **233591**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **169389** Analysis Date: **11/24/2012** Seq No: **4891541**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	510.0	0	500	0	102	70	130	501.6	0	0	
Surr: Dibromofluoromethane	498.7	0	500	0	99.7	70	130	489.5	0	0	
Surr: Toluene-d8	502.5	0	500	0	100	70	130	504.2	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES
Analytical Environmental Services, Inc.,
3785 Presidential Parkway
Atlanta, GA 30340

Stipulation of Approval for Commercial Laboratory

According to Georgia State Law (O.C.G.A. 12-2-9) Commercial Rules for Commercial Laboratory Accreditation, any person submitting data to EPD prepared by a commercial laboratory shall stipulate that the laboratory is approved (Chapter 391-3-26-.05). The following information is provided as requested.

Laboratory	Analytical Environmental Services, Inc. (AES) 3785 Presidential Parkway, NE Atlanta, GA 30340 (770) 457-8177
Accredited By:	State of Florida, Department of Health, Bureau of Laboratories; Accrediting NELAP Authority
Accreditation ID:	E87582
Scope:	Clean Water Act – Extractable Organics, General Chemistry, Metals, Microbiology, Pesticides-Herbicides, PCBs, Volatile Organics RCRA/CERCLA – Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides, PCBs, Volatile Organics
Effective:	July 1, 2012
Expires:	June 30, 2013

I further certify that the sample(s) for which this data is being submitted has been handled pursuant to the appropriate chain of custody. Any question regarding this stipulation of approval may be directed to AES at 770 457-8177. Thank you for your business and please do not hesitate contacting us if we can be of further assistance.

Sincerely,

James Forrest
Director of Project Management

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-19826-1
Client Project/Site: TK LOUISVILLE

For:
AMEC Environment & Infrastructure, Inc.
1075 Big Shanty Road, NW
Suite 100
Kennesaw, Georgia 30144

Attn: Ms. Rhonda Quinn

Patrick O'Meara

Authorized for release by:
1/23/2013 2:46:20 PM

Patrick O'Meara
Project Manager II
patrick.omeara@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-19826-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.

Project: TK LOUISVILLE

Report Number: 240-19826-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 01/12/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.6 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples MB-2 (240-19826-1), SEEP-H (240-19826-2), SEEP-G (240-19826-3), SEEP-2 (240-19826-4), SEEP-I (240-19826-5), SEEP-L (240-19826-6), SEEP-B (240-19826-7), DUP-1 (240-19826-8), MB-3 (240-19826-9), MB15 (240-19826-10), MB-5 (240-19826-11), MB-16 (240-19826-12), MW-28 (240-19826-13), MW-27 (240-19826-14), MW-25 (240-19826-15), EB-1 (240-19826-16), MW-20 (240-19826-17), MW-22 (240-19826-18), MW-14 (240-19826-19), MW-19 (240-19826-20), DUP-2 (240-19826-21), MW-10 (240-19826-22), MW-5 (240-19826-23), MW-3 (240-19826-24) and TRIP BLANK (240-19826-25) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 01/16/2013, 01/17/2013 and 01/18/2013.

Samples MB-2 (240-19826-1)[5X], SEEP-H (240-19826-2)[20X], DUP-1 (240-19826-8)[20X], MW-25 (240-19826-15)[125X], MW-20 (240-19826-17)[9.09X], MW-14 (240-19826-19)[100X], MW-19 (240-19826-20)[200X], DUP-2 (240-19826-21)[200X] and MW-5 (240-19826-23)[8X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

A MS/MSD was analyzed in batch 72267 but could not be reported because the associated sample was re-analyzed in a different batch.

No other difficulties were encountered during the VOCs analyses. All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS SIM)

Samples MW-28 (240-19826-13), MW-27 (240-19826-14), MW-25 (240-19826-15), MW-20 (240-19826-17), MW-14 (240-19826-19),

Job ID: 240-19826-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

MW-19 (240-19826-20) and MW-5 (240-19826-23) were analyzed for volatile organic compounds (GC-MS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 01/17/2013 and 01/18/2013.

Samples MW-25 (240-19826-15)[12.5X], MW-14 (240-19826-19)[10X] and MW-5 (240-19826-23)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following sample(s) was diluted due to the nature of the sample matrix: (240-19826-15 MS), (240-19826-15 MSD), MW-25 (240-19826-15). Elevated reporting limits (RLs) are provided.

The following sample(s) was diluted due to the nature of the sample matrix: (240-19826-19 MS), (240-19826-19 MSD), MW-14 (240-19826-19), MW-5 (240-19826-23). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the VOC SIM analyses. All quality control parameters were within the acceptance limits.

Method Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL NC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-19826-1	MB-2	Water	01/08/13 13:18	01/12/13 10:00
240-19826-2	SEEP-H	Water	01/08/13 13:30	01/12/13 10:00
240-19826-3	SEEP-G	Water	01/08/13 13:45	01/12/13 10:00
240-19826-4	SEEP-2	Water	01/08/13 13:55	01/12/13 10:00
240-19826-5	SEEP-I	Water	01/08/13 14:08	01/12/13 10:00
240-19826-6	SEEP-L	Water	01/08/13 14:18	01/12/13 10:00
240-19826-7	SEEP-B	Water	01/08/13 16:27	01/12/13 10:00
240-19826-8	DUP-1	Water	01/08/13 12:00	01/12/13 10:00
240-19826-9	MB-3	Water	01/08/13 15:25	01/12/13 10:00
240-19826-10	MB15	Water	01/08/13 15:38	01/12/13 10:00
240-19826-11	MB-5	Water	01/08/13 15:59	01/12/13 10:00
240-19826-12	MB-16	Water	01/08/13 16:12	01/12/13 10:00
240-19826-13	MW-28	Water	01/09/13 11:25	01/12/13 10:00
240-19826-14	MW-27	Water	01/09/13 12:16	01/12/13 10:00
240-19826-15	MW-25	Water	01/09/13 17:03	01/12/13 10:00
240-19826-16	EB-1	WQ	01/10/13 08:45	01/12/13 10:00
240-19826-17	MW-20	Water	01/10/13 13:12	01/12/13 10:00
240-19826-18	MW-22	Water	01/10/13 16:33	01/12/13 10:00
240-19826-19	MW-14	Water	01/09/13 11:55	01/12/13 10:00
240-19826-20	MW-19	Water	01/09/13 14:45	01/12/13 10:00
240-19826-21	DUP-2	Water	01/09/13 12:00	01/12/13 10:00
240-19826-22	MW-10	Water	01/10/13 11:15	01/12/13 10:00
240-19826-23	MW-5	Water	01/10/13 14:35	01/12/13 10:00
240-19826-24	MW-3	Water	01/10/13 17:25	01/12/13 10:00
240-19826-25	TRIP BLANK	WQ	01/08/13 00:00	01/12/13 10:00

Detection Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB-2 — Lab Sample ID: 240-19826-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	170		5.0		ug/L	5		8260B	Total/NA
1,1-Dichloroethane	8.2		5.0		ug/L	5		8260B	Total/NA
1,1-Dichloroethene	17		5.0		ug/L	5		8260B	Total/NA
Vinyl chloride	71		5.0		ug/L	5		8260B	Total/NA

Client Sample ID: SEEP-H — Lab Sample ID: 240-19826-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	47		20		ug/L	20		8260B	Total/NA
1,1-Dichloroethene	84		20		ug/L	20		8260B	Total/NA
Trichloroethene	610		20		ug/L	20		8260B	Total/NA

Client Sample ID: SEEP-G — Lab Sample ID: 240-19826-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	2.2		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	4.8		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP-2 — Lab Sample ID: 240-19826-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	21		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	4.6		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	26		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP-I — Lab Sample ID: 240-19826-5

No Detections

Client Sample ID: SEEP-L — Lab Sample ID: 240-19826-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5.9		1.0		ug/L	1		8260B	Total/NA
Vinyl chloride	1.3		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP-B — Lab Sample ID: 240-19826-7

No Detections

Client Sample ID: DUP-1 — Lab Sample ID: 240-19826-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	47		20		ug/L	20		8260B	Total/NA
1,1-Dichloroethene	84		20		ug/L	20		8260B	Total/NA
Trichloroethene	630		20		ug/L	20		8260B	Total/NA

Client Sample ID: MB-3 — Lab Sample ID: 240-19826-9

No Detections

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB15 — Lab Sample ID: 240-19826-10

No Detections

Client Sample ID: MB-5 — Lab Sample ID: 240-19826-11

No Detections

Client Sample ID: MB-16 — Lab Sample ID: 240-19826-12

No Detections

Client Sample ID: MW-28 — Lab Sample ID: 240-19826-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.7		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-27 — Lab Sample ID: 240-19826-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	9.2		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	2.9		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	13		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-25 — Lab Sample ID: 240-19826-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	860		130		ug/L	125		8260B	Total/NA
Trichloroethene	4300		130		ug/L	125		8260B	Total/NA

Client Sample ID: EB-1 — Lab Sample ID: 240-19826-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	12		1.0		ug/L	1		8260B	Total/NA
Methylene Chloride	3.5		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-20 — Lab Sample ID: 240-19826-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	320		9.1		ug/L	9.091		8260B	Total/NA

Client Sample ID: MW-22 — Lab Sample ID: 240-19826-18

No Detections

Client Sample ID: MW-14 — Lab Sample ID: 240-19826-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	310		100		ug/L	100		8260B	Total/NA
Trichloroethene	3400		100		ug/L	100		8260B	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 240-19826-20

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-19 (Continued) — Lab Sample ID: 240-19826-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	6400		200		ug/L	200		8260B	Total/NA

Client Sample ID: DUP-2 — Lab Sample ID: 240-19826-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	6200		200		ug/L	200		8260B	Total/NA

Client Sample ID: MW-10 — Lab Sample ID: 240-19826-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.1		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	2.5		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 240-19826-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	240		8.0		ug/L	8		8260B	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 240-19826-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.7		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	1.3		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-19826-25

No Detections

This Detection Summary does not include radiochemical test results.

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB-2
Date Collected: 01/08/13 13:18
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<5.0		5.0		ug/L			01/16/13 13:35	5
Bromobenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
Bromochloromethane	<5.0		5.0		ug/L			01/16/13 13:35	5
Bromodichloromethane	<5.0		5.0		ug/L			01/16/13 13:35	5
Bromoform	<5.0		5.0		ug/L			01/16/13 13:35	5
Bromomethane	<5.0		5.0		ug/L			01/16/13 13:35	5
Carbon tetrachloride	<5.0		5.0		ug/L			01/16/13 13:35	5
Chlorobenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
Chlorodibromomethane	<5.0		5.0		ug/L			01/16/13 13:35	5
Chloroethane	<5.0		5.0		ug/L			01/16/13 13:35	5
Chloroform	<5.0		5.0		ug/L			01/16/13 13:35	5
Chloromethane	<5.0		5.0		ug/L			01/16/13 13:35	5
2-Chlorotoluene	<5.0		5.0		ug/L			01/16/13 13:35	5
4-Chlorotoluene	<5.0		5.0		ug/L			01/16/13 13:35	5
cis-1,2-Dichloroethene	**170**		5.0		ug/L			01/16/13 13:35	5
1,2-Dibromo-3-Chloropropane	<10		10		ug/L			01/16/13 13:35	5
1,2-Dibromoethane	<5.0		5.0		ug/L			01/16/13 13:35	5
Dibromomethane	<5.0		5.0		ug/L			01/16/13 13:35	5
1,2-Dichlorobenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
1,3-Dichlorobenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
1,4-Dichlorobenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
Dichlorodifluoromethane	<5.0		5.0		ug/L			01/16/13 13:35	5
1,1-Dichloroethane	**8.2**		5.0		ug/L			01/16/13 13:35	5
1,2-Dichloroethane	<5.0		5.0		ug/L			01/16/13 13:35	5
1,1-Dichloroethene	**17**		5.0		ug/L			01/16/13 13:35	5
1,2-Dichloropropane	<5.0		5.0		ug/L			01/16/13 13:35	5
1,3-Dichloropropane	<5.0		5.0		ug/L			01/16/13 13:35	5
2,2-Dichloropropane	<5.0		5.0		ug/L			01/16/13 13:35	5
1,1-Dichloropropene	<5.0		5.0		ug/L			01/16/13 13:35	5
1,4-Dioxane	<250		250		ug/L			01/16/13 13:35	5
Ethylbenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
Hexachlorobutadiene	<5.0		5.0		ug/L			01/16/13 13:35	5
Isopropylbenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
Methylene Chloride	<5.0		5.0		ug/L			01/16/13 13:35	5
m-Xylene & p-Xylene	<10		10		ug/L			01/16/13 13:35	5
Naphthalene	<5.0		5.0		ug/L			01/16/13 13:35	5
n-Butylbenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
N-Propylbenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
o-Xylene	<5.0		5.0		ug/L			01/16/13 13:35	5
p-Isopropyltoluene	<5.0		5.0		ug/L			01/16/13 13:35	5
sec-Butylbenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
Styrene	<5.0		5.0		ug/L			01/16/13 13:35	5
tert-Butylbenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
1,1,1,2-Tetrachloroethane	<5.0		5.0		ug/L			01/16/13 13:35	5
1,1,2,2-Tetrachloroethane	<5.0		5.0		ug/L			01/16/13 13:35	5
Tetrachloroethene	<5.0		5.0		ug/L			01/16/13 13:35	5
Toluene	<5.0		5.0		ug/L			01/16/13 13:35	5
trans-1,2-Dichloroethene	<5.0		5.0		ug/L			01/16/13 13:35	5
1,2,3-Trichlorobenzene	<5.0		5.0		ug/L			01/16/13 13:35	5

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB-2
Date Collected: 01/08/13 13:18
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
1,1,1-Trichloroethane	<5.0		5.0		ug/L			01/16/13 13:35	5
1,1,2-Trichloroethane	<5.0		5.0		ug/L			01/16/13 13:35	5
Trichloroethene	<5.0		5.0		ug/L			01/16/13 13:35	5
Trichlorofluoromethane	<5.0		5.0		ug/L			01/16/13 13:35	5
1,2,3-Trichloropropane	<5.0		5.0		ug/L			01/16/13 13:35	5
1,2,4-Trimethylbenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
1,3,5-Trimethylbenzene	<5.0		5.0		ug/L			01/16/13 13:35	5
Vinyl chloride	**71**		5.0		ug/L			01/16/13 13:35	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*01/16/13 13:35*	*5*
Dibromofluoromethane (Surr)	*102*		*75 - 121*		*01/16/13 13:35*	*5*
1,2-Dichloroethane-d4 (Surr)	*91*		*63 - 129*		*01/16/13 13:35*	*5*
Toluene-d8 (Surr)	*92*		*74 - 115*		*01/16/13 13:35*	*5*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-H
Date Collected: 01/08/13 13:30
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<20		20		ug/L			01/17/13 19:23	20
Bromobenzene	<20		20		ug/L			01/17/13 19:23	20
Bromochloromethane	<20		20		ug/L			01/17/13 19:23	20
Bromodichloromethane	<20		20		ug/L			01/17/13 19:23	20
Bromoform	<20		20		ug/L			01/17/13 19:23	20
Bromomethane	<20		20		ug/L			01/17/13 19:23	20
Carbon tetrachloride	<20		20		ug/L			01/17/13 19:23	20
Chlorobenzene	<20		20		ug/L			01/17/13 19:23	20
Chlorodibromomethane	<20		20		ug/L			01/17/13 19:23	20
Chloroethane	<20		20		ug/L			01/17/13 19:23	20
Chloroform	<20		20		ug/L			01/17/13 19:23	20
Chloromethane	<20		20		ug/L			01/17/13 19:23	20
2-Chlorotoluene	<20		20		ug/L			01/17/13 19:23	20
4-Chlorotoluene	<20		20		ug/L			01/17/13 19:23	20
cis-1,2-Dichloroethene	**47**		20		ug/L			01/17/13 19:23	20
1,2-Dibromo-3-Chloropropane	<40		40		ug/L			01/17/13 19:23	20
1,2-Dibromoethane	<20		20		ug/L			01/17/13 19:23	20
Dibromomethane	<20		20		ug/L			01/17/13 19:23	20
1,2-Dichlorobenzene	<20		20		ug/L			01/17/13 19:23	20
1,3-Dichlorobenzene	<20		20		ug/L			01/17/13 19:23	20
1,4-Dichlorobenzene	<20		20		ug/L			01/17/13 19:23	20
Dichlorodifluoromethane	<20		20		ug/L			01/17/13 19:23	20
1,1-Dichloroethane	<20		20		ug/L			01/17/13 19:23	20
1,2-Dichloroethane	<20		20		ug/L			01/17/13 19:23	20
1,1-Dichloroethene	**84**		20		ug/L			01/17/13 19:23	20
1,2-Dichloropropane	<20		20		ug/L			01/17/13 19:23	20
1,3-Dichloropropane	<20		20		ug/L			01/17/13 19:23	20
2,2-Dichloropropane	<20		20		ug/L			01/17/13 19:23	20
1,1-Dichloropropene	<20		20		ug/L			01/17/13 19:23	20
1,4-Dioxane	<1000		1000		ug/L			01/17/13 19:23	20
Ethylbenzene	<20		20		ug/L			01/17/13 19:23	20
Hexachlorobutadiene	<20		20		ug/L			01/17/13 19:23	20
Isopropylbenzene	<20		20		ug/L			01/17/13 19:23	20
Methylene Chloride	<20		20		ug/L			01/17/13 19:23	20
m-Xylene & p-Xylene	<40		40		ug/L			01/17/13 19:23	20
Naphthalene	<20		20		ug/L			01/17/13 19:23	20
n-Butylbenzene	<20		20		ug/L			01/17/13 19:23	20
N-Propylbenzene	<20		20		ug/L			01/17/13 19:23	20
o-Xylene	<20		20		ug/L			01/17/13 19:23	20
p-Isopropyltoluene	<20		20		ug/L			01/17/13 19:23	20
sec-Butylbenzene	<20		20		ug/L			01/17/13 19:23	20
Styrene	<20		20		ug/L			01/17/13 19:23	20
tert-Butylbenzene	<20		20		ug/L			01/17/13 19:23	20
1,1,1,2-Tetrachloroethane	<20		20		ug/L			01/17/13 19:23	20
1,1,2,2-Tetrachloroethane	<20		20		ug/L			01/17/13 19:23	20
Tetrachloroethene	<20		20		ug/L			01/17/13 19:23	20
Toluene	<20		20		ug/L			01/17/13 19:23	20
trans-1,2-Dichloroethene	<20		20		ug/L			01/17/13 19:23	20
1,2,3-Trichlorobenzene	<20		20		ug/L			01/17/13 19:23	20

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-H
Date Collected: 01/08/13 13:30
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<20		20		ug/L			01/17/13 19:23	20
1,1,1-Trichloroethane	<20		20		ug/L			01/17/13 19:23	20
1,1,2-Trichloroethane	<20		20		ug/L			01/17/13 19:23	20
Trichloroethene	**610**		20		ug/L			01/17/13 19:23	20
Trichlorofluoromethane	<20		20		ug/L			01/17/13 19:23	20
1,2,3-Trichloropropane	<20		20		ug/L			01/17/13 19:23	20
1,2,4-Trimethylbenzene	<20		20		ug/L			01/17/13 19:23	20
1,3,5-Trimethylbenzene	<20		20		ug/L			01/17/13 19:23	20
Vinyl chloride	<20		20		ug/L			01/17/13 19:23	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*66 - 117*		*01/17/13 19:23*	*20*
Dibromofluoromethane (Surr)	*110*		*75 - 121*		*01/17/13 19:23*	*20*
1,2-Dichloroethane-d4 (Surr)	*101*		*63 - 129*		*01/17/13 19:23*	*20*
Toluene-d8 (Surr)	*96*		*74 - 115*		*01/17/13 19:23*	*20*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-G
Date Collected: 01/08/13 13:45
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 17:51	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 17:51	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 17:51	1
Bromoform	<1.0		1.0		ug/L			01/16/13 17:51	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 17:51	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 17:51	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 17:51	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 17:51	1
Chloroform	<1.0		1.0		ug/L			01/16/13 17:51	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 17:51	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 17:51	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 17:51	1
cis-1,2-Dichloroethene	**11**		1.0		ug/L			01/16/13 17:51	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 17:51	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 17:51	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,1-Dichloroethene	**2.2**		1.0		ug/L			01/16/13 17:51	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 17:51	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 17:51	1
1,4-Dioxane	<50		50		ug/L			01/16/13 17:51	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 17:51	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 17:51	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 17:51	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 17:51	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 17:51	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 17:51	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
Styrene	<1.0		1.0		ug/L			01/16/13 17:51	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 17:51	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 17:51	1
Toluene	<1.0		1.0		ug/L			01/16/13 17:51	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 17:51	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 17:51	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-G
Date Collected: 01/08/13 13:45
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 17:51	1
Trichloroethene	**4.8**		1.0		ug/L			01/16/13 17:51	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 17:51	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 17:51	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*66 - 117*		*01/16/13 17:51*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 121*		*01/16/13 17:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*63 - 129*		*01/16/13 17:51*	*1*
Toluene-d8 (Surr)	*93*		*74 - 115*		*01/16/13 17:51*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-2
Date Collected: 01/08/13 13:55
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 18:12	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 18:12	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 18:12	1
Bromoform	<1.0		1.0		ug/L			01/16/13 18:12	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 18:12	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 18:12	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 18:12	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 18:12	1
Chloroform	<1.0		1.0		ug/L			01/16/13 18:12	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 18:12	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 18:12	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 18:12	1
cis-1,2-Dichloroethene	**21**		1.0		ug/L			01/16/13 18:12	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 18:12	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 18:12	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,1-Dichloroethene	**4.6**		1.0		ug/L			01/16/13 18:12	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 18:12	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 18:12	1
1,4-Dioxane	<50		50		ug/L			01/16/13 18:12	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 18:12	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 18:12	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 18:12	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 18:12	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 18:12	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 18:12	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
Styrene	<1.0		1.0		ug/L			01/16/13 18:12	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 18:12	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 18:12	1
Toluene	<1.0		1.0		ug/L			01/16/13 18:12	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 18:12	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:12	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-2
Date Collected: 01/08/13 13:55
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 18:12	1
Trichloroethene	**26**		1.0		ug/L			01/16/13 18:12	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 18:12	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 18:12	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*01/16/13 18:12*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 121*		*01/16/13 18:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*63 - 129*		*01/16/13 18:12*	*1*
Toluene-d8 (Surr)	*93*		*74 - 115*		*01/16/13 18:12*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-I
Date Collected: 01/08/13 14:08
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 18:34	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 18:34	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 18:34	1
Bromoform	<1.0		1.0		ug/L			01/16/13 18:34	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 18:34	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 18:34	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 18:34	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 18:34	1
Chloroform	<1.0		1.0		ug/L			01/16/13 18:34	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 18:34	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 18:34	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 18:34	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 18:34	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 18:34	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 18:34	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 18:34	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 18:34	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 18:34	1
1,4-Dioxane	<50		50		ug/L			01/16/13 18:34	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 18:34	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 18:34	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 18:34	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 18:34	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 18:34	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 18:34	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
Styrene	<1.0		1.0		ug/L			01/16/13 18:34	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 18:34	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 18:34	1
Toluene	<1.0		1.0		ug/L			01/16/13 18:34	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 18:34	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:34	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-I
Date Collected: 01/08/13 14:08
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 18:34	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 18:34	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 18:34	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 18:34	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*66 - 117*		*01/16/13 18:34*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 121*		*01/16/13 18:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 129*		*01/16/13 18:34*	*1*
Toluene-d8 (Surr)	*90*		*74 - 115*		*01/16/13 18:34*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-L
Date Collected: 01/08/13 14:18
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 18:55	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 18:55	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 18:55	1
Bromoform	<1.0		1.0		ug/L			01/16/13 18:55	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 18:55	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 18:55	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 18:55	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 18:55	1
Chloroform	<1.0		1.0		ug/L			01/16/13 18:55	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 18:55	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 18:55	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 18:55	1
cis-1,2-Dichloroethene	**5.9**		1.0		ug/L			01/16/13 18:55	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 18:55	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 18:55	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 18:55	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 18:55	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 18:55	1
1,4-Dioxane	<50		50		ug/L			01/16/13 18:55	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 18:55	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 18:55	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 18:55	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 18:55	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 18:55	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 18:55	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
Styrene	<1.0		1.0		ug/L			01/16/13 18:55	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 18:55	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 18:55	1
Toluene	<1.0		1.0		ug/L			01/16/13 18:55	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 18:55	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:55	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-L
Date Collected: 01/08/13 14:18
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 18:55	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 18:55	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 18:55	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 18:55	1
Vinyl chloride	**1.3**		1.0		ug/L			01/16/13 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*01/16/13 18:55*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 121*		*01/16/13 18:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*63 - 129*		*01/16/13 18:55*	*1*
Toluene-d8 (Surr)	*90*		*74 - 115*		*01/16/13 18:55*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-B
Date Collected: 01/08/13 16:27
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 19:17	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 19:17	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 19:17	1
Bromoform	<1.0		1.0		ug/L			01/16/13 19:17	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 19:17	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 19:17	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 19:17	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 19:17	1
Chloroform	<1.0		1.0		ug/L			01/16/13 19:17	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 19:17	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 19:17	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 19:17	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 19:17	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 19:17	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 19:17	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 19:17	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 19:17	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 19:17	1
1,4-Dioxane	<50		50		ug/L			01/16/13 19:17	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 19:17	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 19:17	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 19:17	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 19:17	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 19:17	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 19:17	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
Styrene	<1.0		1.0		ug/L			01/16/13 19:17	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 19:17	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 19:17	1
Toluene	<1.0		1.0		ug/L			01/16/13 19:17	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 19:17	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:17	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: SEEP-B
Date Collected: 01/08/13 16:27
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 19:17	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 19:17	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 19:17	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 19:17	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*01/16/13 19:17*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 121*		*01/16/13 19:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*63 - 129*		*01/16/13 19:17*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*01/16/13 19:17*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: DUP-1
Date Collected: 01/08/13 12:00
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<20		20		ug/L			01/17/13 19:44	20
Bromobenzene	<20		20		ug/L			01/17/13 19:44	20
Bromochloromethane	<20		20		ug/L			01/17/13 19:44	20
Bromodichloromethane	<20		20		ug/L			01/17/13 19:44	20
Bromoform	<20		20		ug/L			01/17/13 19:44	20
Bromomethane	<20		20		ug/L			01/17/13 19:44	20
Carbon tetrachloride	<20		20		ug/L			01/17/13 19:44	20
Chlorobenzene	<20		20		ug/L			01/17/13 19:44	20
Chlorodibromomethane	<20		20		ug/L			01/17/13 19:44	20
Chloroethane	<20		20		ug/L			01/17/13 19:44	20
Chloroform	<20		20		ug/L			01/17/13 19:44	20
Chloromethane	<20		20		ug/L			01/17/13 19:44	20
2-Chlorotoluene	<20		20		ug/L			01/17/13 19:44	20
4-Chlorotoluene	<20		20		ug/L			01/17/13 19:44	20
cis-1,2-Dichloroethene	**47**		20		ug/L			01/17/13 19:44	20
1,2-Dibromo-3-Chloropropane	<40		40		ug/L			01/17/13 19:44	20
1,2-Dibromoethane	<20		20		ug/L			01/17/13 19:44	20
Dibromomethane	<20		20		ug/L			01/17/13 19:44	20
1,2-Dichlorobenzene	<20		20		ug/L			01/17/13 19:44	20
1,3-Dichlorobenzene	<20		20		ug/L			01/17/13 19:44	20
1,4-Dichlorobenzene	<20		20		ug/L			01/17/13 19:44	20
Dichlorodifluoromethane	<20		20		ug/L			01/17/13 19:44	20
1,1-Dichloroethane	<20		20		ug/L			01/17/13 19:44	20
1,2-Dichloroethane	<20		20		ug/L			01/17/13 19:44	20
1,1-Dichloroethene	**84**		20		ug/L			01/17/13 19:44	20
1,2-Dichloropropane	<20		20		ug/L			01/17/13 19:44	20
1,3-Dichloropropane	<20		20		ug/L			01/17/13 19:44	20
2,2-Dichloropropane	<20		20		ug/L			01/17/13 19:44	20
1,1-Dichloropropene	<20		20		ug/L			01/17/13 19:44	20
1,4-Dioxane	<1000		1000		ug/L			01/17/13 19:44	20
Ethylbenzene	<20		20		ug/L			01/17/13 19:44	20
Hexachlorobutadiene	<20		20		ug/L			01/17/13 19:44	20
Isopropylbenzene	<20		20		ug/L			01/17/13 19:44	20
Methylene Chloride	<20		20		ug/L			01/17/13 19:44	20
m-Xylene & p-Xylene	<40		40		ug/L			01/17/13 19:44	20
Naphthalene	<20		20		ug/L			01/17/13 19:44	20
n-Butylbenzene	<20		20		ug/L			01/17/13 19:44	20
N-Propylbenzene	<20		20		ug/L			01/17/13 19:44	20
o-Xylene	<20		20		ug/L			01/17/13 19:44	20
p-Isopropyltoluene	<20		20		ug/L			01/17/13 19:44	20
sec-Butylbenzene	<20		20		ug/L			01/17/13 19:44	20
Styrene	<20		20		ug/L			01/17/13 19:44	20
tert-Butylbenzene	<20		20		ug/L			01/17/13 19:44	20
1,1,1,2-Tetrachloroethane	<20		20		ug/L			01/17/13 19:44	20
1,1,2,2-Tetrachloroethane	<20		20		ug/L			01/17/13 19:44	20
Tetrachloroethene	<20		20		ug/L			01/17/13 19:44	20
Toluene	<20		20		ug/L			01/17/13 19:44	20
trans-1,2-Dichloroethene	<20		20		ug/L			01/17/13 19:44	20
1,2,3-Trichlorobenzene	<20		20		ug/L			01/17/13 19:44	20

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: DUP-1
Date Collected: 01/08/13 12:00
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<20		20		ug/L			01/17/13 19:44	20
1,1,1-Trichloroethane	<20		20		ug/L			01/17/13 19:44	20
1,1,2-Trichloroethane	<20		20		ug/L			01/17/13 19:44	20
Trichloroethene	**630**		20		ug/L			01/17/13 19:44	20
Trichlorofluoromethane	<20		20		ug/L			01/17/13 19:44	20
1,2,3-Trichloropropane	<20		20		ug/L			01/17/13 19:44	20
1,2,4-Trimethylbenzene	<20		20		ug/L			01/17/13 19:44	20
1,3,5-Trimethylbenzene	<20		20		ug/L			01/17/13 19:44	20
Vinyl chloride	<20		20		ug/L			01/17/13 19:44	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*66 - 117*		*01/17/13 19:44*	*20*
Dibromofluoromethane (Surr)	*106*		*75 - 121*		*01/17/13 19:44*	*20*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*		*01/17/13 19:44*	*20*
Toluene-d8 (Surr)	*94*		*74 - 115*		*01/17/13 19:44*	*20*

Client Sample ID: MB-3
Date Collected: 01/08/13 15:25
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 20:00	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 20:00	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 20:00	1
Bromoform	<1.0		1.0		ug/L			01/16/13 20:00	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 20:00	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 20:00	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 20:00	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 20:00	1
Chloroform	<1.0		1.0		ug/L			01/16/13 20:00	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 20:00	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 20:00	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 20:00	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:00	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 20:00	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 20:00	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:00	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:00	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 20:00	1
1,4-Dioxane	<50		50		ug/L			01/16/13 20:00	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 20:00	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 20:00	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 20:00	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 20:00	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 20:00	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 20:00	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
Styrene	<1.0		1.0		ug/L			01/16/13 20:00	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 20:00	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 20:00	1
Toluene	<1.0		1.0		ug/L			01/16/13 20:00	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:00	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:00	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB-3
Date Collected: 01/08/13 15:25
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 20:00	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 20:00	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 20:00	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 20:00	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*01/16/13 20:00*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 121*		*01/16/13 20:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 129*		*01/16/13 20:00*	*1*
Toluene-d8 (Surr)	*91*		*74 - 115*		*01/16/13 20:00*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB15
Date Collected: 01/08/13 15:38
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 20:21	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 20:21	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 20:21	1
Bromoform	<1.0		1.0		ug/L			01/16/13 20:21	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 20:21	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 20:21	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 20:21	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 20:21	1
Chloroform	<1.0		1.0		ug/L			01/16/13 20:21	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 20:21	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 20:21	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 20:21	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:21	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 20:21	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 20:21	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:21	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:21	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 20:21	1
1,4-Dioxane	<50		50		ug/L			01/16/13 20:21	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 20:21	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 20:21	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 20:21	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 20:21	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 20:21	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 20:21	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
Styrene	<1.0		1.0		ug/L			01/16/13 20:21	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 20:21	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 20:21	1
Toluene	<1.0		1.0		ug/L			01/16/13 20:21	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:21	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:21	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB15
Date Collected: 01/08/13 15:38
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 20:21	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 20:21	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 20:21	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 20:21	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*01/16/13 20:21*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 121*		*01/16/13 20:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*63 - 129*		*01/16/13 20:21*	*1*
Toluene-d8 (Surr)	*91*		*74 - 115*		*01/16/13 20:21*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB-5
Date Collected: 01/08/13 15:59
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 20:42	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 20:42	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 20:42	1
Bromoform	<1.0		1.0		ug/L			01/16/13 20:42	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 20:42	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 20:42	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 20:42	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 20:42	1
Chloroform	<1.0		1.0		ug/L			01/16/13 20:42	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 20:42	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 20:42	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 20:42	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:42	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 20:42	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 20:42	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:42	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:42	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 20:42	1
1,4-Dioxane	<50		50		ug/L			01/16/13 20:42	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 20:42	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 20:42	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 20:42	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 20:42	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 20:42	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 20:42	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
Styrene	<1.0		1.0		ug/L			01/16/13 20:42	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 20:42	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 20:42	1
Toluene	<1.0		1.0		ug/L			01/16/13 20:42	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:42	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:42	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB-5
Date Collected: 01/08/13 15:59
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 20:42	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 20:42	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 20:42	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 20:42	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*01/16/13 20:42*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 121*		*01/16/13 20:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 129*		*01/16/13 20:42*	*1*
Toluene-d8 (Surr)	*92*		*74 - 115*		*01/16/13 20:42*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB-16
Date Collected: 01/08/13 16:12
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-12
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 21:03	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 21:03	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 21:03	1
Bromoform	<1.0		1.0		ug/L			01/16/13 21:03	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 21:03	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 21:03	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 21:03	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 21:03	1
Chloroform	<1.0		1.0		ug/L			01/16/13 21:03	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 21:03	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 21:03	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 21:03	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 21:03	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 21:03	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 21:03	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 21:03	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 21:03	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 21:03	1
1,4-Dioxane	<50		50		ug/L			01/16/13 21:03	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 21:03	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 21:03	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 21:03	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 21:03	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 21:03	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 21:03	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
Styrene	<1.0		1.0		ug/L			01/16/13 21:03	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 21:03	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 21:03	1
Toluene	<1.0		1.0		ug/L			01/16/13 21:03	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 21:03	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 21:03	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB-16
Date Collected: 01/08/13 16:12
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-12
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 21:03	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 21:03	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 21:03	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 21:03	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*66 - 117*		*01/16/13 21:03*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 121*		*01/16/13 21:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*63 - 129*		*01/16/13 21:03*	*1*
Toluene-d8 (Surr)	*91*		*74 - 115*		*01/16/13 21:03*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-28
Date Collected: 01/09/13 11:25
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-13
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			01/18/13 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*79*		*74 - 120*		*01/18/13 14:37*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 19:37	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 19:37	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 19:37	1
Bromoform	<1.0		1.0		ug/L			01/16/13 19:37	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 19:37	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 19:37	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 19:37	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 19:37	1
Chloroform	<1.0		1.0		ug/L			01/16/13 19:37	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 19:37	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 19:37	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 19:37	1
cis-1,2-Dichloroethene	**4.7**		1.0		ug/L			01/16/13 19:37	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 19:37	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 19:37	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 19:37	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 19:37	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 19:37	1
1,4-Dioxane	<50		50		ug/L			01/16/13 19:37	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 19:37	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 19:37	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 19:37	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 19:37	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 19:37	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 19:37	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
Styrene	<1.0		1.0		ug/L			01/16/13 19:37	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 19:37	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-28
Date Collected: 01/09/13 11:25
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-13
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 19:37	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 19:37	1
Toluene	<1.0		1.0		ug/L			01/16/13 19:37	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 19:37	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 19:37	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 19:37	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 19:37	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 19:37	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*66 - 117*		*01/16/13 19:37*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 121*		*01/16/13 19:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*63 - 129*		*01/16/13 19:37*	*1*
Toluene-d8 (Surr)	*85*		*74 - 115*		*01/16/13 19:37*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-27
Date Collected: 01/09/13 12:16
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-14
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			01/18/13 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*74 - 120*		*01/18/13 15:01*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 19:59	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 19:59	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 19:59	1
Bromoform	<1.0		1.0		ug/L			01/16/13 19:59	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 19:59	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 19:59	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 19:59	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 19:59	1
Chloroform	<1.0		1.0		ug/L			01/16/13 19:59	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 19:59	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 19:59	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 19:59	1
cis-1,2-Dichloroethene	**9.2**		1.0		ug/L			01/16/13 19:59	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 19:59	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 19:59	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,1-Dichloroethene	**2.9**		1.0		ug/L			01/16/13 19:59	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 19:59	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 19:59	1
1,4-Dioxane	<50		50		ug/L			01/16/13 19:59	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 19:59	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 19:59	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 19:59	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 19:59	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 19:59	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 19:59	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
Styrene	<1.0		1.0		ug/L			01/16/13 19:59	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 19:59	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-27
Date Collected: 01/09/13 12:16
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-14
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 19:59	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 19:59	1
Toluene	<1.0		1.0		ug/L			01/16/13 19:59	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 19:59	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 19:59	1
Trichloroethene	**13**		1.0		ug/L			01/16/13 19:59	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 19:59	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 19:59	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*66 - 117*		*01/16/13 19:59*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 121*		*01/16/13 19:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*63 - 129*		*01/16/13 19:59*	*1*
Toluene-d8 (Surr)	*91*		*74 - 115*		*01/16/13 19:59*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-25
Date Collected: 01/09/13 17:03
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-15
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<25		25		ug/L			01/17/13 13:43	12.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*74 - 120*		*01/17/13 13:43*	*12.5*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<130		130		ug/L			01/17/13 20:05	125
Bromobenzene	<130		130		ug/L			01/17/13 20:05	125
Bromochloromethane	<130		130		ug/L			01/17/13 20:05	125
Bromodichloromethane	<130		130		ug/L			01/17/13 20:05	125
Bromoform	<130		130		ug/L			01/17/13 20:05	125
Bromomethane	<130		130		ug/L			01/17/13 20:05	125
Carbon tetrachloride	<130		130		ug/L			01/17/13 20:05	125
Chlorobenzene	<130		130		ug/L			01/17/13 20:05	125
Chlorodibromomethane	<130		130		ug/L			01/17/13 20:05	125
Chloroethane	<130		130		ug/L			01/17/13 20:05	125
Chloroform	<130		130		ug/L			01/17/13 20:05	125
Chloromethane	<130		130		ug/L			01/17/13 20:05	125
2-Chlorotoluene	<130		130		ug/L			01/17/13 20:05	125
4-Chlorotoluene	<130		130		ug/L			01/17/13 20:05	125
cis-1,2-Dichloroethene	**860**		130		ug/L			01/17/13 20:05	125
1,2-Dibromo-3-Chloropropane	<250		250		ug/L			01/17/13 20:05	125
1,2-Dibromoethane	<130		130		ug/L			01/17/13 20:05	125
Dibromomethane	<130		130		ug/L			01/17/13 20:05	125
1,2-Dichlorobenzene	<130		130		ug/L			01/17/13 20:05	125
1,3-Dichlorobenzene	<130		130		ug/L			01/17/13 20:05	125
1,4-Dichlorobenzene	<130		130		ug/L			01/17/13 20:05	125
Dichlorodifluoromethane	<130		130		ug/L			01/17/13 20:05	125
1,1-Dichloroethane	<130		130		ug/L			01/17/13 20:05	125
1,2-Dichloroethane	<130		130		ug/L			01/17/13 20:05	125
1,1-Dichloroethene	<130		130		ug/L			01/17/13 20:05	125
1,2-Dichloropropane	<130		130		ug/L			01/17/13 20:05	125
1,3-Dichloropropane	<130		130		ug/L			01/17/13 20:05	125
2,2-Dichloropropane	<130		130		ug/L			01/17/13 20:05	125
1,1-Dichloropropene	<130		130		ug/L			01/17/13 20:05	125
1,4-Dioxane	<6300		6300		ug/L			01/17/13 20:05	125
Ethylbenzene	<130		130		ug/L			01/17/13 20:05	125
Hexachlorobutadiene	<130		130		ug/L			01/17/13 20:05	125
Isopropylbenzene	<130		130		ug/L			01/17/13 20:05	125
Methylene Chloride	<130		130		ug/L			01/17/13 20:05	125
m-Xylene & p-Xylene	<250		250		ug/L			01/17/13 20:05	125
Naphthalene	<130		130		ug/L			01/17/13 20:05	125
n-Butylbenzene	<130		130		ug/L			01/17/13 20:05	125
N-Propylbenzene	<130		130		ug/L			01/17/13 20:05	125
o-Xylene	<130		130		ug/L			01/17/13 20:05	125
p-Isopropyltoluene	<130		130		ug/L			01/17/13 20:05	125
sec-Butylbenzene	<130		130		ug/L			01/17/13 20:05	125
Styrene	<130		130		ug/L			01/17/13 20:05	125
tert-Butylbenzene	<130		130		ug/L			01/17/13 20:05	125

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-25
Date Collected: 01/09/13 17:03
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-15
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<130		130		ug/L			01/17/13 20:05	125
1,1,2,2-Tetrachloroethane	<130		130		ug/L			01/17/13 20:05	125
Tetrachloroethene	<130		130		ug/L			01/17/13 20:05	125
Toluene	<130		130		ug/L			01/17/13 20:05	125
trans-1,2-Dichloroethene	<130		130		ug/L			01/17/13 20:05	125
1,2,3-Trichlorobenzene	<130		130		ug/L			01/17/13 20:05	125
1,2,4-Trichlorobenzene	<130		130		ug/L			01/17/13 20:05	125
1,1,1-Trichloroethane	<130		130		ug/L			01/17/13 20:05	125
1,1,2-Trichloroethane	<130		130		ug/L			01/17/13 20:05	125
Trichloroethene	**4300**		130		ug/L			01/17/13 20:05	125
Trichlorofluoromethane	<130		130		ug/L			01/17/13 20:05	125
1,2,3-Trichloropropane	<130		130		ug/L			01/17/13 20:05	125
1,2,4-Trimethylbenzene	<130		130		ug/L			01/17/13 20:05	125
1,3,5-Trimethylbenzene	<130		130		ug/L			01/17/13 20:05	125
Vinyl chloride	<130		130		ug/L			01/17/13 20:05	125

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*01/17/13 20:05*	*125*
Dibromofluoromethane (Surr)	*107*		*75 - 121*		*01/17/13 20:05*	*125*
1,2-Dichloroethane-d4 (Surr)	*99*		*63 - 129*		*01/17/13 20:05*	*125*
Toluene-d8 (Surr)	*95*		*74 - 115*		*01/17/13 20:05*	*125*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: EB-1
Date Collected: 01/10/13 08:45
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-16
Matrix: WQ

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 20:44	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 20:44	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 20:44	1
Bromoform	<1.0		1.0		ug/L			01/16/13 20:44	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 20:44	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 20:44	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 20:44	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 20:44	1
Chloroform	**12**		1.0		ug/L			01/16/13 20:44	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 20:44	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 20:44	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 20:44	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:44	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 20:44	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 20:44	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:44	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:44	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 20:44	1
1,4-Dioxane	<50		50		ug/L			01/16/13 20:44	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 20:44	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
Methylene Chloride	**3.5**		1.0		ug/L			01/16/13 20:44	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 20:44	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 20:44	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 20:44	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 20:44	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
Styrene	<1.0		1.0		ug/L			01/16/13 20:44	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 20:44	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 20:44	1
Toluene	<1.0		1.0		ug/L			01/16/13 20:44	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 20:44	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:44	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: EB-1
Date Collected: 01/10/13 08:45
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-16
Matrix: WQ

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 20:44	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 20:44	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 20:44	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 20:44	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*66 - 117*		*01/16/13 20:44*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 121*		*01/16/13 20:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*63 - 129*		*01/16/13 20:44*	*1*
Toluene-d8 (Surr)	*83*		*74 - 115*		*01/16/13 20:44*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-20
Date Collected: 01/10/13 13:12
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-17
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			01/18/13 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*74 - 120*		*01/18/13 15:25*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Bromobenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Bromochloromethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Bromodichloromethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Bromoform	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Bromomethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Carbon tetrachloride	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Chlorobenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Chlorodibromomethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Chloroethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Chloroform	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Chloromethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
2-Chlorotoluene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
4-Chlorotoluene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
cis-1,2-Dichloroethene	**320**		9.1		ug/L			01/16/13 21:06	9.091
1,2-Dibromo-3-Chloropropane	<18		18		ug/L			01/16/13 21:06	9.091
1,2-Dibromoethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Dibromomethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,2-Dichlorobenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,3-Dichlorobenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,4-Dichlorobenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Dichlorodifluoromethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,1-Dichloroethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,2-Dichloroethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,1-Dichloroethene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,2-Dichloropropane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,3-Dichloropropane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
2,2-Dichloropropane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,1-Dichloropropene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,4-Dioxane	<450		450		ug/L			01/16/13 21:06	9.091
Ethylbenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Hexachlorobutadiene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Isopropylbenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Methylene Chloride	<9.1		9.1		ug/L			01/16/13 21:06	9.091
m-Xylene & p-Xylene	<18		18		ug/L			01/16/13 21:06	9.091
Naphthalene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
n-Butylbenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
N-Propylbenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
o-Xylene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
p-Isopropyltoluene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
sec-Butylbenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Styrene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
tert-Butylbenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-20
Date Collected: 01/10/13 13:12
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-17
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,1,2,2-Tetrachloroethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Tetrachloroethene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Toluene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
trans-1,2-Dichloroethene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,2,3-Trichlorobenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,2,4-Trichlorobenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,1,1-Trichloroethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,1,2-Trichloroethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Trichloroethene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Trichlorofluoromethane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,2,3-Trichloropropane	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,2,4-Trimethylbenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
1,3,5-Trimethylbenzene	<9.1		9.1		ug/L			01/16/13 21:06	9.091
Vinyl chloride	<9.1		9.1		ug/L			01/16/13 21:06	9.091

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*66 - 117*		*01/16/13 21:06*	*9.091*
Dibromofluoromethane (Surr)	*101*		*75 - 121*		*01/16/13 21:06*	*9.091*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*		*01/16/13 21:06*	*9.091*
Toluene-d8 (Surr)	*92*		*74 - 115*		*01/16/13 21:06*	*9.091*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-22
Date Collected: 01/10/13 16:33
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-18
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/17/13 15:50	1
Bromobenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
Bromochloromethane	<1.0		1.0		ug/L			01/17/13 15:50	1
Bromodichloromethane	<1.0		1.0		ug/L			01/17/13 15:50	1
Bromoform	<1.0		1.0		ug/L			01/17/13 15:50	1
Bromomethane	<1.0		1.0		ug/L			01/17/13 15:50	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/17/13 15:50	1
Chlorobenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/17/13 15:50	1
Chloroethane	<1.0		1.0		ug/L			01/17/13 15:50	1
Chloroform	<1.0		1.0		ug/L			01/17/13 15:50	1
Chloromethane	<1.0		1.0		ug/L			01/17/13 15:50	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 15:50	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 15:50	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 15:50	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/17/13 15:50	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/17/13 15:50	1
Dibromomethane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/17/13 15:50	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/17/13 15:50	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/17/13 15:50	1
1,4-Dioxane	<50		50		ug/L			01/17/13 15:50	1
Ethylbenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/17/13 15:50	1
Isopropylbenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
Methylene Chloride	<1.0		1.0		ug/L			01/17/13 15:50	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/17/13 15:50	1
Naphthalene	<1.0		1.0		ug/L			01/17/13 15:50	1
n-Butylbenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
N-Propylbenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
o-Xylene	<1.0		1.0		ug/L			01/17/13 15:50	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/17/13 15:50	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
Styrene	<1.0		1.0		ug/L			01/17/13 15:50	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 15:50	1
Tetrachloroethene	<1.0		1.0		ug/L			01/17/13 15:50	1
Toluene	<1.0		1.0		ug/L			01/17/13 15:50	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 15:50	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:50	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-22
Date Collected: 01/10/13 16:33
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-18
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/17/13 15:50	1
Trichloroethene	<1.0		1.0		ug/L			01/17/13 15:50	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/17/13 15:50	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 15:50	1
Vinyl chloride	<1.0		1.0		ug/L			01/17/13 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*01/17/13 15:50*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 121*		*01/17/13 15:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*63 - 129*		*01/17/13 15:50*	*1*
Toluene-d8 (Surr)	*95*		*74 - 115*		*01/17/13 15:50*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-14
Date Collected: 01/09/13 11:55
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-19
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<20		20		ug/L			01/18/13 13:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*74 - 120*		*01/18/13 13:24*	*10*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<100		100		ug/L			01/17/13 16:11	100
Bromobenzene	<100		100		ug/L			01/17/13 16:11	100
Bromochloromethane	<100		100		ug/L			01/17/13 16:11	100
Bromodichloromethane	<100		100		ug/L			01/17/13 16:11	100
Bromoform	<100		100		ug/L			01/17/13 16:11	100
Bromomethane	<100		100		ug/L			01/17/13 16:11	100
Carbon tetrachloride	<100		100		ug/L			01/17/13 16:11	100
Chlorobenzene	<100		100		ug/L			01/17/13 16:11	100
Chlorodibromomethane	<100		100		ug/L			01/17/13 16:11	100
Chloroethane	<100		100		ug/L			01/17/13 16:11	100
Chloroform	<100		100		ug/L			01/17/13 16:11	100
Chloromethane	<100		100		ug/L			01/17/13 16:11	100
2-Chlorotoluene	<100		100		ug/L			01/17/13 16:11	100
4-Chlorotoluene	<100		100		ug/L			01/17/13 16:11	100
cis-1,2-Dichloroethene	**310**		100		ug/L			01/17/13 16:11	100
1,2-Dibromo-3-Chloropropane	<200		200		ug/L			01/17/13 16:11	100
1,2-Dibromoethane	<100		100		ug/L			01/17/13 16:11	100
Dibromomethane	<100		100		ug/L			01/17/13 16:11	100
1,2-Dichlorobenzene	<100		100		ug/L			01/17/13 16:11	100
1,3-Dichlorobenzene	<100		100		ug/L			01/17/13 16:11	100
1,4-Dichlorobenzene	<100		100		ug/L			01/17/13 16:11	100
Dichlorodifluoromethane	<100		100		ug/L			01/17/13 16:11	100
1,1-Dichloroethane	<100		100		ug/L			01/17/13 16:11	100
1,2-Dichloroethane	<100		100		ug/L			01/17/13 16:11	100
1,1-Dichloroethene	<100		100		ug/L			01/17/13 16:11	100
1,2-Dichloropropane	<100		100		ug/L			01/17/13 16:11	100
1,3-Dichloropropane	<100		100		ug/L			01/17/13 16:11	100
2,2-Dichloropropane	<100		100		ug/L			01/17/13 16:11	100
1,1-Dichloropropene	<100		100		ug/L			01/17/13 16:11	100
1,4-Dioxane	<5000		5000		ug/L			01/17/13 16:11	100
Ethylbenzene	<100		100		ug/L			01/17/13 16:11	100
Hexachlorobutadiene	<100		100		ug/L			01/17/13 16:11	100
Isopropylbenzene	<100		100		ug/L			01/17/13 16:11	100
Methylene Chloride	<100		100		ug/L			01/17/13 16:11	100
m-Xylene & p-Xylene	<200		200		ug/L			01/17/13 16:11	100
Naphthalene	<100		100		ug/L			01/17/13 16:11	100
n-Butylbenzene	<100		100		ug/L			01/17/13 16:11	100
N-Propylbenzene	<100		100		ug/L			01/17/13 16:11	100
o-Xylene	<100		100		ug/L			01/17/13 16:11	100
p-Isopropyltoluene	<100		100		ug/L			01/17/13 16:11	100
sec-Butylbenzene	<100		100		ug/L			01/17/13 16:11	100
Styrene	<100		100		ug/L			01/17/13 16:11	100
tert-Butylbenzene	<100		100		ug/L			01/17/13 16:11	100

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-14
Date Collected: 01/09/13 11:55
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-19
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<100		100		ug/L			01/17/13 16:11	100
1,1,2,2-Tetrachloroethane	<100		100		ug/L			01/17/13 16:11	100
Tetrachloroethene	<100		100		ug/L			01/17/13 16:11	100
Toluene	<100		100		ug/L			01/17/13 16:11	100
trans-1,2-Dichloroethene	<100		100		ug/L			01/17/13 16:11	100
1,2,3-Trichlorobenzene	<100		100		ug/L			01/17/13 16:11	100
1,2,4-Trichlorobenzene	<100		100		ug/L			01/17/13 16:11	100
1,1,1-Trichloroethane	<100		100		ug/L			01/17/13 16:11	100
1,1,2-Trichloroethane	<100		100		ug/L			01/17/13 16:11	100
Trichloroethene	**3400**		100		ug/L			01/17/13 16:11	100
Trichlorofluoromethane	<100		100		ug/L			01/17/13 16:11	100
1,2,3-Trichloropropane	<100		100		ug/L			01/17/13 16:11	100
1,2,4-Trimethylbenzene	<100		100		ug/L			01/17/13 16:11	100
1,3,5-Trimethylbenzene	<100		100		ug/L			01/17/13 16:11	100
Vinyl chloride	<100		100		ug/L			01/17/13 16:11	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*66 - 117*		*01/17/13 16:11*	*100*
Dibromofluoromethane (Surr)	*107*		*75 - 121*		*01/17/13 16:11*	*100*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*		*01/17/13 16:11*	*100*
Toluene-d8 (Surr)	*99*		*74 - 115*		*01/17/13 16:11*	*100*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-19
Date Collected: 01/09/13 14:45
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-20
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			01/18/13 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*74 - 120*		*01/18/13 15:50*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<200		200		ug/L			01/17/13 20:27	200
Bromobenzene	<200		200		ug/L			01/17/13 20:27	200
Bromochloromethane	<200		200		ug/L			01/17/13 20:27	200
Bromodichloromethane	<200		200		ug/L			01/17/13 20:27	200
Bromoform	<200		200		ug/L			01/17/13 20:27	200
Bromomethane	<200		200		ug/L			01/17/13 20:27	200
Carbon tetrachloride	<200		200		ug/L			01/17/13 20:27	200
Chlorobenzene	<200		200		ug/L			01/17/13 20:27	200
Chlorodibromomethane	<200		200		ug/L			01/17/13 20:27	200
Chloroethane	<200		200		ug/L			01/17/13 20:27	200
Chloroform	<200		200		ug/L			01/17/13 20:27	200
Chloromethane	<200		200		ug/L			01/17/13 20:27	200
2-Chlorotoluene	<200		200		ug/L			01/17/13 20:27	200
4-Chlorotoluene	<200		200		ug/L			01/17/13 20:27	200
cis-1,2-Dichloroethene	<200		200		ug/L			01/17/13 20:27	200
1,2-Dibromo-3-Chloropropane	<400		400		ug/L			01/17/13 20:27	200
1,2-Dibromoethane	<200		200		ug/L			01/17/13 20:27	200
Dibromomethane	<200		200		ug/L			01/17/13 20:27	200
1,2-Dichlorobenzene	<200		200		ug/L			01/17/13 20:27	200
1,3-Dichlorobenzene	<200		200		ug/L			01/17/13 20:27	200
1,4-Dichlorobenzene	<200		200		ug/L			01/17/13 20:27	200
Dichlorodifluoromethane	<200		200		ug/L			01/17/13 20:27	200
1,1-Dichloroethane	<200		200		ug/L			01/17/13 20:27	200
1,2-Dichloroethane	<200		200		ug/L			01/17/13 20:27	200
1,1-Dichloroethene	<200		200		ug/L			01/17/13 20:27	200
1,2-Dichloropropane	<200		200		ug/L			01/17/13 20:27	200
1,3-Dichloropropane	<200		200		ug/L			01/17/13 20:27	200
2,2-Dichloropropane	<200		200		ug/L			01/17/13 20:27	200
1,1-Dichloropropene	<200		200		ug/L			01/17/13 20:27	200
1,4-Dioxane	<10000		10000		ug/L			01/17/13 20:27	200
Ethylbenzene	<200		200		ug/L			01/17/13 20:27	200
Hexachlorobutadiene	<200		200		ug/L			01/17/13 20:27	200
Isopropylbenzene	<200		200		ug/L			01/17/13 20:27	200
Methylene Chloride	<200		200		ug/L			01/17/13 20:27	200
m-Xylene & p-Xylene	<400		400		ug/L			01/17/13 20:27	200
Naphthalene	<200		200		ug/L			01/17/13 20:27	200
n-Butylbenzene	<200		200		ug/L			01/17/13 20:27	200
N-Propylbenzene	<200		200		ug/L			01/17/13 20:27	200
o-Xylene	<200		200		ug/L			01/17/13 20:27	200
p-Isopropyltoluene	<200		200		ug/L			01/17/13 20:27	200
sec-Butylbenzene	<200		200		ug/L			01/17/13 20:27	200
Styrene	<200		200		ug/L			01/17/13 20:27	200
tert-Butylbenzene	<200		200		ug/L			01/17/13 20:27	200

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-19
Date Collected: 01/09/13 14:45
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-20
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<200		200		ug/L			01/17/13 20:27	200
1,1,2,2-Tetrachloroethane	<200		200		ug/L			01/17/13 20:27	200
Tetrachloroethene	<200		200		ug/L			01/17/13 20:27	200
Toluene	<200		200		ug/L			01/17/13 20:27	200
trans-1,2-Dichloroethene	<200		200		ug/L			01/17/13 20:27	200
1,2,3-Trichlorobenzene	<200		200		ug/L			01/17/13 20:27	200
1,2,4-Trichlorobenzene	<200		200		ug/L			01/17/13 20:27	200
1,1,1-Trichloroethane	<200		200		ug/L			01/17/13 20:27	200
1,1,2-Trichloroethane	<200		200		ug/L			01/17/13 20:27	200
Trichloroethene	**6400**		200		ug/L			01/17/13 20:27	200
Trichlorofluoromethane	<200		200		ug/L			01/17/13 20:27	200
1,2,3-Trichloropropane	<200		200		ug/L			01/17/13 20:27	200
1,2,4-Trimethylbenzene	<200		200		ug/L			01/17/13 20:27	200
1,3,5-Trimethylbenzene	<200		200		ug/L			01/17/13 20:27	200
Vinyl chloride	<200		200		ug/L			01/17/13 20:27	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*66 - 117*		*01/17/13 20:27*	*200*
Dibromofluoromethane (Surr)	*111*		*75 - 121*		*01/17/13 20:27*	*200*
1,2-Dichloroethane-d4 (Surr)	*101*		*63 - 129*		*01/17/13 20:27*	*200*
Toluene-d8 (Surr)	*97*		*74 - 115*		*01/17/13 20:27*	*200*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: DUP-2
Date Collected: 01/09/13 12:00
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-21
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<200		200		ug/L			01/17/13 20:48	200
Bromobenzene	<200		200		ug/L			01/17/13 20:48	200
Bromochloromethane	<200		200		ug/L			01/17/13 20:48	200
Bromodichloromethane	<200		200		ug/L			01/17/13 20:48	200
Bromoform	<200		200		ug/L			01/17/13 20:48	200
Bromomethane	<200		200		ug/L			01/17/13 20:48	200
Carbon tetrachloride	<200		200		ug/L			01/17/13 20:48	200
Chlorobenzene	<200		200		ug/L			01/17/13 20:48	200
Chlorodibromomethane	<200		200		ug/L			01/17/13 20:48	200
Chloroethane	<200		200		ug/L			01/17/13 20:48	200
Chloroform	<200		200		ug/L			01/17/13 20:48	200
Chloromethane	<200		200		ug/L			01/17/13 20:48	200
2-Chlorotoluene	<200		200		ug/L			01/17/13 20:48	200
4-Chlorotoluene	<200		200		ug/L			01/17/13 20:48	200
cis-1,2-Dichloroethene	<200		200		ug/L			01/17/13 20:48	200
1,2-Dibromo-3-Chloropropane	<400		400		ug/L			01/17/13 20:48	200
1,2-Dibromoethane	<200		200		ug/L			01/17/13 20:48	200
Dibromomethane	<200		200		ug/L			01/17/13 20:48	200
1,2-Dichlorobenzene	<200		200		ug/L			01/17/13 20:48	200
1,3-Dichlorobenzene	<200		200		ug/L			01/17/13 20:48	200
1,4-Dichlorobenzene	<200		200		ug/L			01/17/13 20:48	200
Dichlorodifluoromethane	<200		200		ug/L			01/17/13 20:48	200
1,1-Dichloroethane	<200		200		ug/L			01/17/13 20:48	200
1,2-Dichloroethane	<200		200		ug/L			01/17/13 20:48	200
1,1-Dichloroethene	<200		200		ug/L			01/17/13 20:48	200
1,2-Dichloropropane	<200		200		ug/L			01/17/13 20:48	200
1,3-Dichloropropane	<200		200		ug/L			01/17/13 20:48	200
2,2-Dichloropropane	<200		200		ug/L			01/17/13 20:48	200
1,1-Dichloropropene	<200		200		ug/L			01/17/13 20:48	200
1,4-Dioxane	<10000		10000		ug/L			01/17/13 20:48	200
Ethylbenzene	<200		200		ug/L			01/17/13 20:48	200
Hexachlorobutadiene	<200		200		ug/L			01/17/13 20:48	200
Isopropylbenzene	<200		200		ug/L			01/17/13 20:48	200
Methylene Chloride	<200		200		ug/L			01/17/13 20:48	200
m-Xylene & p-Xylene	<400		400		ug/L			01/17/13 20:48	200
Naphthalene	<200		200		ug/L			01/17/13 20:48	200
n-Butylbenzene	<200		200		ug/L			01/17/13 20:48	200
N-Propylbenzene	<200		200		ug/L			01/17/13 20:48	200
o-Xylene	<200		200		ug/L			01/17/13 20:48	200
p-Isopropyltoluene	<200		200		ug/L			01/17/13 20:48	200
sec-Butylbenzene	<200		200		ug/L			01/17/13 20:48	200
Styrene	<200		200		ug/L			01/17/13 20:48	200
tert-Butylbenzene	<200		200		ug/L			01/17/13 20:48	200
1,1,1,2-Tetrachloroethane	<200		200		ug/L			01/17/13 20:48	200
1,1,2,2-Tetrachloroethane	<200		200		ug/L			01/17/13 20:48	200
Tetrachloroethene	<200		200		ug/L			01/17/13 20:48	200
Toluene	<200		200		ug/L			01/17/13 20:48	200
trans-1,2-Dichloroethene	<200		200		ug/L			01/17/13 20:48	200
1,2,3-Trichlorobenzene	<200		200		ug/L			01/17/13 20:48	200

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: DUP-2
Date Collected: 01/09/13 12:00
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-21
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<200		200		ug/L			01/17/13 20:48	200
1,1,1-Trichloroethane	<200		200		ug/L			01/17/13 20:48	200
1,1,2-Trichloroethane	<200		200		ug/L			01/17/13 20:48	200
Trichloroethene	**6200**		200		ug/L			01/17/13 20:48	200
Trichlorofluoromethane	<200		200		ug/L			01/17/13 20:48	200
1,2,3-Trichloropropane	<200		200		ug/L			01/17/13 20:48	200
1,2,4-Trimethylbenzene	<200		200		ug/L			01/17/13 20:48	200
1,3,5-Trimethylbenzene	<200		200		ug/L			01/17/13 20:48	200
Vinyl chloride	<200		200		ug/L			01/17/13 20:48	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*66 - 117*		*01/17/13 20:48*	*200*
Dibromofluoromethane (Surr)	*113*		*75 - 121*		*01/17/13 20:48*	*200*
1,2-Dichloroethane-d4 (Surr)	*101*		*63 - 129*		*01/17/13 20:48*	*200*
Toluene-d8 (Surr)	*95*		*74 - 115*		*01/17/13 20:48*	*200*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-10
Date Collected: 01/10/13 11:15
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-22
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/17/13 15:04	1
Bromobenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
Bromochloromethane	<1.0		1.0		ug/L			01/17/13 15:04	1
Bromodichloromethane	<1.0		1.0		ug/L			01/17/13 15:04	1
Bromoform	<1.0		1.0		ug/L			01/17/13 15:04	1
Bromomethane	<1.0		1.0		ug/L			01/17/13 15:04	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/17/13 15:04	1
Chlorobenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/17/13 15:04	1
Chloroethane	<1.0		1.0		ug/L			01/17/13 15:04	1
Chloroform	**1.1**		1.0		ug/L			01/17/13 15:04	1
Chloromethane	<1.0		1.0		ug/L			01/17/13 15:04	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 15:04	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 15:04	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 15:04	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/17/13 15:04	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/17/13 15:04	1
Dibromomethane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/17/13 15:04	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/17/13 15:04	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/17/13 15:04	1
1,4-Dioxane	<50		50		ug/L			01/17/13 15:04	1
Ethylbenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/17/13 15:04	1
Isopropylbenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
Methylene Chloride	<1.0		1.0		ug/L			01/17/13 15:04	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/17/13 15:04	1
Naphthalene	<1.0		1.0		ug/L			01/17/13 15:04	1
n-Butylbenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
N-Propylbenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
o-Xylene	<1.0		1.0		ug/L			01/17/13 15:04	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/17/13 15:04	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
Styrene	<1.0		1.0		ug/L			01/17/13 15:04	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 15:04	1
Tetrachloroethene	<1.0		1.0		ug/L			01/17/13 15:04	1
Toluene	<1.0		1.0		ug/L			01/17/13 15:04	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 15:04	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:04	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-10
Date Collected: 01/10/13 11:15
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-22
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/17/13 15:04	1
Trichloroethene	**2.5**		1.0		ug/L			01/17/13 15:04	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/17/13 15:04	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 15:04	1
Vinyl chloride	<1.0		1.0		ug/L			01/17/13 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*66 - 117*		*01/17/13 15:04*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 121*		*01/17/13 15:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*63 - 129*		*01/17/13 15:04*	*1*
Toluene-d8 (Surr)	*90*		*74 - 115*		*01/17/13 15:04*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-5
Date Collected: 01/10/13 14:35
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-23
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<40		40		ug/L			01/18/13 13:48	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*74 - 120*		*01/18/13 13:48*	*20*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<8.0		8.0		ug/L			01/18/13 12:34	8
Bromobenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
Bromochloromethane	<8.0		8.0		ug/L			01/18/13 12:34	8
Bromodichloromethane	<8.0		8.0		ug/L			01/18/13 12:34	8
Bromoform	<8.0		8.0		ug/L			01/18/13 12:34	8
Bromomethane	<8.0		8.0		ug/L			01/18/13 12:34	8
Carbon tetrachloride	<8.0		8.0		ug/L			01/18/13 12:34	8
Chlorobenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
Chlorodibromomethane	<8.0		8.0		ug/L			01/18/13 12:34	8
Chloroethane	<8.0		8.0		ug/L			01/18/13 12:34	8
Chloroform	<8.0		8.0		ug/L			01/18/13 12:34	8
Chloromethane	<8.0		8.0		ug/L			01/18/13 12:34	8
2-Chlorotoluene	<8.0		8.0		ug/L			01/18/13 12:34	8
4-Chlorotoluene	<8.0		8.0		ug/L			01/18/13 12:34	8
cis-1,2-Dichloroethene	<8.0		8.0		ug/L			01/18/13 12:34	8
1,2-Dibromo-3-Chloropropane	<16		16		ug/L			01/18/13 12:34	8
1,2-Dibromoethane	<8.0		8.0		ug/L			01/18/13 12:34	8
Dibromomethane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,2-Dichlorobenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
1,3-Dichlorobenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
1,4-Dichlorobenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
Dichlorodifluoromethane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,1-Dichloroethane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,2-Dichloroethane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,1-Dichloroethene	<8.0		8.0		ug/L			01/18/13 12:34	8
1,2-Dichloropropane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,3-Dichloropropane	<8.0		8.0		ug/L			01/18/13 12:34	8
2,2-Dichloropropane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,1-Dichloropropene	<8.0		8.0		ug/L			01/18/13 12:34	8
1,4-Dioxane	<400		400		ug/L			01/18/13 12:34	8
Ethylbenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
Hexachlorobutadiene	<8.0		8.0		ug/L			01/18/13 12:34	8
Isopropylbenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
Methylene Chloride	<8.0		8.0		ug/L			01/18/13 12:34	8
m-Xylene & p-Xylene	<16		16		ug/L			01/18/13 12:34	8
Naphthalene	<8.0		8.0		ug/L			01/18/13 12:34	8
n-Butylbenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
N-Propylbenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
o-Xylene	<8.0		8.0		ug/L			01/18/13 12:34	8
p-Isopropyltoluene	<8.0		8.0		ug/L			01/18/13 12:34	8
sec-Butylbenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
Styrene	<8.0		8.0		ug/L			01/18/13 12:34	8
tert-Butylbenzene	<8.0		8.0		ug/L			01/18/13 12:34	8

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-5
Date Collected: 01/10/13 14:35
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-23
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,1,2,2-Tetrachloroethane	<8.0		8.0		ug/L			01/18/13 12:34	8
Tetrachloroethene	<8.0		8.0		ug/L			01/18/13 12:34	8
Toluene	<8.0		8.0		ug/L			01/18/13 12:34	8
trans-1,2-Dichloroethene	<8.0		8.0		ug/L			01/18/13 12:34	8
1,2,3-Trichlorobenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
1,2,4-Trichlorobenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
1,1,1-Trichloroethane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,1,2-Trichloroethane	<8.0		8.0		ug/L			01/18/13 12:34	8
Trichloroethene	**240**		8.0		ug/L			01/18/13 12:34	8
Trichlorofluoromethane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,2,3-Trichloropropane	<8.0		8.0		ug/L			01/18/13 12:34	8
1,2,4-Trimethylbenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
1,3,5-Trimethylbenzene	<8.0		8.0		ug/L			01/18/13 12:34	8
Vinyl chloride	<8.0		8.0		ug/L			01/18/13 12:34	8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*01/18/13 12:34*	*8*
Dibromofluoromethane (Surr)	*104*		*75 - 121*		*01/18/13 12:34*	*8*
1,2-Dichloroethane-d4 (Surr)	*95*		*63 - 129*		*01/18/13 12:34*	*8*
Toluene-d8 (Surr)	*93*		*74 - 115*		*01/18/13 12:34*	*8*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-3
Date Collected: 01/10/13 17:25
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-24
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/17/13 16:32	1
Bromobenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
Bromochloromethane	<1.0		1.0		ug/L			01/17/13 16:32	1
Bromodichloromethane	<1.0		1.0		ug/L			01/17/13 16:32	1
Bromoform	<1.0		1.0		ug/L			01/17/13 16:32	1
Bromomethane	<1.0		1.0		ug/L			01/17/13 16:32	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/17/13 16:32	1
Chlorobenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/17/13 16:32	1
Chloroethane	<1.0		1.0		ug/L			01/17/13 16:32	1
Chloroform	**2.7**		1.0		ug/L			01/17/13 16:32	1
Chloromethane	<1.0		1.0		ug/L			01/17/13 16:32	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 16:32	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 16:32	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 16:32	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/17/13 16:32	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/17/13 16:32	1
Dibromomethane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/17/13 16:32	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/17/13 16:32	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/17/13 16:32	1
1,4-Dioxane	<50		50		ug/L			01/17/13 16:32	1
Ethylbenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/17/13 16:32	1
Isopropylbenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
Methylene Chloride	<1.0		1.0		ug/L			01/17/13 16:32	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/17/13 16:32	1
Naphthalene	<1.0		1.0		ug/L			01/17/13 16:32	1
n-Butylbenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
N-Propylbenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
o-Xylene	<1.0		1.0		ug/L			01/17/13 16:32	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/17/13 16:32	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
Styrene	<1.0		1.0		ug/L			01/17/13 16:32	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 16:32	1
Tetrachloroethene	<1.0		1.0		ug/L			01/17/13 16:32	1
Toluene	<1.0		1.0		ug/L			01/17/13 16:32	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 16:32	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 16:32	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MW-3
Date Collected: 01/10/13 17:25
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-24
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/17/13 16:32	1
Trichloroethene	**1.3**		1.0		ug/L			01/17/13 16:32	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/17/13 16:32	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 16:32	1
Vinyl chloride	<1.0		1.0		ug/L			01/17/13 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*01/17/13 16:32*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 121*		*01/17/13 16:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*		*01/17/13 16:32*	*1*
Toluene-d8 (Surr)	*94*		*74 - 115*		*01/17/13 16:32*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: TRIP BLANK
Date Collected: 01/08/13 00:00
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-25
Matrix: WQ

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/17/13 21:09	1
Bromobenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
Bromochloromethane	<1.0		1.0		ug/L			01/17/13 21:09	1
Bromodichloromethane	<1.0		1.0		ug/L			01/17/13 21:09	1
Bromoform	<1.0		1.0		ug/L			01/17/13 21:09	1
Bromomethane	<1.0		1.0		ug/L			01/17/13 21:09	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/17/13 21:09	1
Chlorobenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/17/13 21:09	1
Chloroethane	<1.0		1.0		ug/L			01/17/13 21:09	1
Chloroform	<1.0		1.0		ug/L			01/17/13 21:09	1
Chloromethane	<1.0		1.0		ug/L			01/17/13 21:09	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 21:09	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 21:09	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 21:09	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/17/13 21:09	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/17/13 21:09	1
Dibromomethane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/17/13 21:09	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/17/13 21:09	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/17/13 21:09	1
1,4-Dioxane	<50		50		ug/L			01/17/13 21:09	1
Ethylbenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/17/13 21:09	1
Isopropylbenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
Methylene Chloride	<1.0		1.0		ug/L			01/17/13 21:09	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/17/13 21:09	1
Naphthalene	<1.0		1.0		ug/L			01/17/13 21:09	1
n-Butylbenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
N-Propylbenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
o-Xylene	<1.0		1.0		ug/L			01/17/13 21:09	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/17/13 21:09	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
Styrene	<1.0		1.0		ug/L			01/17/13 21:09	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 21:09	1
Tetrachloroethene	<1.0		1.0		ug/L			01/17/13 21:09	1
Toluene	<1.0		1.0		ug/L			01/17/13 21:09	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 21:09	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 21:09	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: TRIP BLANK
Date Collected: 01/08/13 00:00
Date Received: 01/12/13 10:00

Lab Sample ID: 240-19826-25
Matrix: WQ

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/17/13 21:09	1
Trichloroethene	<1.0		1.0		ug/L			01/17/13 21:09	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/17/13 21:09	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 21:09	1
Vinyl chloride	<1.0		1.0		ug/L			01/17/13 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*66 - 117*		*01/17/13 21:09*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 121*		*01/17/13 21:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*63 - 129*		*01/17/13 21:09*	*1*
Toluene-d8 (Surr)	*94*		*74 - 115*		*01/17/13 21:09*	*1*

Surrogate Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	12DCE	TOL
Lab Sample ID	Client Sample ID	(66-117)	(75-121)	(63-129)	(74-115)
240-19826-1	MB-2	82	102	91	92
240-19826-1 MS	MB-2	99	100	96	99
240-19826-1 MSD	MB-2	101	100	96	98
240-19826-2	SEEP-H	80	110	101	96
240-19826-3	SEEP-G	80	104	95	93
240-19826-4	SEEP-2	82	104	98	93
240-19826-5	SEEP-I	80	106	97	90
240-19826-6	SEEP-L	82	108	95	90
240-19826-7	SEEP-B	79	106	99	89
240-19826-8	DUP-1	78	106	100	94
240-19826-9	MB-3	82	109	97	91
240-19826-10	MB15	82	106	98	91
240-19826-11	MB-5	82	107	97	92
240-19826-12	MB-16	81	108	99	91
240-19826-13	MW-28	86	93	95	85
240-19826-14	MW-27	90	98	99	91
240-19826-15	MW-25	79	107	99	95
240-19826-17	MW-20	89	101	103	92
240-19826-18	MW-22	82	107	101	95
240-19826-19	MW-14	84	107	100	99
240-19826-20	MW-19	80	111	101	97
240-19826-21	DUP-2	78	113	101	95
240-19826-22	MW-10	81	105	99	90
240-19826-23	MW-5	79	104	95	93
240-19826-24	MW-3	79	108	100	94
LCS 240-72223/4	Lab Control Sample	99	98	94	99
LCS 240-72267/4	Lab Control Sample	91	89	92	89
LCS 240-72385/4	Lab Control Sample	101	98	94	94
LCS 240-72514/4	Lab Control Sample	102	99	93	101
MB 240-72223/5	Method Blank	83	104	96	91
MB 240-72267/5	Method Blank	84	92	97	86
MB 240-72385/5	Method Blank	87	104	95	90
MB 240-72514/5	Method Blank	85	103	93	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: WQ **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	12DCE	TOL
Lab Sample ID	Client Sample ID	(66-117)	(75-121)	(63-129)	(74-115)
240-19826-16	EB-1	83	93	94	83
240-19826-25	TRIP BLANK	78	111	102	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	12DCE (74-120)							
240-19826-13	MW-28	79							
240-19826-14	MW-27	84							
240-19826-15	MW-25	82							
240-19826-15 MS	MW-25	78							
240-19826-15 MSD	MW-25	83							
240-19826-17	MW-20	82							
240-19826-19	MW-14	81							
240-19826-19 MS	MW-14	82							
240-19826-19 MSD	MW-14	84							
240-19826-20	MW-19	84							
240-19826-23	MW-5	85							
LCS 240-72393/3	Lab Control Sample	82							
LCS 240-72530/3	Lab Control Sample	83							
MB 240-72393/5	Method Blank	91							
MB 240-72530/5	Method Blank	85							

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-72223/5
Matrix: Water
Analysis Batch: 72223

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 12:50	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 12:50	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 12:50	1
Bromoform	<1.0		1.0		ug/L			01/16/13 12:50	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 12:50	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 12:50	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 12:50	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 12:50	1
Chloroform	<1.0		1.0		ug/L			01/16/13 12:50	1
Chloromethane	<1.0		1.0		ug/L			01/16/13 12:50	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 12:50	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 12:50	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 12:50	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 12:50	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 12:50	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 12:50	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 12:50	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 12:50	1
1,4-Dioxane	<50		50		ug/L			01/16/13 12:50	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 12:50	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 12:50	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 12:50	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 12:50	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 12:50	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 12:50	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
Styrene	<1.0		1.0		ug/L			01/16/13 12:50	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 12:50	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 12:50	1
Toluene	<1.0		1.0		ug/L			01/16/13 12:50	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 12:50	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-72223/5
Matrix: Water
Analysis Batch: 72223

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 12:50	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 12:50	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 12:50	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 12:50	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*66 - 117*		*01/16/13 12:50*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 121*		*01/16/13 12:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 129*		*01/16/13 12:50*	*1*
Toluene-d8 (Surr)	*91*		*74 - 115*		*01/16/13 12:50*	*1*

Lab Sample ID: LCS 240-72223/4
Matrix: Water
Analysis Batch: 72223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.1		ug/L		101	83 - 112
Bromobenzene	10.0	10.4		ug/L		104	76 - 115
Bromochloromethane	10.0	10.2		ug/L		102	77 - 120
Bromodichloromethane	10.0	10.6		ug/L		106	72 - 121
Bromoform	10.0	9.72		ug/L		97	40 - 131
Bromomethane	10.0	7.63		ug/L		76	11 - 185
Carbon tetrachloride	10.0	11.6		ug/L		116	66 - 128
Chlorobenzene	10.0	9.72		ug/L		97	85 - 110
Chlorodibromomethane	10.0	10.3		ug/L		103	64 - 119
Chloroethane	10.0	8.43		ug/L		84	25 - 153
Chloroform	10.0	9.71		ug/L		97	79 - 117
Chloromethane	10.0	9.52		ug/L		95	44 - 126
2-Chlorotoluene	10.0	10.1		ug/L		101	76 - 116
4-Chlorotoluene	10.0	10.4		ug/L		104	77 - 115
cis-1,2-Dichloroethene	10.0	10.2		ug/L		102	80 - 113
1,2-Dibromo-3-Chloropropane	10.0	8.36		ug/L		84	42 - 136
1,2-Dibromoethane	10.0	9.53		ug/L		95	79 - 113
Dibromomethane	10.0	10.0		ug/L		100	81 - 120
1,2-Dichlorobenzene	10.0	9.55		ug/L		96	81 - 110
1,3-Dichlorobenzene	10.0	9.85		ug/L		99	80 - 110
1,4-Dichlorobenzene	10.0	9.44		ug/L		94	82 - 110
Dichlorodifluoromethane	10.0	11.8		ug/L		118	19 - 129
1,1-Dichloroethane	10.0	10.2		ug/L		102	82 - 115
1,2-Dichloroethane	10.0	10.1		ug/L		101	71 - 127
1,1-Dichloroethene	10.0	10.7		ug/L		107	78 - 131
1,2-Dichloropropane	10.0	10.2		ug/L		102	81 - 115

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-72223/4
Matrix: Water
Analysis Batch: 72223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	10.0	9.56		ug/L		96	79 - 116
2,2-Dichloropropane	10.0	10.4		ug/L		104	50 - 129
1,1-Dichloropropene	10.0	10.0		ug/L		100	83 - 114
Ethylbenzene	10.0	9.99		ug/L		100	83 - 112
Hexachlorobutadiene	10.0	5.78		ug/L		58	36 - 134
Isopropylbenzene	10.0	9.80		ug/L		98	75 - 114
Methylene Chloride	10.0	10.3		ug/L		103	66 - 131
m-Xylene & p-Xylene	20.0	20.4		ug/L		102	83 - 113
Naphthalene	10.0	6.09		ug/L		61	32 - 141
n-Butylbenzene	10.0	9.19		ug/L		92	66 - 125
N-Propylbenzene	10.0	10.6		ug/L		106	74 - 121
o-Xylene	10.0	10.1		ug/L		101	83 - 113
p-Isopropyltoluene	10.0	10.1		ug/L		101	74 - 120
sec-Butylbenzene	10.0	9.75		ug/L		98	70 - 117
Styrene	10.0	10.3		ug/L		103	79 - 114
tert-Butylbenzene	10.0	10.3		ug/L		103	71 - 115
1,1,1,2-Tetrachloroethane	10.0	10.0		ug/L		100	72 - 116
1,1,2,2-Tetrachloroethane	10.0	8.99		ug/L		90	68 - 118
Tetrachloroethene	10.0	10.1		ug/L		101	79 - 114
Toluene	10.0	9.93		ug/L		99	84 - 111
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	83 - 117
1,2,3-Trichlorobenzene	10.0	6.67		ug/L		67	54 - 126
1,2,4-Trichlorobenzene	10.0	7.21		ug/L		72	48 - 135
1,1,1-Trichloroethane	10.0	10.5		ug/L		105	74 - 118
1,1,2-Trichloroethane	10.0	9.92		ug/L		99	80 - 112
Trichloroethene	10.0	10.3		ug/L		103	76 - 117
Trichlorofluoromethane	10.0	8.98		ug/L		90	49 - 157
1,2,3-Trichloropropane	10.0	9.70		ug/L		97	73 - 129
1,2,4-Trimethylbenzene	10.0	10.3		ug/L		103	76 - 120
1,3,5-Trimethylbenzene	10.0	10.2		ug/L		102	72 - 118
Vinyl chloride	10.0	8.97		ug/L		90	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*66 - 117*
Dibromofluoromethane (Surr)	*98*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*94*		*63 - 129*
Toluene-d8 (Surr)	*99*		*74 - 115*

Lab Sample ID: 240-19826-1 MS
Matrix: Water
Analysis Batch: 72223

Client Sample ID: MB-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<5.0		50.0	52.1		ug/L		104	72 - 121
Bromobenzene	<5.0		50.0	48.0		ug/L		96	71 - 116
Bromochloromethane	<5.0		50.0	51.9		ug/L		104	73 - 121
Bromodichloromethane	<5.0		50.0	53.8		ug/L		108	67 - 120
Bromoform	<5.0		50.0	48.0		ug/L		96	32 - 128

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-19826-1 MS
Matrix: Water
Analysis Batch: 72223

Client Sample ID: MB-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	<5.0		50.0	40.6		ug/L		81	10 - 186
Carbon tetrachloride	<5.0		50.0	56.5		ug/L		113	59 - 129
Chlorobenzene	<5.0		50.0	47.9		ug/L		96	80 - 110
Chlorodibromomethane	<5.0		50.0	50.3		ug/L		101	56 - 118
Chloroethane	<5.0		50.0	46.6		ug/L		86	21 - 165
Chloroform	<5.0		50.0	48.8		ug/L		98	76 - 118
Chloromethane	<5.0		50.0	47.5		ug/L		95	33 - 132
2-Chlorotoluene	<5.0		50.0	46.7		ug/L		93	69 - 117
4-Chlorotoluene	<5.0		50.0	48.3		ug/L		97	71 - 116
cis-1,2-Dichloroethene	170		50.0	218	E	ug/L		103	70 - 120
1,2-Dibromo-3-Chloropropane	<10		50.0	40.7		ug/L		81	32 - 139
1,2-Dibromoethane	<5.0		50.0	46.2		ug/L		92	74 - 113
Dibromomethane	<5.0		50.0	52.8		ug/L		106	77 - 121
1,2-Dichlorobenzene	<5.0		50.0	46.2		ug/L		92	75 - 111
1,3-Dichlorobenzene	<5.0		50.0	46.2		ug/L		92	73 - 110
1,4-Dichlorobenzene	<5.0		50.0	44.8		ug/L		90	75 - 110
Dichlorodifluoromethane	<5.0		50.0	49.8		ug/L		100	17 - 128
1,1-Dichloroethane	8.2		50.0	58.9		ug/L		102	79 - 116
1,2-Dichloroethane	<5.0		50.0	51.1		ug/L		102	68 - 129
1,1-Dichloroethene	17		50.0	69.4		ug/L		104	74 - 135
1,2-Dichloropropane	<5.0		50.0	50.4		ug/L		101	78 - 115
1,3-Dichloropropane	<5.0		50.0	47.4		ug/L		95	74 - 118
2,2-Dichloropropane	<5.0		50.0	50.6		ug/L		101	38 - 127
1,1-Dichloropropene	<5.0		50.0	50.0		ug/L		100	80 - 114
Ethylbenzene	<5.0		50.0	50.2		ug/L		100	75 - 116
Hexachlorobutadiene	<5.0		50.0	27.6		ug/L		55	27 - 132
Isopropylbenzene	<5.0		50.0	46.5		ug/L		93	68 - 116
Methylene Chloride	<5.0		50.0	52.7		ug/L		105	63 - 128
m-Xylene & p-Xylene	<10		100	100		ug/L		100	75 - 117
Naphthalene	<5.0		50.0	27.0		ug/L		54	15 - 158
n-Butylbenzene	<5.0		50.0	41.9		ug/L		84	56 - 127
N-Propylbenzene	<5.0		50.0	49.4		ug/L		99	64 - 124
o-Xylene	<5.0		50.0	50.2		ug/L		100	76 - 116
p-Isopropyltoluene	<5.0		50.0	46.1		ug/L		92	64 - 122
sec-Butylbenzene	<5.0		50.0	43.5		ug/L		87	60 - 119
Styrene	<5.0		50.0	51.0		ug/L		102	71 - 117
tert-Butylbenzene	<5.0		50.0	42.0		ug/L		84	61 - 119
1,1,1,2-Tetrachloroethane	<5.0		50.0	50.4		ug/L		101	64 - 118
1,1,2,2-Tetrachloroethane	<5.0		50.0	42.8		ug/L		86	63 - 122
Tetrachloroethene	<5.0		50.0	47.8		ug/L		96	70 - 117
Toluene	<5.0		50.0	50.6		ug/L		101	78 - 114
trans-1,2-Dichloroethene	<5.0		50.0	55.1		ug/L		106	80 - 119
1,2,3-Trichlorobenzene	<5.0		50.0	31.0		ug/L		62	45 - 129
1,2,4-Trichlorobenzene	<5.0		50.0	33.8		ug/L		68	38 - 138
1,1,1-Trichloroethane	<5.0		50.0	53.4		ug/L		107	68 - 121
1,1,2-Trichloroethane	<5.0		50.0	49.0		ug/L		98	75 - 115
Trichloroethene	<5.0		50.0	51.8		ug/L		104	66 - 120
Trichlorofluoromethane	<5.0		50.0	48.0		ug/L		96	46 - 157

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-19826-1 MS
Matrix: Water
Analysis Batch: 72223

Client Sample ID: MB-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	<5.0		50.0	46.0		ug/L		92	67 - 132
1,2,4-Trimethylbenzene	<5.0		50.0	48.2		ug/L		96	67 - 124
1,3,5-Trimethylbenzene	<5.0		50.0	46.8		ug/L		94	63 - 121
Vinyl chloride	71		50.0	107		ug/L		72	49 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*66 - 117*
Dibromofluoromethane (Surr)	*100*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 129*
Toluene-d8 (Surr)	*99*		*74 - 115*

Lab Sample ID: 240-19826-1 MSD
Matrix: Water
Analysis Batch: 72223

Client Sample ID: MB-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<5.0		50.0	51.6		ug/L		103	72 - 121	1	30
Bromobenzene	<5.0		50.0	51.0		ug/L		102	71 - 116	6	30
Bromochloromethane	<5.0		50.0	53.9		ug/L		108	73 - 121	4	30
Bromodichloromethane	<5.0		50.0	54.0		ug/L		108	67 - 120	0	30
Bromoform	<5.0		50.0	48.9		ug/L		98	32 - 128	2	30
Bromomethane	<5.0		50.0	48.6		ug/L		97	10 - 186	18	30
Carbon tetrachloride	<5.0		50.0	57.0		ug/L		114	59 - 129	1	30
Chlorobenzene	<5.0		50.0	48.4		ug/L		97	80 - 110	1	30
Chlorodibromomethane	<5.0		50.0	50.2		ug/L		100	56 - 118	0	30
Chloroethane	<5.0		50.0	52.3		ug/L		98	21 - 165	12	30
Chloroform	<5.0		50.0	50.6		ug/L		101	76 - 118	4	30
Chloromethane	<5.0		50.0	52.2		ug/L		104	33 - 132	9	30
2-Chlorotoluene	<5.0		50.0	49.4		ug/L		99	69 - 117	6	30
4-Chlorotoluene	<5.0		50.0	50.0		ug/L		100	71 - 116	4	30
cis-1,2-Dichloroethene	170		50.0	221	E	ug/L		108	70 - 120	1	30
1,2-Dibromo-3-Chloropropane	<10		50.0	42.0		ug/L		84	32 - 139	3	30
1,2-Dibromoethane	<5.0		50.0	46.5		ug/L		93	74 - 113	1	30
Dibromomethane	<5.0		50.0	53.5		ug/L		107	77 - 121	1	30
1,2-Dichlorobenzene	<5.0		50.0	48.0		ug/L		96	75 - 111	4	30
1,3-Dichlorobenzene	<5.0		50.0	46.5		ug/L		93	73 - 110	1	30
1,4-Dichlorobenzene	<5.0		50.0	46.3		ug/L		93	75 - 110	3	30
Dichlorodifluoromethane	<5.0		50.0	52.4		ug/L		105	17 - 128	5	30
1,1-Dichloroethane	8.2		50.0	61.1		ug/L		106	79 - 116	4	30
1,2-Dichloroethane	<5.0		50.0	52.8		ug/L		106	68 - 129	3	30
1,1-Dichloroethene	17		50.0	68.8		ug/L		103	74 - 135	1	30
1,2-Dichloropropane	<5.0		50.0	53.7		ug/L		107	78 - 115	6	30
1,3-Dichloropropane	<5.0		50.0	46.8		ug/L		94	74 - 118	1	30
2,2-Dichloropropane	<5.0		50.0	51.2		ug/L		102	38 - 127	1	30
1,1-Dichloropropene	<5.0		50.0	50.0		ug/L		100	80 - 114	0	30
Ethylbenzene	<5.0		50.0	48.7		ug/L		97	75 - 116	3	30
Hexachlorobutadiene	<5.0		50.0	31.0		ug/L		62	27 - 132	12	30
Isopropylbenzene	<5.0		50.0	47.0		ug/L		94	68 - 116	1	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-19826-1 MSD
Matrix: Water
Analysis Batch: 72223

Client Sample ID: MB-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	<5.0		50.0	53.5		ug/L		107	63 - 128	2	30
m-Xylene & p-Xylene	<10		100	99.1		ug/L		99	75 - 117	1	30
Naphthalene	<5.0		50.0	35.3		ug/L		71	15 - 158	26	30
n-Butylbenzene	<5.0		50.0	43.1		ug/L		86	56 - 127	3	30
N-Propylbenzene	<5.0		50.0	49.7		ug/L		99	64 - 124	1	30
o-Xylene	<5.0		50.0	49.8		ug/L		100	76 - 116	1	30
p-Isopropyltoluene	<5.0		50.0	47.5		ug/L		95	64 - 122	3	30
sec-Butylbenzene	<5.0		50.0	45.1		ug/L		90	60 - 119	4	30
Styrene	<5.0		50.0	51.1		ug/L		102	71 - 117	0	30
tert-Butylbenzene	<5.0		50.0	43.7		ug/L		87	61 - 119	4	30
1,1,1,2-Tetrachloroethane	<5.0		50.0	51.0		ug/L		102	64 - 118	1	30
1,1,2,2-Tetrachloroethane	<5.0		50.0	44.8		ug/L		90	63 - 122	4	30
Tetrachloroethene	<5.0		50.0	47.9		ug/L		96	70 - 117	0	30
Toluene	<5.0		50.0	48.7		ug/L		97	78 - 114	4	30
trans-1,2-Dichloroethene	<5.0		50.0	56.4		ug/L		109	80 - 119	2	30
1,2,3-Trichlorobenzene	<5.0		50.0	38.0		ug/L		76	45 - 129	20	30
1,2,4-Trichlorobenzene	<5.0		50.0	37.8		ug/L		76	38 - 138	11	30
1,1,1-Trichloroethane	<5.0		50.0	54.0		ug/L		108	68 - 121	1	30
1,1,2-Trichloroethane	<5.0		50.0	49.9		ug/L		100	75 - 115	2	30
Trichloroethene	<5.0		50.0	51.8		ug/L		104	66 - 120	0	30
Trichlorofluoromethane	<5.0		50.0	53.1		ug/L		106	46 - 157	10	30
1,2,3-Trichloropropane	<5.0		50.0	46.2		ug/L		92	67 - 132	1	30
1,2,4-Trimethylbenzene	<5.0		50.0	49.0		ug/L		98	67 - 124	2	30
1,3,5-Trimethylbenzene	<5.0		50.0	48.4		ug/L		97	63 - 121	3	30
Vinyl chloride	71		50.0	118		ug/L		95	49 - 130	10	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*66 - 117*
Dibromofluoromethane (Surr)	*100*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 129*
Toluene-d8 (Surr)	*98*		*74 - 115*

Lab Sample ID: MB 240-72267/5
Matrix: Water
Analysis Batch: 72267

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/16/13 14:17	1
Bromobenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
Bromochloromethane	<1.0		1.0		ug/L			01/16/13 14:17	1
Bromodichloromethane	<1.0		1.0		ug/L			01/16/13 14:17	1
Bromoform	<1.0		1.0		ug/L			01/16/13 14:17	1
Bromomethane	<1.0		1.0		ug/L			01/16/13 14:17	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/16/13 14:17	1
Chlorobenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/16/13 14:17	1
Chloroethane	<1.0		1.0		ug/L			01/16/13 14:17	1
Chloroform	<1.0		1.0		ug/L			01/16/13 14:17	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-72267/5
Matrix: Water
Analysis Batch: 72267

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<1.0		1.0		ug/L			01/16/13 14:17	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 14:17	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/16/13 14:17	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/16/13 14:17	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/16/13 14:17	1
Dibromomethane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/16/13 14:17	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,4-Dioxane	<50		50		ug/L			01/16/13 14:17	1
Ethylbenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/16/13 14:17	1
Isopropylbenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
Methylene Chloride	<1.0		1.0		ug/L			01/16/13 14:17	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/16/13 14:17	1
Naphthalene	<1.0		1.0		ug/L			01/16/13 14:17	1
n-Butylbenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
N-Propylbenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
o-Xylene	<1.0		1.0		ug/L			01/16/13 14:17	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/16/13 14:17	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
Styrene	<1.0		1.0		ug/L			01/16/13 14:17	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/16/13 14:17	1
Tetrachloroethene	<1.0		1.0		ug/L			01/16/13 14:17	1
Toluene	<1.0		1.0		ug/L			01/16/13 14:17	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/16/13 14:17	1
Trichloroethene	<1.0		1.0		ug/L			01/16/13 14:17	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/16/13 14:17	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/16/13 14:17	1
Vinyl chloride	<1.0		1.0		ug/L			01/16/13 14:17	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-72267/5
Matrix: Water
Analysis Batch: 72267

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*84*		*66 - 117*		*01/16/13 14:17*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 121*		*01/16/13 14:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 129*		*01/16/13 14:17*	*1*
Toluene-d8 (Surr)	*86*		*74 - 115*		*01/16/13 14:17*	*1*

Lab Sample ID: LCS 240-72267/4
Matrix: Water
Analysis Batch: 72267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	9.29		ug/L		93	83 - 112
Bromobenzene	10.0	9.33		ug/L		93	76 - 115
Bromochloromethane	10.0	9.82		ug/L		98	77 - 120
Bromodichloromethane	10.0	9.82		ug/L		98	72 - 121
Bromoform	10.0	10.3		ug/L		103	40 - 131
Bromomethane	10.0	8.10		ug/L		81	11 - 185
Carbon tetrachloride	10.0	10.7		ug/L		107	66 - 128
Chlorobenzene	10.0	9.26		ug/L		93	85 - 110
Chlorodibromomethane	10.0	9.71		ug/L		97	64 - 119
Chloroethane	10.0	8.53		ug/L		85	25 - 153
Chloroform	10.0	9.28		ug/L		93	79 - 117
Chloromethane	10.0	9.72		ug/L		97	44 - 126
2-Chlorotoluene	10.0	9.24		ug/L		92	76 - 116
4-Chlorotoluene	10.0	9.06		ug/L		91	77 - 115
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	80 - 113
1,2-Dibromo-3-Chloropropane	10.0	10.2		ug/L		102	42 - 136
1,2-Dibromoethane	10.0	9.54		ug/L		95	79 - 113
Dibromomethane	10.0	10.0		ug/L		100	81 - 120
1,2-Dichlorobenzene	10.0	9.33		ug/L		93	81 - 110
1,3-Dichlorobenzene	10.0	9.25		ug/L		92	80 - 110
1,4-Dichlorobenzene	10.0	8.85		ug/L		89	82 - 110
Dichlorodifluoromethane	10.0	9.33		ug/L		93	19 - 129
1,1-Dichloroethane	10.0	9.92		ug/L		99	82 - 115
1,2-Dichloroethane	10.0	9.71		ug/L		97	71 - 127
1,1-Dichloroethene	10.0	10.4		ug/L		104	78 - 131
1,2-Dichloropropane	10.0	9.67		ug/L		97	81 - 115
1,3-Dichloropropane	10.0	9.46		ug/L		95	79 - 116
2,2-Dichloropropane	10.0	10.0		ug/L		100	50 - 129
1,1-Dichloropropene	10.0	9.81		ug/L		98	83 - 114
Ethylbenzene	10.0	9.37		ug/L		94	83 - 112
Hexachlorobutadiene	10.0	9.17		ug/L		92	36 - 134
Isopropylbenzene	10.0	9.58		ug/L		96	75 - 114
Methylene Chloride	10.0	10.8		ug/L		108	66 - 131
m-Xylene & p-Xylene	20.0	19.1		ug/L		96	83 - 113
Naphthalene	10.0	8.88		ug/L		89	32 - 141
n-Butylbenzene	10.0	9.63		ug/L		96	66 - 125
N-Propylbenzene	10.0	9.87		ug/L		99	74 - 121
o-Xylene	10.0	9.38		ug/L		94	83 - 113

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-72267/4
Matrix: Water
Analysis Batch: 72267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
p-Isopropyltoluene	10.0	9.81		ug/L		98	74 - 120
sec-Butylbenzene	10.0	9.41		ug/L		94	70 - 117
Styrene	10.0	9.74		ug/L		97	79 - 114
tert-Butylbenzene	10.0	9.30		ug/L		93	71 - 115
1,1,1,2-Tetrachloroethane	10.0	9.48		ug/L		95	72 - 116
1,1,2,2-Tetrachloroethane	10.0	8.97		ug/L		90	68 - 118
Tetrachloroethene	10.0	9.42		ug/L		94	79 - 114
Toluene	10.0	9.02		ug/L		90	84 - 111
trans-1,2-Dichloroethene	10.0	10.2		ug/L		102	83 - 117
1,2,3-Trichlorobenzene	10.0	7.95		ug/L		79	54 - 126
1,2,4-Trichlorobenzene	10.0	8.92		ug/L		89	48 - 135
1,1,1-Trichloroethane	10.0	9.87		ug/L		99	74 - 118
1,1,2-Trichloroethane	10.0	9.48		ug/L		95	80 - 112
Trichloroethene	10.0	9.92		ug/L		99	76 - 117
Trichlorofluoromethane	10.0	10.3		ug/L		103	49 - 157
1,2,3-Trichloropropane	10.0	9.22		ug/L		92	73 - 129
1,2,4-Trimethylbenzene	10.0	9.54		ug/L		95	76 - 120
1,3,5-Trimethylbenzene	10.0	9.44		ug/L		94	72 - 118
Vinyl chloride	10.0	10.2		ug/L		102	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*66 - 117*
Dibromofluoromethane (Surr)	*89*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*92*		*63 - 129*
Toluene-d8 (Surr)	*89*		*74 - 115*

Lab Sample ID: MB 240-72385/5
Matrix: Water
Analysis Batch: 72385

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/17/13 12:24	1
Bromobenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
Bromochloromethane	<1.0		1.0		ug/L			01/17/13 12:24	1
Bromodichloromethane	<1.0		1.0		ug/L			01/17/13 12:24	1
Bromoform	<1.0		1.0		ug/L			01/17/13 12:24	1
Bromomethane	<1.0		1.0		ug/L			01/17/13 12:24	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/17/13 12:24	1
Chlorobenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/17/13 12:24	1
Chloroethane	<1.0		1.0		ug/L			01/17/13 12:24	1
Chloroform	<1.0		1.0		ug/L			01/17/13 12:24	1
Chloromethane	<1.0		1.0		ug/L			01/17/13 12:24	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 12:24	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/17/13 12:24	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/17/13 12:24	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/17/13 12:24	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-72385/5
Matrix: Water
Analysis Batch: 72385

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/17/13 12:24	1
2,2-Dichloropropane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,4-Dioxane	<50		50		ug/L			01/17/13 12:24	1
Ethylbenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/17/13 12:24	1
Isopropylbenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
Methylene Chloride	<1.0		1.0		ug/L			01/17/13 12:24	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/17/13 12:24	1
Naphthalene	<1.0		1.0		ug/L			01/17/13 12:24	1
n-Butylbenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
N-Propylbenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
o-Xylene	<1.0		1.0		ug/L			01/17/13 12:24	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/17/13 12:24	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
Styrene	<1.0		1.0		ug/L			01/17/13 12:24	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/17/13 12:24	1
Tetrachloroethene	<1.0		1.0		ug/L			01/17/13 12:24	1
Toluene	<1.0		1.0		ug/L			01/17/13 12:24	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/17/13 12:24	1
Trichloroethene	<1.0		1.0		ug/L			01/17/13 12:24	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/17/13 12:24	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/17/13 12:24	1
Vinyl chloride	<1.0		1.0		ug/L			01/17/13 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*66 - 117*		*01/17/13 12:24*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 121*		*01/17/13 12:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*63 - 129*		*01/17/13 12:24*	*1*
Toluene-d8 (Surr)	*90*		*74 - 115*		*01/17/13 12:24*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-72385/4
Matrix: Water
Analysis Batch: 72385

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.2		ug/L		102	83 - 112
Bromobenzene	10.0	10.3		ug/L		103	76 - 115
Bromochloromethane	10.0	10.1		ug/L		101	77 - 120
Bromodichloromethane	10.0	10.6		ug/L		106	72 - 121
Bromoform	10.0	9.46		ug/L		95	40 - 131
Bromomethane	10.0	9.10		ug/L		91	11 - 185
Carbon tetrachloride	10.0	11.7		ug/L		117	66 - 128
Chlorobenzene	10.0	9.50		ug/L		95	85 - 110
Chlorodibromomethane	10.0	9.90		ug/L		99	64 - 119
Chloroethane	10.0	9.36		ug/L		94	25 - 153
Chloroform	10.0	9.75		ug/L		98	79 - 117
Chloromethane	10.0	10.2		ug/L		102	44 - 126
2-Chlorotoluene	10.0	10.2		ug/L		102	76 - 116
4-Chlorotoluene	10.0	10.5		ug/L		105	77 - 115
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	80 - 113
1,2-Dibromo-3-Chloropropane	10.0	8.71		ug/L		87	42 - 136
1,2-Dibromoethane	10.0	9.25		ug/L		92	79 - 113
Dibromomethane	10.0	10.5		ug/L		105	81 - 120
1,2-Dichlorobenzene	10.0	9.66		ug/L		97	81 - 110
1,3-Dichlorobenzene	10.0	9.85		ug/L		98	80 - 110
1,4-Dichlorobenzene	10.0	9.42		ug/L		94	82 - 110
Dichlorodifluoromethane	10.0	12.3		ug/L		123	19 - 129
1,1-Dichloroethane	10.0	10.3		ug/L		103	82 - 115
1,2-Dichloroethane	10.0	10.0		ug/L		100	71 - 127
1,1-Dichloroethene	10.0	10.7		ug/L		107	78 - 131
1,2-Dichloropropane	10.0	10.5		ug/L		105	81 - 115
1,3-Dichloropropane	10.0	9.36		ug/L		94	79 - 116
2,2-Dichloropropane	10.0	10.6		ug/L		106	50 - 129
1,1-Dichloropropene	10.0	10.1		ug/L		101	83 - 114
Ethylbenzene	10.0	9.92		ug/L		99	83 - 112
Hexachlorobutadiene	10.0	6.84		ug/L		68	36 - 134
Isopropylbenzene	10.0	9.86		ug/L		99	75 - 114
Methylene Chloride	10.0	10.4		ug/L		104	66 - 131
m-Xylene & p-Xylene	20.0	20.2		ug/L		101	83 - 113
Naphthalene	10.0	6.66		ug/L		67	32 - 141
n-Butylbenzene	10.0	9.51		ug/L		95	66 - 125
N-Propylbenzene	10.0	10.9		ug/L		109	74 - 121
o-Xylene	10.0	9.91		ug/L		99	83 - 113
p-Isopropyltoluene	10.0	10.3		ug/L		103	74 - 120
sec-Butylbenzene	10.0	9.86		ug/L		99	70 - 117
Styrene	10.0	10.3		ug/L		103	79 - 114
tert-Butylbenzene	10.0	9.54		ug/L		95	71 - 115
1,1,1,2-Tetrachloroethane	10.0	9.93		ug/L		99	72 - 116
1,1,2,2-Tetrachloroethane	10.0	9.15		ug/L		91	68 - 118
Tetrachloroethene	10.0	9.76		ug/L		98	79 - 114
Toluene	10.0	9.67		ug/L		97	84 - 111
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	83 - 117
1,2,3-Trichlorobenzene	10.0	7.43		ug/L		74	54 - 126

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-72385/4
Matrix: Water
Analysis Batch: 72385

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	10.0	7.85		ug/L		79	48 - 135
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	74 - 118
1,1,2-Trichloroethane	10.0	9.49		ug/L		95	80 - 112
Trichloroethene	10.0	10.7		ug/L		107	76 - 117
Trichlorofluoromethane	10.0	10.5		ug/L		105	49 - 157
1,2,3-Trichloropropane	10.0	9.47		ug/L		95	73 - 129
1,2,4-Trimethylbenzene	10.0	10.4		ug/L		104	76 - 120
1,3,5-Trimethylbenzene	10.0	10.4		ug/L		104	72 - 118
Vinyl chloride	10.0	9.62		ug/L		96	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*66 - 117*
Dibromofluoromethane (Surr)	*98*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*94*		*63 - 129*
Toluene-d8 (Surr)	*94*		*74 - 115*

Lab Sample ID: MB 240-72514/5
Matrix: Water
Analysis Batch: 72514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			01/18/13 11:30	1
Bromobenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
Bromochloromethane	<1.0		1.0		ug/L			01/18/13 11:30	1
Bromodichloromethane	<1.0		1.0		ug/L			01/18/13 11:30	1
Bromoform	<1.0		1.0		ug/L			01/18/13 11:30	1
Bromomethane	<1.0		1.0		ug/L			01/18/13 11:30	1
Carbon tetrachloride	<1.0		1.0		ug/L			01/18/13 11:30	1
Chlorobenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
Chlorodibromomethane	<1.0		1.0		ug/L			01/18/13 11:30	1
Chloroethane	<1.0		1.0		ug/L			01/18/13 11:30	1
Chloroform	<1.0		1.0		ug/L			01/18/13 11:30	1
Chloromethane	<1.0		1.0		ug/L			01/18/13 11:30	1
2-Chlorotoluene	<1.0		1.0		ug/L			01/18/13 11:30	1
4-Chlorotoluene	<1.0		1.0		ug/L			01/18/13 11:30	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			01/18/13 11:30	1
1,2-Dibromoethane	<1.0		1.0		ug/L			01/18/13 11:30	1
Dibromomethane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,1-Dichloroethane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,2-Dichloroethane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,1-Dichloroethene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,2-Dichloropropane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,3-Dichloropropane	<1.0		1.0		ug/L			01/18/13 11:30	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-72514/5
Matrix: Water
Analysis Batch: 72514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,1-Dichloropropene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,4-Dioxane	<50		50		ug/L			01/18/13 11:30	1
Ethylbenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
Hexachlorobutadiene	<1.0		1.0		ug/L			01/18/13 11:30	1
Isopropylbenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
Methylene Chloride	<1.0		1.0		ug/L			01/18/13 11:30	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			01/18/13 11:30	1
Naphthalene	<1.0		1.0		ug/L			01/18/13 11:30	1
n-Butylbenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
N-Propylbenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
o-Xylene	<1.0		1.0		ug/L			01/18/13 11:30	1
p-Isopropyltoluene	<1.0		1.0		ug/L			01/18/13 11:30	1
sec-Butylbenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
Styrene	<1.0		1.0		ug/L			01/18/13 11:30	1
tert-Butylbenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			01/18/13 11:30	1
Tetrachloroethene	<1.0		1.0		ug/L			01/18/13 11:30	1
Toluene	<1.0		1.0		ug/L			01/18/13 11:30	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			01/18/13 11:30	1
Trichloroethene	<1.0		1.0		ug/L			01/18/13 11:30	1
Trichlorofluoromethane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			01/18/13 11:30	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			01/18/13 11:30	1
Vinyl chloride	<1.0		1.0		ug/L			01/18/13 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*66 - 117*		*01/18/13 11:30*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 121*		*01/18/13 11:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*63 - 129*		*01/18/13 11:30*	*1*
Toluene-d8 (Surr)	*93*		*74 - 115*		*01/18/13 11:30*	*1*

Lab Sample ID: LCS 240-72514/4
Matrix: Water
Analysis Batch: 72514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	9.95		ug/L		99	83 - 112
Bromobenzene	10.0	10.1		ug/L		101	76 - 115
Bromochloromethane	10.0	9.71		ug/L		97	77 - 120
Bromodichloromethane	10.0	10.6		ug/L		106	72 - 121
Bromoform	10.0	9.94		ug/L		99	40 - 131

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-72514/4
Matrix: Water
Analysis Batch: 72514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	10.0	7.34		ug/L		73	11 - 185
Carbon tetrachloride	10.0	11.4		ug/L		114	66 - 128
Chlorobenzene	10.0	9.94		ug/L		99	85 - 110
Chlorodibromomethane	10.0	10.2		ug/L		102	64 - 119
Chloroethane	10.0	8.43		ug/L		84	25 - 153
Chloroform	10.0	9.50		ug/L		95	79 - 117
Chloromethane	10.0	9.29		ug/L		93	44 - 126
2-Chlorotoluene	10.0	9.83		ug/L		98	76 - 116
4-Chlorotoluene	10.0	10.4		ug/L		104	77 - 115
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	80 - 113
1,2-Dibromo-3-Chloropropane	10.0	8.45		ug/L		84	42 - 136
1,2-Dibromoethane	10.0	9.44		ug/L		94	79 - 113
Dibromomethane	10.0	10.0		ug/L		100	81 - 120
1,2-Dichlorobenzene	10.0	9.91		ug/L		99	81 - 110
1,3-Dichlorobenzene	10.0	9.83		ug/L		98	80 - 110
1,4-Dichlorobenzene	10.0	9.66		ug/L		97	82 - 110
Dichlorodifluoromethane	10.0	11.9		ug/L		119	19 - 129
1,1-Dichloroethane	10.0	9.93		ug/L		99	82 - 115
1,2-Dichloroethane	10.0	9.89		ug/L		99	71 - 127
1,1-Dichloroethene	10.0	10.1		ug/L		101	78 - 131
1,2-Dichloropropane	10.0	10.4		ug/L		104	81 - 115
1,3-Dichloropropane	10.0	9.47		ug/L		95	79 - 116
2,2-Dichloropropane	10.0	11.0		ug/L		110	50 - 129
1,1-Dichloropropene	10.0	10.0		ug/L		100	83 - 114
Ethylbenzene	10.0	10.2		ug/L		102	83 - 112
Hexachlorobutadiene	10.0	7.08		ug/L		71	36 - 134
Isopropylbenzene	10.0	10.1		ug/L		101	75 - 114
Methylene Chloride	10.0	9.75		ug/L		98	66 - 131
m-Xylene & p-Xylene	20.0	21.1		ug/L		105	83 - 113
Naphthalene	10.0	6.56		ug/L		66	32 - 141
n-Butylbenzene	10.0	9.75		ug/L		98	66 - 125
N-Propylbenzene	10.0	10.5		ug/L		105	74 - 121
o-Xylene	10.0	10.6		ug/L		106	83 - 113
p-Isopropyltoluene	10.0	10.5		ug/L		105	74 - 120
sec-Butylbenzene	10.0	10.0		ug/L		100	70 - 117
Styrene	10.0	10.6		ug/L		106	79 - 114
tert-Butylbenzene	10.0	10.4		ug/L		104	71 - 115
1,1,1,2-Tetrachloroethane	10.0	10.5		ug/L		105	72 - 116
1,1,2,2-Tetrachloroethane	10.0	8.46		ug/L		85	68 - 118
Tetrachloroethene	10.0	10.2		ug/L		102	79 - 114
Toluene	10.0	10.2		ug/L		102	84 - 111
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	83 - 117
1,2,3-Trichlorobenzene	10.0	7.48		ug/L		75	54 - 126
1,2,4-Trichlorobenzene	10.0	8.09		ug/L		81	48 - 135
1,1,1-Trichloroethane	10.0	10.6		ug/L		106	74 - 118
1,1,2-Trichloroethane	10.0	9.98		ug/L		100	80 - 112
Trichloroethene	10.0	10.1		ug/L		101	76 - 117
Trichlorofluoromethane	10.0	9.88		ug/L		99	49 - 157

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-72514/4
Matrix: Water
Analysis Batch: 72514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,3-Trichloropropane			10.0	8.72		ug/L		87	73 - 129		
1,2,4-Trimethylbenzene			10.0	10.4		ug/L		104	76 - 120		
1,3,5-Trimethylbenzene			10.0	10.3		ug/L		103	72 - 118		
Vinyl chloride			10.0	8.76		ug/L		88	53 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*66 - 117*
Dibromofluoromethane (Surr)	*99*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*93*		*63 - 129*
Toluene-d8 (Surr)	*101*		*74 - 115*

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-72393/5
Matrix: Water
Analysis Batch: 72393

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			01/17/13 12:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*74 - 120*		*01/17/13 12:55*	*1*

Lab Sample ID: LCS 240-72393/3
Matrix: Water
Analysis Batch: 72393

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			10.0	9.46		ug/L		95	59 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*82*		*74 - 120*

Lab Sample ID: 240-19826-15 MS
Matrix: Water
Analysis Batch: 72393

Client Sample ID: MW-25
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	<25		125	119		ug/L		91	50 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*78*		*74 - 120*

Method: 8260B SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-19826-15 MSD — **Client Sample ID: MW-25**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72393

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	<25		125	139		ug/L		107	50 - 150	15	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*83*		*74 - 120*

Lab Sample ID: MB 240-72530/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72530

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			01/18/13 13:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*74 - 120*		*01/18/13 13:00*	*1*

Lab Sample ID: LCS 240-72530/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72530

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			10.0	10.3		ug/L		103	59 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*83*		*74 - 120*

Lab Sample ID: 240-19826-19 MS — **Client Sample ID: MW-14**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72530

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	<20		100	106		ug/L		106	50 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*82*		*74 - 120*

Lab Sample ID: 240-19826-19 MSD — **Client Sample ID: MW-14**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 72530

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	<20		100	113		ug/L		113	50 - 150	7	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*84*		*74 - 120*

GC/MS VOA

Analysis Batch: 72223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19826-1	MB-2	Total/NA	Water	8260B	
240-19826-1 MS	MB-2	Total/NA	Water	8260B	
240-19826-1 MSD	MB-2	Total/NA	Water	8260B	
240-19826-3	SEEP-G	Total/NA	Water	8260B	
240-19826-4	SEEP-2	Total/NA	Water	8260B	
240-19826-5	SEEP-I	Total/NA	Water	8260B	
240-19826-6	SEEP-L	Total/NA	Water	8260B	
240-19826-7	SEEP-B	Total/NA	Water	8260B	
240-19826-9	MB-3	Total/NA	Water	8260B	
240-19826-10	MB15	Total/NA	Water	8260B	
240-19826-11	MB-5	Total/NA	Water	8260B	
240-19826-12	MB-16	Total/NA	Water	8260B	
LCS 240-72223/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-72223/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 72267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19826-13	MW-28	Total/NA	Water	8260B	
240-19826-14	MW-27	Total/NA	Water	8260B	
240-19826-16	EB-1	Total/NA	WQ	8260B	
240-19826-17	MW-20	Total/NA	Water	8260B	
LCS 240-72267/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-72267/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 72385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19826-2	SEEP-H	Total/NA	Water	8260B	
240-19826-8	DUP-1	Total/NA	Water	8260B	
240-19826-15	MW-25	Total/NA	Water	8260B	
240-19826-18	MW-22	Total/NA	Water	8260B	
240-19826-19	MW-14	Total/NA	Water	8260B	
240-19826-20	MW-19	Total/NA	Water	8260B	
240-19826-21	DUP-2	Total/NA	Water	8260B	
240-19826-22	MW-10	Total/NA	Water	8260B	
240-19826-24	MW-3	Total/NA	Water	8260B	
240-19826-25	TRIP BLANK	Total/NA	WQ	8260B	
LCS 240-72385/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-72385/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 72393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19826-15	MW-25	Total/NA	Water	8260B SIM	
240-19826-15 MS	MW-25	Total/NA	Water	8260B SIM	
240-19826-15 MSD	MW-25	Total/NA	Water	8260B SIM	
LCS 240-72393/3	Lab Control Sample	Total/NA	Water	8260B SIM	
MB 240-72393/5	Method Blank	Total/NA	Water	8260B SIM	

Analysis Batch: 72514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19826-23	MW-5	Total/NA	Water	8260B	
LCS 240-72514/4	Lab Control Sample	Total/NA	Water	8260B	

GC/MS VOA (Continued)

Analysis Batch: 72514 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-72514/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 72530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-19826-13	MW-28	Total/NA	Water	8260B SIM	
240-19826-14	MW-27	Total/NA	Water	8260B SIM	
240-19826-17	MW-20	Total/NA	Water	8260B SIM	
240-19826-19	MW-14	Total/NA	Water	8260B SIM	
240-19826-19 MS	MW-14	Total/NA	Water	8260B SIM	
240-19826-19 MSD	MW-14	Total/NA	Water	8260B SIM	
240-19826-20	MW-19	Total/NA	Water	8260B SIM	
240-19826-23	MW-5	Total/NA	Water	8260B SIM	
LCS 240-72530/3	Lab Control Sample	Total/NA	Water	8260B SIM	
MB 240-72530/5	Method Blank	Total/NA	Water	8260B SIM	

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: MB-2
Lab Sample ID: 240-19826-1
Date Collected: 01/08/13 13:18
Matrix: Water
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	72223	01/16/13 13:35	RQ	TAL NC

Client Sample ID: SEEP-H
Lab Sample ID: 240-19826-2
Date Collected: 01/08/13 13:30
Matrix: Water
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	72385	01/17/13 19:23	RQ	TAL NC

Client Sample ID: SEEP-G
Lab Sample ID: 240-19826-3
Date Collected: 01/08/13 13:45
Matrix: Water
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72223	01/16/13 17:51	RQ	TAL NC

Client Sample ID: SEEP-2
Lab Sample ID: 240-19826-4
Date Collected: 01/08/13 13:55
Matrix: Water
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72223	01/16/13 18:12	RQ	TAL NC

Client Sample ID: SEEP-I
Lab Sample ID: 240-19826-5
Date Collected: 01/08/13 14:08
Matrix: Water
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72223	01/16/13 18:34	RQ	TAL NC

Client Sample ID: SEEP-L
Lab Sample ID: 240-19826-6
Date Collected: 01/08/13 14:18
Matrix: Water
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72223	01/16/13 18:55	RQ	TAL NC

Client Sample ID: SEEP-B — **Lab Sample ID: 240-19826-7**
Date Collected: 01/08/13 16:27 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72223	01/16/13 19:17	RQ	TAL NC

Client Sample ID: DUP-1 — **Lab Sample ID: 240-19826-8**
Date Collected: 01/08/13 12:00 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	72385	01/17/13 19:44	RQ	TAL NC

Client Sample ID: MB-3 — **Lab Sample ID: 240-19826-9**
Date Collected: 01/08/13 15:25 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72223	01/16/13 20:00	RQ	TAL NC

Client Sample ID: MB15 — **Lab Sample ID: 240-19826-10**
Date Collected: 01/08/13 15:38 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72223	01/16/13 20:21	RQ	TAL NC

Client Sample ID: MB-5 — **Lab Sample ID: 240-19826-11**
Date Collected: 01/08/13 15:59 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72223	01/16/13 20:42	RQ	TAL NC

Client Sample ID: MB-16 — **Lab Sample ID: 240-19826-12**
Date Collected: 01/08/13 16:12 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72223	01/16/13 21:03	RQ	TAL NC

Client Sample ID: MW-28 — **Lab Sample ID: 240-19826-13**
Date Collected: 01/09/13 11:25 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72267	01/16/13 19:37	RQ	TAL NC
Total/NA	Analysis	8260B SIM		1	72530	01/18/13 14:37	LW	TAL NC

Client Sample ID: MW-27 — **Lab Sample ID: 240-19826-14**
Date Collected: 01/09/13 12:16 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72267	01/16/13 19:59	RQ	TAL NC
Total/NA	Analysis	8260B SIM		1	72530	01/18/13 15:01	LW	TAL NC

Client Sample ID: MW-25 — **Lab Sample ID: 240-19826-15**
Date Collected: 01/09/13 17:03 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		125	72385	01/17/13 20:05	RQ	TAL NC
Total/NA	Analysis	8260B SIM		12.5	72393	01/17/13 13:43	LW	TAL NC

Client Sample ID: EB-1 — **Lab Sample ID: 240-19826-16**
Date Collected: 01/10/13 08:45 — **Matrix: WQ**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72267	01/16/13 20:44	RQ	TAL NC

Client Sample ID: MW-20 — **Lab Sample ID: 240-19826-17**
Date Collected: 01/10/13 13:12 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		9.091	72267	01/16/13 21:06	RQ	TAL NC
Total/NA	Analysis	8260B SIM		1	72530	01/18/13 15:25	LW	TAL NC

Client Sample ID: MW-22 — **Lab Sample ID: 240-19826-18**
Date Collected: 01/10/13 16:33 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72385	01/17/13 15:50	RQ	TAL NC

Client Sample ID: MW-14 — **Lab Sample ID: 240-19826-19**
Date Collected: 01/09/13 11:55 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	72385	01/17/13 16:11	RQ	TAL NC
Total/NA	Analysis	8260B SIM		10	72530	01/18/13 13:24	LW	TAL NC

Client Sample ID: MW-19 — **Lab Sample ID: 240-19826-20**
Date Collected: 01/09/13 14:45 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	72385	01/17/13 20:27	RQ	TAL NC
Total/NA	Analysis	8260B SIM		1	72530	01/18/13 15:50	LW	TAL NC

Client Sample ID: DUP-2 — **Lab Sample ID: 240-19826-21**
Date Collected: 01/09/13 12:00 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	72385	01/17/13 20:48	RQ	TAL NC

Client Sample ID: MW-10 — **Lab Sample ID: 240-19826-22**
Date Collected: 01/10/13 11:15 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72385	01/17/13 15:04	RQ	TAL NC

Client Sample ID: MW-5 — **Lab Sample ID: 240-19826-23**
Date Collected: 01/10/13 14:35 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		8	72514	01/18/13 12:34	LE	TAL NC
Total/NA	Analysis	8260B SIM		20	72530	01/18/13 13:48	LW	TAL NC

Client Sample ID: MW-3 — **Lab Sample ID: 240-19826-24**
Date Collected: 01/10/13 17:25 — **Matrix: Water**
Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72385	01/17/13 16:32	RQ	TAL NC

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Client Sample ID: TRIP BLANK — **Lab Sample ID: 240-19826-25**

Date Collected: 01/08/13 00:00 — **Matrix: WQ**

Date Received: 01/12/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	72385	01/17/13 21:09	RQ	TAL NC

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE

TestAmerica Job ID: 240-19826-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-13
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAP	2	OH001	06-30-13
New York	NELAP	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Wisconsin	State Program	5	999518190	08-31-13

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact					
Company Name: AMEC	Client Project Manager: Rhonda Quinn	Site Contact:	Lab Contact:	COC No: 55634	
Address: 1075 Big Shanty RD, NW	Telephone:	Telephone:	Telephone:	1 of 3 COCs	
City/State/Zip: Kennesaw / Georgia / 30144	Email:	Analysis Turnaround Time (CALENDAR DAYS or WORKING DAYS)		For lab use only	
Phone: 770-421-3400		TAT if different from below _____		Walk-in client ☐	
Project Name: TK Louisville	Method of Shipment/Carrier:	☐ 3 weeks		Lab pickup ☐	
Project Number: 6122-09-0322	Shipping/Tracking No:	☐ 2 weeks		Lab sampling ☐	
PO#		☒ 1 week		Job/SDG No:	
		☐ 2 days			
		☐ 1 day			

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	Analyses: Project VOCs 8260B	SIM 1,4 Dioxane	Sample Specific Notes / Special Instructions:
MB-2	1-8-13	1318		X						X					N	G	3		
SeeP-H	1-8-13	1330		X						X					N	G	3		
SeeP-G	1-8-13	1345		X						X					N	G	3		
SeeP-2	1-8-13	1355		X						X					N	G	3		
SeeP-I	1-8-13	1409		X						X					N	G	3		
SeeP-L	1-8-13	1418		X						X					N	G	3		
SeeP-B	1-8-13	1627		X						X					N	G	3		
Dup-1	1-8-13	1200		X						X					N	G	3		
MB-3	1-8-13	1525		X						X					N	G	3		
MB-15	1-8-13	1538		X						X					N	G	3		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

	Company	Date/Time	Received by	Company	Date/Time
Relinquished by:	AMEC	1-11-13 / 1450		TA	1/11/13 1450
Relinquished by:	TA	1/11/13 1600		Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA	Date/Time: 1/12/13 1000

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: AMEC	Client Project Manager: Rhonda Quinn	Site Contact:	Lab Contact:	COC No: 55635
Address: 1075 Big Shanty RD NW	Telephone:	Telephone:	Telephone:	2 of 3 COCs
City/State/Zip: Kennesaw/Georgia/30144	Email:	Analysis Turnaround Time (in BUS days)		For lab use only
Phone: 770-421-3400		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☒ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: TK Louisville	Method of Shipment/Carrier:			
Project Number: 6122-09-0322	Shipping/Tracking No:			Job/SDG No:
PO#				

Analyses

Sample Identification	Sample Date	SampleTime	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	Project VOCs 8260B	SIM 1,4 Dioxane	Sample Specific Notes / Special Instructions:
MB-5	1-8-13	1559		X						X					N	G	3		
MB-16	1-8-13	1612		X						X							3		
MW-28	1-9-13	1125		X						X							3	3	
MW-27	1-9-13	1216		X						X							3	3	
MW-25	1-9-13	1703		X						X							3	3	
EB-1	1-10-13	0845		X						X							3		
MW-20	1-10-13	1312		X						X							3	3	
MW-22	1-10-13	1633		X						X							3		
MW-14	1-9-13	1155		X						X							3	3	
MW-19	1-9-13	1445		X						X							3	3	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	AMEC	1-11-13 / 1450	[signature]	TA	1/13/13 1450
[signature]	TA	1/11/13 1600			
			Received in Laboratory by: [signature]	TA	1/12/13 1000

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TAL 0018- 1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: AMEC	Client Project Manager: Rhonda Quinn	Site Contact:	Lab Contact:	COC No: 55636
Address: 1075 Big Shanty RD. NW	Telephone:	Telephone:	Telephone:	3 of 3 COCs
City/State/Zip: Kennesaw / Georgia / 30144	Email:	Analysis Turnaround Time (in BUS days)		For lab use only
Phone: 770-421-3400		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☒ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: TK Louisville	Method of Shipment/Carrier:			
Project Number: 6122-09-0322	Shipping/Tracking No:			Job/SDG No:
PO#				

Analyses

Sample Identification	Sample Date	SampleTime	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	Project VOCs 8260B	SIM 1,4 Dioxane	Sample Specific Notes / Special Instructions:
DUP-2	1-9-13	1200		X						X					N	G	3		
MW-10	1-10-13	1115		X						X							3		
MW-5	1-10-13	1435		X						X							3	3	
MW-3	1-10-13	1725		X						X							3		
trip Blank				X						X							3		

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	AMEC	1-11-13 / 1450	[signature]	TA	1/11/13 1500 MG 1450
[signature]	TA	1/11/13 1600			
			Received in Laboratory by: [signature]	TA	1/12/13 1000

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TAL 0018- 1 (04/10)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 19826

Client AMEC Site Name TK-Louisville By: (Signature)

Cooler Received on 1/12/13 Opened on 1-14-13

FedEx: 1st Grd (Exp) UPS FAS Stetson (Client Drop Off) TestAmerica Courier Other

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) (Foam) Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF -2 °C) Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	☐ Multiple on Back
IR GUN# 4G	(CF 0 °C) Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	
IR GUN# 5G	(CF 0 °C) Observed Sample Temp. ____ °C	Corrected Sample Temp. ____ °C	
IR GUN# 8	(CF 0 °C) Observed Sample Temp. 1.6 °C	Corrected Sample Temp. 1.6 °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? Yes No (NA)
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container.

Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ______________________________ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 051012-H2SO4; Sodium Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? ____________________

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

From: Pietras, Nathan
To: Quinn, Rhonda R
Cc: Brooks, Kris
Subject: RE: Thermo King Louisville follow up data
Date: Monday, February 25, 2013 3:29:01 PM

Rhonda
We did not have any undiluted runs, but we did have some less dilute runs. Please see below:

	Result (ug/L)	Reporting limit (ug/L)	Dilution Factor
Seep H (Lab ID# 240-19826-2)			
1,1,1-Trichloroethane	18	13	13
1,1-Dichloroethane	ND	13	13
1,1-Dichloroethene	85	13	13
Toluene	ND	13	13
Vinyl Chloride	ND	13	13
MW-14 (Lab ID# 240-19826-19)			
1,1-Dichloroethene	66	63	63
Tetrachloroethene (PCE)	ND	63	63
Vinyl Chloride	ND	63	63
MW-19 (Lab ID# 240-19826-20)			
1,1-Dichloroethene	34 J	140	140
Cis-1,2-Dichloroethene	ND	140	140
Tetrachloroethene (PCE)	ND	140	140
Vinyl Chloride	ND	140	140
MW-20 (Lab ID# 240-19826-17)			
1,1-Dichloroethene	4.6 J	9.1	9.1
Trichloroethene (TCE)	ND	9.1	9.1
Vinyl Chloride	ND	9.1	9.1
MW-25 (Lab ID# 240-19826-15)			
1,1-Dichloroethene	26 J	77	77
Vinyl Chloride	24 J	77	77

Let me know if you need anything further.

Thanks
Nate

Georgia Department of Natural Resources

Environmental Protection Division
2 Martin Luther King Jr. Drive SE, Suite 1152 East Tower, Atlanta, Georgia 30334-9000
Judson H. Turner, Director
(404) 656-4713
FAX: (404) 651-5778

29 June 2012

Mr. Jeffrey C. Smith, Quality Assurance Specialist
TestAmerica Laboratories, Inc. North Canton
4101 Shuffel Street, NW
North Canton, OH 44720

RE: Laboratory Approval

Dear Mr. Smith:

I have received your June 29, 2012 communication requesting a renewal of your approval status. Please note that the Environmental Protection Division does not accredit or certify commercial laboratories (other than for drinking water) or issue certification, but rather we require commercial environmental laboratories to be approved under our Rules for Commercial Environmental Laboratories. You provided documentation that your laboratory is accredited by the State of Florida, Department of Health, Bureau of Laboratories (hereinafter, "Florida"), in accordance with NELAP. The accreditation is in the categories of Environmental Analyses for non-potable water, for solid and chemical materials, and for biological tissue (methyl mercury).

After reviewing the information provided in your letter and the attached documentation from Florida, approval is granted under our Rules for Commercial Environmental Laboratories for those individual parameters within the categories of (1) Non-potable Water, (2) Solid and Chemical Materials, and (3) Biological Tissue which you are certified by Florida. This approval is valid through June 30, 2013, which is the expiration date of your accreditation. To be approved after that date, your accreditation must be renewed.

I trust this response meets your needs; should you require further information, please do not hesitate to call me at (404) 651-5155.

Sincerely,

Ted V. Jackson, Manager
Drinking Water Program
Georgia Environmental Protection Division

State of Florida
Department of Health, Bureau of Public Health Laboratories

This is to certify that

E87225

TESTAMERICA - NORTH CANTON
4101 SHUFFEL ST NW
NORTH CANTON, OH 44720-6961

has complied with Florida Administrative Code 64E-1,
for the examination of environmental samples in the following categories

NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS, BIOLOGICAL TISSUE - METALS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Public Health Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: October 16, 2012 Expiration Date: June 30, 2013

Victor Johnson
Interim Director, Division of Emergency Preparedness and Community Support
Florida Department of Health
DH Form 1697, 7/04
NON-TRANSFERABLE E87225-44-10/16/2012
Supersedes all previously issued certificates

Laboratory Scope of Accreditation

Attachment to Certificate #: E87225-44, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: **E87225** EPA Lab Code: **OH00048** **(330) 497-9396**

E87225
TestAmerica - North Canton
4101 Shuffel St NW
North Canton, OH 44720-6961

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 624	Volatile Organics	NELAP	5/24/2010
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	5/24/2010
1,1,2,2-Tetrachloroethane	EPA 624	Volatile Organics	NELAP	3/18/2004
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,1,2-Trichloroethane	EPA 624	Volatile Organics	NELAP	3/18/2004
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,1-Dichloroethane	EPA 624	Volatile Organics	NELAP	3/18/2004
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,1-Dichloroethylene	EPA 624	Volatile Organics	NELAP	3/18/2004
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4,5-Tetrachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 625	Extractable Organics	NELAP	3/18/2004
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	3/18/2004
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	3/18/2004
1,2-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	3/18/2004
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Dichloroethane	EPA 624	Volatile Organics	NELAP	3/18/2004
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,2-Dichloropropane	EPA 624	Volatile Organics	NELAP	3/18/2004
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,2-Dinitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	3/18/2004
1,3-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	3/18/2004
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87225-44, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: **E87225** EPA Lab Code: **OH00048** **(330) 497-9396**

E87225
TestAmerica - North Canton
4101 Shuffel St NW
North Canton, OH 44720-6961

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	3/18/2004
1,4-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	3/18/2004
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Dinitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Naphthoquinone	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Phenylenediamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,3,4,6-Tetrachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,5-T	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	6/22/2012
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trichlorophenol	EPA 625	Extractable Organics	NELAP	3/18/2004
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,4-D	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	4/7/2008
2,4-DB	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4-Dichlorophenol	EPA 625	Extractable Organics	NELAP	3/18/2004
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,4-Dimethylphenol	EPA 625	Extractable Organics	NELAP	3/18/2004
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,4-Dinitrophenol	EPA 625	Extractable Organics	NELAP	3/18/2004
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,4-Dinitrotoluene (2,4-DNT)	EPA 625	Extractable Organics	NELAP	3/18/2004
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dinitrotoluene (2,6-DNT)	EPA 625	Extractable Organics	NELAP	3/18/2004
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Acetylaminofluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloroethyl vinyl ether	EPA 624	Volatile Organics	NELAP	3/18/2004
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	3/18/2004
2-Chloronaphthalene	EPA 625	Extractable Organics	NELAP	3/18/2004
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Chlorophenol	EPA 625	Extractable Organics	NELAP	3/18/2004

Laboratory Scope of Accreditation

Attachment to Certificate #: E87225-44, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: **E87225** EPA Lab Code: **OH00048** **(330) 497-9396**

E87225
TestAmerica - North Canton
4101 Shuffel St NW
North Canton, OH 44720-6961

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Methyl-4,6-dinitrophenol	EPA 625	Extractable Organics	NELAP	3/18/2004
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylphenol (o-Cresol)	EPA 625	Extractable Organics	NELAP	1/10/2011
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrophenol	EPA 625	Extractable Organics	NELAP	3/18/2004
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Picoline (2-Methylpyridine)	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobenzidine	EPA 625	Extractable Organics	NELAP	3/18/2004
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	1/10/2011
3-Methylcholanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4,4'-DDD	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
4,4'-DDE	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
4,4'-DDT	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
4,4'-Methylenebis(2-chloroaniline)	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Aminobiphenyl	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Bromophenyl phenyl ether	EPA 625	Extractable Organics	NELAP	3/18/2004
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloro-3-methylphenol	EPA 625	Extractable Organics	NELAP	3/18/2004
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorophenyl phenylether	EPA 625	Extractable Organics	NELAP	3/18/2004
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Dimethyl aminoazobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87225-44, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: **E87225** EPA Lab Code: **OH00048** **(330) 497-9396**

E87225
TestAmerica - North Canton
4101 Shuffel St NW
North Canton, OH 44720-6961

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Methylphenol (p-Cresol)	EPA 625	Extractable Organics	NELAP	4/30/2008
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrophenol	EPA 625	Extractable Organics	NELAP	3/18/2004
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
5-Nitro-o-toluidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
7,12-Dimethylbenz(a) anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
a,a-Dimethylphenethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthene	EPA 625	Extractable Organics	NELAP	3/18/2004
Acenaphthene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Acenaphthylene	EPA 625	Extractable Organics	NELAP	3/18/2004
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Acetone	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetophenone	EPA 625	Extractable Organics	NELAP	4/30/2008
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acetylene	RSK-175	Volatile Organics	NELAP	1/10/2011
Acrolein (Propenal)	EPA 624	Volatile Organics	NELAP	3/18/2004
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Acrylonitrile	EPA 624	Volatile Organics	NELAP	3/18/2004
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	3/18/2004
Aldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Alkalinity as CaCO3	EPA 310.1	General Chemistry	NELAP	4/29/2004
Alkalinity as CaCO3	SM 2320 B	General Chemistry	NELAP	10/7/2002
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aluminum	EPA 200.7	Metals	NELAP	3/18/2004
Aluminum	EPA 200.8	Metals	NELAP	3/18/2004
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	7/1/2003
Amenable cyanide	EPA 9012	General Chemistry	NELAP	7/1/2003
Amenable cyanide	SM 4500-CN- G	General Chemistry	NELAP	4/30/2008
Ammonia as N	EPA 350.2	General Chemistry	NELAP	4/29/2004

Laboratory Scope of Accreditation

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State Laboratory ID: **E87225** EPA Lab Code: **OH00048** **(330) 497-9396**

E87225
TestAmerica - North Canton
4101 Shuffel St NW
North Canton, OH 44720-6961

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Ammonia as N	EPA 350.3	General Chemistry	NELAP	4/29/2004
Ammonia as N	SM 4500-NH3 E (18th Ed.)/TITR	General Chemistry	NELAP	11/13/2007
Ammonia as N	SM 4500-NH3 F (18th Ed.)/ISE	General Chemistry	NELAP	4/30/2008
Aniline	EPA 625	Extractable Organics	NELAP	4/30/2008
Aniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 625	Extractable Organics	NELAP	3/18/2004
Anthracene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Antimony	EPA 200.7	Metals	NELAP	3/18/2004
Antimony	EPA 200.8	Metals	NELAP	3/18/2004
Antimony	EPA 6010	Metals	NELAP	4/29/2004
Antimony	EPA 6020	Metals	NELAP	4/29/2004
Aramite	EPA 8270	Extractable Organics	NELAP	7/1/2003
Aroclor-1016 (PCB-1016)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1221 (PCB-1221)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/15/2004
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	5/15/2004
Aroclor-1232 (PCB-1232)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1242 (PCB-1242)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1248 (PCB-1248)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1254 (PCB-1254)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1260 (PCB-1260)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Arsenic	EPA 200.7	Metals	NELAP	3/18/2004
Arsenic	EPA 200.8	Metals	NELAP	5/15/2007
Arsenic	EPA 6010	Metals	NELAP	4/29/2004
Arsenic	EPA 6020	Metals	NELAP	5/15/2007
Barium	EPA 200.7	Metals	NELAP	3/18/2004
Barium	EPA 200.8	Metals	NELAP	3/18/2004
Barium	EPA 6010	Metals	NELAP	4/29/2004
Barium	EPA 6020	Metals	NELAP	4/29/2004
Benzene	EPA 624	Volatile Organics	NELAP	3/18/2004

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Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Benzidine	EPA 625	Extractable Organics	NELAP	3/18/2004
Benzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 625	Extractable Organics	NELAP	3/18/2004
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Benzo(a)pyrene	EPA 625	Extractable Organics	NELAP	3/18/2004
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Benzo(b)fluoranthene	EPA 625	Extractable Organics	NELAP	3/18/2004
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Benzo(g,h,i)perylene	EPA 625	Extractable Organics	NELAP	3/18/2004
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Benzo(k)fluoranthene	EPA 625	Extractable Organics	NELAP	3/18/2004
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Beryllium	EPA 200.7	Metals	NELAP	3/18/2004
Beryllium	EPA 200.8	Metals	NELAP	3/18/2004
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	7/1/2003
beta-BHC (beta-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Biochemical oxygen demand	EPA 405.1	General Chemistry	NELAP	4/29/2004
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	11/13/2007
bis(2-Chloroethoxy)methane	EPA 625	Extractable Organics	NELAP	3/18/2004
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	3/18/2004
bis(2-Chloroethyl) ether	EPA 625	Extractable Organics	NELAP	3/18/2004
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 625	Extractable Organics	NELAP	3/18/2004
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	3/18/2004
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 625	Extractable Organics	NELAP	3/18/2004
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	3/18/2004
Boron	EPA 200.7	Metals	NELAP	10/7/2002
Boron	EPA 6010	Metals	NELAP	7/1/2003
Boron	EPA 6020	Metals	NELAP	8/3/2005
Bromide	EPA 300.0	General Chemistry	NELAP	10/7/2002

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Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Bromide	EPA 9056	General Chemistry	NELAP	7/1/2003
Bromobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromodichloromethane	EPA 624	Volatile Organics	NELAP	3/18/2004
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Bromoform	EPA 624	Volatile Organics	NELAP	3/18/2004
Bromoform	EPA 8260	Volatile Organics	NELAP	3/18/2004
Butyl benzyl phthalate	EPA 625	Extractable Organics	NELAP	3/18/2004
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Cadmium	EPA 200.7	Metals	NELAP	3/18/2004
Cadmium	EPA 200.8	Metals	NELAP	3/18/2004
Cadmium	EPA 6010	Metals	NELAP	4/29/2004
Cadmium	EPA 6020	Metals	NELAP	4/29/2004
Calcium	EPA 200.7	Metals	NELAP	5/15/2004
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Calcium	EPA 6020	Metals	NELAP	8/3/2005
Carbazole	EPA 625	Extractable Organics	NELAP	4/30/2008
Carbazole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Carbon dioxide	RSK-175	Volatile Organics	NELAP	1/10/2011
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbon tetrachloride	EPA 624	Volatile Organics	NELAP	5/24/2010
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	5/24/2010
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	10/7/2002
Chemical oxygen demand	EPA 410.4	General Chemistry	NELAP	4/29/2004
Chemical oxygen demand	SM 5220 D	General Chemistry	NELAP	4/30/2008
Chlordane (tech.)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Chloride	EPA 300.0	General Chemistry	NELAP	4/29/2004
Chloride	EPA 325.2	General Chemistry	NELAP	4/29/2004
Chloride	EPA 9056	General Chemistry	NELAP	7/1/2003
Chloride	EPA 9251	General Chemistry	NELAP	7/1/2003
Chloride	SM 4500-Cl^- E	General Chemistry	NELAP	11/13/2007
Chlorobenzene	EPA 624	Volatile Organics	NELAP	3/18/2004
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Chlorobenzilate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Chlorobenzilate	EPA 8270	Extractable Organics	NELAP	7/1/2003

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E87225
TestAmerica - North Canton
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North Canton, OH 44720-6961

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chloroethane	EPA 624	Volatile Organics	NELAP	3/18/2004
Chloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Chloroform	EPA 624	Volatile Organics	NELAP	3/18/2004
Chloroform	EPA 8260	Volatile Organics	NELAP	3/18/2004
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chromium	EPA 200.7	Metals	NELAP	3/18/2004
Chromium	EPA 200.8	Metals	NELAP	3/18/2004
Chromium	EPA 6010	Metals	NELAP	4/29/2004
Chromium	EPA 6020	Metals	NELAP	4/29/2004
Chromium VI	EPA 7196	General Chemistry	NELAP	4/29/2004
Chromium VI	SM 3500-Cr D (18th/19th Ed.)/UV-VIS	General Chemistry	NELAP	4/29/2004
Chrysene	EPA 625	Extractable Organics	NELAP	3/18/2004
Chrysene	EPA 8270	Extractable Organics	NELAP	3/18/2004
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	3/18/2004
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Cobalt	EPA 200.7	Metals	NELAP	3/18/2004
Cobalt	EPA 200.8	Metals	NELAP	3/18/2004
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	7/1/2003
Conductivity	EPA 120.1	General Chemistry	NELAP	4/29/2004
Conductivity	EPA 9050	General Chemistry	NELAP	7/1/2003
Conductivity	SM 2510 B	General Chemistry	NELAP	11/13/2007
Copper	EPA 200.7	Metals	NELAP	3/18/2004
Copper	EPA 200.8	Metals	NELAP	3/18/2004
Copper	EPA 6010	Metals	NELAP	7/1/2003
Copper	EPA 6020	Metals	NELAP	4/30/2008
Cyanide	SM 4500-CN E	General Chemistry	NELAP	8/31/2002
Dalapon	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
delta-BHC	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Diallate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diallate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenz(a,h)anthracene	EPA 625	Extractable Organics	NELAP	3/18/2004
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Dibromochloromethane	EPA 624	Volatile Organics	NELAP	3/18/2004
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dicamba	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Dichloroprop (Dichlorprop)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dieldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Diethyl phthalate	EPA 625	Extractable Organics	NELAP	3/18/2004
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Dimethoate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dimethyl phthalate	EPA 625	Extractable Organics	NELAP	3/18/2004
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Di-n-butyl phthalate	EPA 625	Extractable Organics	NELAP	3/18/2004
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Di-n-octyl phthalate	EPA 625	Extractable Organics	NELAP	3/18/2004
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Diphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Disulfoton	EPA 8270	Extractable Organics	NELAP	7/1/2003
Endosulfan I	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endosulfan II	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endosulfan sulfate	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endrin aldehyde	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Ethane	RSK-175	Volatile Organics	NELAP	4/30/2008
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Ethyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Ethylbenzene	EPA 624	Volatile Organics	NELAP	3/18/2004
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Ethylene	RSK-175	Volatile Organics	NELAP	4/30/2008
Famphur	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluoranthene	EPA 625	Extractable Organics	NELAP	3/18/2004
Fluoranthene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Fluorene	EPA 625	Extractable Organics	NELAP	3/18/2004
Fluorene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Fluoride	EPA 300.0	General Chemistry	NELAP	10/7/2002
Fluoride	EPA 9056	General Chemistry	NELAP	7/1/2003
Formaldehyde	EPA 8315	Extractable Organics	NELAP	10/20/2008
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Hardness	EPA 130.2	General Chemistry	NELAP	4/29/2004
Hardness	SM 2340 B	General Chemistry	NELAP	11/13/2007
Hardness	SM 2340 C	General Chemistry	NELAP	11/13/2007
Heptachlor	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Heptachlor epoxide	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Hexachlorobenzene	EPA 625	Extractable Organics	NELAP	3/18/2004
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Hexachlorobutadiene	EPA 625	Extractable Organics	NELAP	3/18/2004
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Hexachlorocyclopentadiene	EPA 625	Extractable Organics	NELAP	3/18/2004
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Hexachloroethane	EPA 625	Extractable Organics	NELAP	3/18/2004
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	3/18/2004
Hexachloropropene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Ignitability	EPA 1010	General Chemistry	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 625	Extractable Organics	NELAP	3/18/2004
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	3/18/2004

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Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Iron	EPA 200.7	Metals	NELAP	3/18/2004
Iron	EPA 6010	Metals	NELAP	7/1/2003
Iron	EPA 6020	Metals	NELAP	5/15/2007
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Isodrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Isophorone	EPA 625	Extractable Organics	NELAP	3/18/2004
Isophorone	EPA 8270	Extractable Organics	NELAP	3/18/2004
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Isosafrole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Kepone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Kjeldahl nitrogen - total	EPA 351.3	General Chemistry	NELAP	4/29/2004
Kjeldahl nitrogen - total	SM 4500-NH3 E (18th Ed.)/TITR	General Chemistry	NELAP	4/30/2008
Lead	EPA 200.7	Metals	NELAP	3/18/2004
Lead	EPA 200.8	Metals	NELAP	3/18/2004
Lead	EPA 6010	Metals	NELAP	4/29/2004
Lead	EPA 6020	Metals	NELAP	4/29/2004
Magnesium	EPA 200.7	Metals	NELAP	5/15/2004
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Magnesium	EPA 6020	Metals	NELAP	8/3/2005
Manganese	EPA 200.7	Metals	NELAP	3/18/2004
Manganese	EPA 200.8	Metals	NELAP	3/18/2004
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	7/1/2003
MCPA	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
MCPP	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Mercury	EPA 1631	Metals	NELAP	3/18/2004
Mercury	EPA 245.1	Metals	NELAP	3/18/2004
Mercury	EPA 7470	Metals	NELAP	3/18/2004
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methane	RSK-175	Volatile Organics	NELAP	4/30/2008
Methapyrilene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	4/29/2004
Methyl bromide (Bromomethane)	EPA 624	Volatile Organics	NELAP	3/18/2004
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Methyl chloride (Chloromethane)	EPA 624	Volatile Organics	NELAP	3/18/2004

Laboratory Scope of Accreditation

Attachment to Certificate #: E87225-44, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: **E87225** EPA Lab Code: **OH00048** **(330) 497-9396**

E87225
TestAmerica - North Canton
4101 Shuffel St NW
North Canton, OH 44720-6961

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Methyl mercury	EPA 1630	Metals	NELAP	7/28/2009
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 624	Volatile Organics	NELAP	10/9/2012
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methylene chloride	EPA 624	Volatile Organics	NELAP	3/18/2004
Methylene chloride	EPA 8260	Volatile Organics	NELAP	3/18/2004
Molybdenum	EPA 200.7	Metals	NELAP	3/18/2004
Molybdenum	EPA 200.8	Metals	NELAP	10/7/2002
Molybdenum	EPA 6010	Metals	NELAP	7/1/2003
Molybdenum	EPA 6020	Metals	NELAP	7/1/2003
Naphthalene	EPA 624	Volatile Organics	NELAP	10/9/2012
Naphthalene	EPA 625	Extractable Organics	NELAP	3/18/2004
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8270	Extractable Organics	NELAP	3/18/2004
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Nickel	EPA 200.7	Metals	NELAP	3/18/2004
Nickel	EPA 200.8	Metals	NELAP	3/18/2004
Nickel	EPA 6010	Metals	NELAP	4/29/2004
Nickel	EPA 6020	Metals	NELAP	4/29/2004
Nitrate	EPA 300.0	General Chemistry	NELAP	4/29/2004
Nitrate	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrite	EPA 300.0	General Chemistry	NELAP	4/29/2004
Nitrite	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrobenzene	EPA 625	Extractable Organics	NELAP	3/18/2004
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Nitroquinoline-1-oxide	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodimethylamine	EPA 625	Extractable Organics	NELAP	3/18/2004
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitroso-di-n-butylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodi-n-propylamine	EPA 625	Extractable Organics	NELAP	3/18/2004
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiphenylamine	EPA 625	Extractable Organics	NELAP	3/18/2004
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003

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TestAmerica - North Canton
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Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
n-Nitrosomethylethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosomorpholine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosopiperidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosopyrrolidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
o,o,o-Triethyl phosphorothioate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Oil & Grease	EPA 1664A	General Chemistry	NELAP	9/23/2011
Organic nitrogen	EPA 351.3 - EPA 350.2	General Chemistry	NELAP	10/7/2002
Orthophosphate as P	EPA 300.0	General Chemistry	NELAP	10/7/2002
Orthophosphate as P	EPA 365.1	General Chemistry	NELAP	8/3/2005
Orthophosphate as P	EPA 9056	General Chemistry	NELAP	7/1/2003
Orthophosphate as P	SM 4500-P E	General Chemistry	NELAP	11/13/2007
o-Toluidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pentachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pentachloronitrobenzene (Quintozene)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pentachlorophenol	EPA 625	Extractable Organics	NELAP	3/18/2004
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
pH	EPA 150.1	General Chemistry	NELAP	10/7/2002
pH	EPA 9040	General Chemistry	NELAP	4/29/2004
pH	SM 4500-H+-B	General Chemistry	NELAP	11/13/2007
Phenacetin	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenanthrene	EPA 625	Extractable Organics	NELAP	3/18/2004
Phenanthrene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Phenol	EPA 625	Extractable Organics	NELAP	3/18/2004
Phenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
Phorate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Phosphorus, total	EPA 365.1	General Chemistry	NELAP	8/3/2005
Phosphorus, total	SM 4500-P E	General Chemistry	NELAP	11/13/2007
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Potassium	EPA 200.7	Metals	NELAP	5/15/2004
Potassium	EPA 6010	Metals	NELAP	7/1/2003
Pronamide (Kerb)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pyrene	EPA 625	Extractable Organics	NELAP	3/18/2004
Pyrene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Pyridine	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Residue-filterable (TDS)	EPA 160.1	General Chemistry	NELAP	4/29/2004
Residue-filterable (TDS)	SM 2540 C	General Chemistry	NELAP	11/13/2007
Residue-nonfilterable (TSS)	EPA 160.2	General Chemistry	NELAP	4/29/2004
Residue-nonfilterable (TSS)	SM 2540 D	General Chemistry	NELAP	11/13/2007
Residue-total	EPA 160.3	General Chemistry	NELAP	4/29/2004
Residue-total	SM 2540 B	General Chemistry	NELAP	11/13/2007
Residue-volatile	EPA 160.4	General Chemistry	NELAP	10/7/2002
Safrole	EPA 8270	Extractable Organics	NELAP	7/1/2003
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Selenium	EPA 200.7	Metals	NELAP	3/18/2004
Selenium	EPA 200.8	Metals	NELAP	5/15/2007
Selenium	EPA 6010	Metals	NELAP	4/29/2004
Selenium	EPA 6020	Metals	NELAP	5/15/2007
Silver	EPA 200.7	Metals	NELAP	3/18/2004
Silver	EPA 200.8	Metals	NELAP	3/18/2004
Silver	EPA 6010	Metals	NELAP	4/29/2004
Silver	EPA 6020	Metals	NELAP	4/29/2004
Silvex (2,4,5-TP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Sodium	EPA 200.7	Metals	NELAP	5/15/2004
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Sodium	EPA 6020	Metals	NELAP	8/3/2005
Strontium	EPA 6020	Metals	NELAP	8/3/2005
Styrene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Sulfate	EPA 300.0	General Chemistry	NELAP	10/7/2002
Sulfate	EPA 375.4	General Chemistry	NELAP	4/29/2004
Sulfate	EPA 9056	General Chemistry	NELAP	7/1/2003
Sulfide	EPA 376.1	General Chemistry	NELAP	4/29/2004
Sulfide	EPA 9030/9034	General Chemistry	NELAP	4/29/2004
Sulfide	SM 4500-S E (18th Ed.)/TITR	General Chemistry	NELAP	1/9/2008
Sulfotepp	EPA 8270	Extractable Organics	NELAP	7/1/2003
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Tetrachloroethylene (Perchloroethylene)	EPA 624	Volatile Organics	NELAP	3/18/2004
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Thallium	EPA 200.7	Metals	NELAP	3/18/2004
Thallium	EPA 200.8	Metals	NELAP	3/18/2004
Thallium	EPA 6010	Metals	NELAP	7/1/2003

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TestAmerica - North Canton
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Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Thallium	EPA 6020	Metals	NELAP	7/1/2003
Thionazin (Zinophos)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Tin	EPA 200.7	Metals	NELAP	3/18/2004
Tin	EPA 200.8	Metals	NELAP	10/7/2002
Tin	EPA 6010	Metals	NELAP	7/1/2003
Tin	EPA 6020	Metals	NELAP	8/3/2005
Titanium	EPA 200.7	Metals	NELAP	5/15/2004
Titanium	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 6020	Metals	NELAP	8/3/2005
Toluene	EPA 624	Volatile Organics	NELAP	3/18/2004
Toluene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Total cyanide	EPA 335.4	General Chemistry	NELAP	10/7/2002
Total cyanide	EPA 9012	General Chemistry	NELAP	4/29/2004
Total organic carbon	EPA 415.1	General Chemistry	NELAP	10/7/2002
Total organic carbon	EPA 9060	General Chemistry	NELAP	7/1/2003
Total organic carbon	SM 5310 C	General Chemistry	NELAP	4/30/2008
Total Petroleum Hydrocarbons (TPH)	EPA 1664A	General Chemistry	NELAP	4/29/2004
Total phenolics	EPA 420.1	General Chemistry	NELAP	4/29/2004
Total phenolics	EPA 9065	General Chemistry	NELAP	7/1/2003
Toxaphene (Chlorinated camphene)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
trans-1,2-Dichloroethylene	EPA 624	Volatile Organics	NELAP	10/7/2002
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	3/18/2004
trans-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	3/18/2004
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichloroethene (Trichloroethylene)	EPA 624	Volatile Organics	NELAP	3/18/2004
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Trichlorofluoromethane	EPA 624	Volatile Organics	NELAP	3/18/2004
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Turbidity	EPA 180.1	General Chemistry	NELAP	10/7/2002
Vanadium	EPA 200.7	Metals	NELAP	3/18/2004
Vanadium	EPA 200.8	Metals	NELAP	5/15/2007
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vanadium	EPA 6020	Metals	NELAP	5/15/2007
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/1/2003

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TestAmerica - North Canton
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North Canton, OH 44720-6961

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Vinyl chloride	EPA 624	Volatile Organics	NELAP	3/18/2004
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	6/16/2004
Xylene (total)	EPA 624	Volatile Organics	NELAP	9/1/2004
Xylene (total)	EPA 8260	Volatile Organics	NELAP	9/1/2004
Zinc	EPA 200.7	Metals	NELAP	3/18/2004
Zinc	EPA 200.8	Metals	NELAP	5/15/2007
Zinc	EPA 6010	Metals	NELAP	7/1/2003
Zinc	EPA 6020	Metals	NELAP	5/15/2007

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Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,2,4,5-Tetrachlorobenzene	EPA 8270	Extractable Organics	NELAP	10/7/2002
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	3/18/2004
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/7/2002
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,2-Dinitrobenzene	EPA 8270	Extractable Organics	NELAP	10/7/2002
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	10/7/2002
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8270	Extractable Organics	NELAP	4/6/2009
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/7/2002
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,3-Dinitrobenzene (1,3-DNB)	EPA 8270	Extractable Organics	NELAP	4/6/2009
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/7/2002
1,4-Dinitrobenzene	EPA 8270	Extractable Organics	NELAP	10/7/2002
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8260	Volatile Organics	NELAP	10/7/2002
1,4-Naphthoquinone	EPA 8270	Extractable Organics	NELAP	10/7/2002
1,4-Phenylenediamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
1-Naphthylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	10/7/2002
2,3,4,6-Tetrachlorophenol	EPA 8270	Extractable Organics	NELAP	10/7/2002
2,4,5-T	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	3/18/2004

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TestAmerica - North Canton
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Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	10/7/2002
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,4-D	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
2,4-DB	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/7/2002
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	3/18/2004
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	10/7/2002
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Acetylaminofluorene	EPA 8270	Extractable Organics	NELAP	10/7/2002
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	10/7/2002
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	3/18/2004
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/7/2002
2-Hexanone	EPA 8260	Volatile Organics	NELAP	10/7/2002
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	10/7/2002
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	10/7/2002
2-Naphthylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	10/7/2002
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
2-Picoline (2-Methylpyridine)	EPA 8270	Extractable Organics	NELAP	10/7/2002
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	10/7/2002
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	10/7/2002
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	1/10/2011
3-Methylcholanthrene	EPA 8270	Extractable Organics	NELAP	10/7/2002
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	10/7/2002
4,4'-DDD	EPA 8081	Volatile Organics	NELAP	3/18/2004
4,4'-DDE	EPA 8081	Volatile Organics	NELAP	3/18/2004
4,4'-DDT	EPA 8081	Volatile Organics	NELAP	3/18/2004
4,4'-Methylenebis(2-chloroaniline)	EPA 8270	Extractable Organics	NELAP	10/7/2002
4-Aminobiphenyl	EPA 8270	Extractable Organics	NELAP	10/7/2002
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	10/7/2002
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	3/18/2004

Laboratory Scope of Accreditation

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State Laboratory ID: **E87225** EPA Lab Code: **OH00048** **(330) 497-9396**

E87225
TestAmerica - North Canton
4101 Shuffel St NW
North Canton, OH 44720-6961

Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	10/7/2002
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	10/7/2002
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/7/2002
4-Dimethyl aminoazobenzene	EPA 8270	Extractable Organics	NELAP	10/7/2002
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	10/7/2002
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	10/7/2002
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
5-Nitro-o-toluidine	EPA 8270	Extractable Organics	NELAP	10/7/2002
7,12-Dimethylbenz(a) anthracene	EPA 8270	Extractable Organics	NELAP	10/7/2002
a,a-Dimethylphenethylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
Acenaphthene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Acetone	EPA 8260	Volatile Organics	NELAP	10/7/2002
Acetonitrile	EPA 8260	Volatile Organics	NELAP	10/7/2002
Acetophenone	EPA 8270	Extractable Organics	NELAP	10/7/2002
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	3/18/2004
Aldrin	EPA 8081	Volatile Organics	NELAP	3/18/2004
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	10/7/2002
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Volatile Organics	NELAP	3/18/2004
alpha-Chlordane	EPA 8081	Extractable Organics	NELAP	10/7/2002
Aluminum	EPA 6010	Metals	NELAP	10/7/2002
Aluminum	EPA 6020	Metals	NELAP	4/7/2008
Amenable cyanide	EPA 9012	General Chemistry	NELAP	10/7/2002
Aniline	EPA 8270	Extractable Organics	NELAP	10/7/2002
Anthracene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Antimony	EPA 6010	Metals	NELAP	3/18/2004
Antimony	EPA 6020	Metals	NELAP	3/18/2004
Aramite	EPA 8270	Extractable Organics	NELAP	10/7/2002
Aroclor-1016 (PCB-1016)	EPA 8082	Extractable Organics	NELAP	3/18/2004
Aroclor-1221 (PCB-1221)	EPA 8082	Extractable Organics	NELAP	3/18/2004
Aroclor-1232 (PCB-1232)	EPA 8082	Extractable Organics	NELAP	3/18/2004
Aroclor-1242 (PCB-1242)	EPA 8082	Extractable Organics	NELAP	3/18/2004
Aroclor-1248 (PCB-1248)	EPA 8082	Extractable Organics	NELAP	3/18/2004
Aroclor-1254 (PCB-1254)	EPA 8082	Extractable Organics	NELAP	3/18/2004
Aroclor-1260 (PCB-1260)	EPA 8082	Extractable Organics	NELAP	3/18/2004

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E87225
TestAmerica - North Canton
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Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Arsenic	EPA 6010	Metals	NELAP	3/18/2004
Arsenic	EPA 6020	Metals	NELAP	3/18/2004
Barium	EPA 6010	Metals	NELAP	3/18/2004
Barium	EPA 6020	Metals	NELAP	3/18/2004
Benzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Benzidine	EPA 8270	Extractable Organics	NELAP	10/7/2002
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	10/7/2002
Benzoic acid	EPA 8270	Extractable Organics	NELAP	10/7/2002
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	10/7/2002
Beryllium	EPA 6010	Metals	NELAP	10/7/2002
Beryllium	EPA 6020	Metals	NELAP	10/7/2002
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Volatile Organics	NELAP	3/18/2004
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	6/16/2004
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	10/7/2002
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	3/18/2004
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	12/18/2006
Boron	EPA 6010	Metals	NELAP	10/7/2002
Boron	EPA 6020	Metals	NELAP	4/7/2008
Bromide	EPA 9056	General Chemistry	NELAP	10/7/2002
Bromobenzene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	10/7/2002
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Bromoform	EPA 8260	Volatile Organics	NELAP	3/18/2004
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Cadmium	EPA 6010	Metals	NELAP	3/18/2004
Cadmium	EPA 6020	Metals	NELAP	6/10/2004
Calcium	EPA 6010	Metals	NELAP	10/7/2002
Carbazole	EPA 8270	Extractable Organics	NELAP	10/7/2002
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	10/7/2002
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	3/18/2004
Chlordane (tech.)	EPA 8081	Volatile Organics	NELAP	3/18/2004
Chloride	EPA 9056	General Chemistry	NELAP	10/7/2002

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E87225
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Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Chlorobenzilate	EPA 8081	Extractable Organics	NELAP	10/7/2002
Chlorobenzilate	EPA 8270	Extractable Organics	NELAP	10/7/2002
Chloroethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Chloroform	EPA 8260	Volatile Organics	NELAP	3/18/2004
Chloroprene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Chromium	EPA 6010	Metals	NELAP	3/18/2004
Chromium	EPA 6020	Metals	NELAP	3/18/2004
Chromium VI	EPA 7196	General Chemistry	NELAP	4/29/2004
Chrysene	EPA 8270	Extractable Organics	NELAP	3/18/2004
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	10/7/2002
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Cobalt	EPA 6010	Metals	NELAP	10/7/2002
Cobalt	EPA 6020	Metals	NELAP	10/7/2002
Copper	EPA 6010	Metals	NELAP	10/7/2002
Copper	EPA 6020	Metals	NELAP	3/18/2004
Dalapon	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/7/2002
delta-BHC	EPA 8081	Volatile Organics	NELAP	3/18/2004
Diallate	EPA 8081	Extractable Organics	NELAP	10/7/2002
Diallate	EPA 8270	Extractable Organics	NELAP	10/7/2002
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	10/7/2002
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Dibromomethane	EPA 8260	Volatile Organics	NELAP	10/7/2002
Dicamba	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Dichloroprop (Dichlorprop)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/7/2002
Dieldrin	EPA 8081	Volatile Organics	NELAP	3/18/2004
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	1/6/2009
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Dimethoate	EPA 8270	Extractable Organics	NELAP	10/7/2002
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	3/18/2004
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/7/2002
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8270	Extractable Organics	NELAP	4/6/2009

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TestAmerica - North Canton
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Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Diphenylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
Disulfoton	EPA 8270	Extractable Organics	NELAP	4/6/2009
Endosulfan I	EPA 8081	Volatile Organics	NELAP	3/18/2004
Endosulfan II	EPA 8081	Volatile Organics	NELAP	3/18/2004
Endosulfan sulfate	EPA 8081	Volatile Organics	NELAP	3/18/2004
Endrin	EPA 8081	Volatile Organics	NELAP	3/18/2004
Endrin aldehyde	EPA 8081	Volatile Organics	NELAP	3/18/2004
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/7/2002
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	10/7/2002
Ethyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	10/7/2002
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Famphur	EPA 8270	Extractable Organics	NELAP	10/7/2002
Fluoranthene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Fluorene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Fluoride	EPA 9056	General Chemistry	NELAP	4/6/2009
Formaldehyde	EPA 8315	Extractable Organics	NELAP	10/20/2008
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Volatile Organics	NELAP	3/18/2004
gamma-Chlordane	EPA 8081	Extractable Organics	NELAP	10/7/2002
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	1/6/2009
Heptachlor	EPA 8081	Volatile Organics	NELAP	3/18/2004
Heptachlor epoxide	EPA 8081	Volatile Organics	NELAP	3/18/2004
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	3/18/2004
Hexachloropropene	EPA 8270	Extractable Organics	NELAP	10/7/2002
Ignitability	EPA 1010	General Chemistry	NELAP	1/6/2009
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	10/7/2002
Iron	EPA 6010	Metals	NELAP	10/7/2002
Iron	EPA 6020	Metals	NELAP	4/30/2008
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	10/7/2002
Isodrin	EPA 8081	Extractable Organics	NELAP	10/7/2002
Isophorone	EPA 8270	Extractable Organics	NELAP	3/18/2004
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	10/7/2002

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Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Isosafrole	EPA 8270	Extractable Organics	NELAP	10/7/2002
Kepone	EPA 8081	Extractable Organics	NELAP	10/7/2002
Lead	EPA 6010	Metals	NELAP	3/18/2004
Lead	EPA 6020	Metals	NELAP	3/18/2004
Magnesium	EPA 6010	Metals	NELAP	10/7/2002
Magnesium	EPA 6020	Metals	NELAP	4/7/2008
Manganese	EPA 6010	Metals	NELAP	10/7/2002
Manganese	EPA 6020	Metals	NELAP	10/7/2002
MCPA	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/7/2002
MCPP	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/7/2002
Mercury	EPA 7471	Metals	NELAP	4/29/2004
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	10/7/2002
Methapyrilene	EPA 8270	Extractable Organics	NELAP	10/7/2002
Methoxychlor	EPA 8081	Volatile Organics	NELAP	4/29/2004
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Methyl mercury	NC-GC-039 Revision 1/GC-CVAFS	Metals	NELAP	7/28/2009
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	10/7/2002
Methyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	10/7/2002
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	10/7/2002
Methylene chloride	EPA 8260	Volatile Organics	NELAP	3/18/2004
Molybdenum	EPA 6010	Metals	NELAP	10/7/2002
Molybdenum	EPA 6020	Metals	NELAP	10/7/2002
Naphthalene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Naphthalene	EPA 8270	Extractable Organics	NELAP	3/18/2004
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Nickel	EPA 6010	Metals	NELAP	3/18/2004
Nickel	EPA 6020	Metals	NELAP	3/18/2004
Nitrate	EPA 9056	General Chemistry	NELAP	4/6/2009
Nitrite	EPA 9056	General Chemistry	NELAP	10/7/2002
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Nitroquinoline-1-oxide	EPA 8270	Extractable Organics	NELAP	10/7/2002
n-Nitrosodiethylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
n-Nitroso-di-n-butylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002

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Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
n-Nitrosomethylethylamine	EPA 8270	Extractable Organics	NELAP	10/7/2002
n-Nitrosomorpholine	EPA 8270	Extractable Organics	NELAP	10/7/2002
n-Nitrosopiperidine	EPA 8270	Extractable Organics	NELAP	10/7/2002
n-Nitrosopyrrolidine	EPA 8270	Extractable Organics	NELAP	10/7/2002
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	10/7/2002
o,o,o-Triethyl phosphorothioate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	10/7/2002
Orthophosphate as P	EPA 9056	General Chemistry	NELAP	4/6/2009
o-Toluidine	EPA 8270	Extractable Organics	NELAP	10/7/2002
Pentachlorobenzene	EPA 8270	Extractable Organics	NELAP	10/7/2002
Pentachloronitrobenzene (Quintozene)	EPA 8270	Extractable Organics	NELAP	10/7/2002
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
pH	EPA 9040	General Chemistry	NELAP	7/28/2009
pH	EPA 9045	General Chemistry	NELAP	7/28/2009
Phenacetin	EPA 8270	Extractable Organics	NELAP	10/7/2002
Phenanthrene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Phenol	EPA 8270	Extractable Organics	NELAP	3/18/2004
Phorate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	10/7/2002
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Potassium	EPA 6010	Metals	NELAP	10/7/2002
Pronamide (Kerb)	EPA 8270	Extractable Organics	NELAP	10/7/2002
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	10/7/2002
Pyrene	EPA 8270	Extractable Organics	NELAP	3/18/2004
Pyridine	EPA 8270	Extractable Organics	NELAP	10/7/2002
Safrole	EPA 8270	Extractable Organics	NELAP	10/7/2002
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Selenium	EPA 6010	Metals	NELAP	3/18/2004
Selenium	EPA 6020	Metals	NELAP	3/18/2004
Silver	EPA 6010	Metals	NELAP	3/18/2004
Silver	EPA 6020	Metals	NELAP	3/18/2004
Silvex (2,4,5-TP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	3/18/2004
Sodium	EPA 6010	Metals	NELAP	10/7/2002
Sodium	EPA 6020	Metals	NELAP	4/7/2008
Strontium	EPA 6020	Metals	NELAP	8/3/2005
Styrene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Sulfate	EPA 9056	General Chemistry	NELAP	4/6/2009

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E87225
TestAmerica - North Canton
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North Canton, OH 44720-6961

Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Sulfide	EPA 9030/9034	General Chemistry	NELAP	6/16/2004
Sulfotepp	EPA 8270	Extractable Organics	NELAP	10/7/2002
Synthetic Precipitation Leaching Procedure	EPA 1312	General Chemistry	NELAP	8/3/2005
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Thallium	EPA 6010	Metals	NELAP	10/7/2002
Thallium	EPA 6020	Metals	NELAP	10/7/2002
Thionazin (Zinophos)	EPA 8270	Extractable Organics	NELAP	10/7/2002
Tin	EPA 6010	Metals	NELAP	10/7/2002
Tin	EPA 6020	Metals	NELAP	4/30/2008
Titanium	EPA 6010	Metals	NELAP	10/7/2002
Titanium	EPA 6020	Metals	NELAP	8/3/2005
Toluene	EPA 8260	Volatile Organics	NELAP	3/18/2004
Total cyanide	EPA 9012	General Chemistry	NELAP	4/29/2004
Total organic carbon	WALKLEY-BLACK	General Chemistry	NELAP	1/10/2011
Total phenolics	EPA 9065	General Chemistry	NELAP	10/7/2002
Toxaphene (Chlorinated camphene)	EPA 8081	Volatile Organics	NELAP	3/18/2004
Toxicity Characteristic Leaching Procedure	EPA 1311	General Chemistry	NELAP	4/29/2004
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	10/7/2002
trans-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	3/18/2004
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	10/7/2002
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	3/18/2004
Vanadium	EPA 6010	Metals	NELAP	10/7/2002
Vanadium	EPA 6020	Metals	NELAP	8/3/2005
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	10/7/2002
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	3/18/2004
Xylene (total)	EPA 8260	Volatile Organics	NELAP	3/18/2004
Zinc	EPA 6010	Metals	NELAP	10/7/2002
Zinc	EPA 6020	Metals	NELAP	10/7/2002

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E87225
TestAmerica - North Canton
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North Canton, OH 44720-6961

Matrix: **Biological Tissue**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methyl mercury	NC-GC-039 Revision 1/GC-CVAFS	Metals	NELAP	7/28/2009

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-23089-1
Client Project/Site: TK Louisville

For:
AMEC Environment & Infrastructure, Inc.
1075 Big Shanty Road, NW
Suite 100
Kennesaw, Georgia 30144

Attn: Ms. Rhonda Quinn

Patrick O'Meara

Authorized for release by:
4/25/2013 4:02:49 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-23089-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.

Project: TK Louisville

Report Number: 240-23089-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 04/12/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.8 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples MANSON BRANCH #2 (240-23089-1), SEEP B (240-23089-2), SEEP G (240-23089-3), SEEP H (240-23089-4), SEEP I (240-23089-5), SEEP L (240-23089-6), SEEP 2 (240-23089-7) and TRIP BLANK (240-23089-8) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/18/2013.

Samples MANSON BRANCH #2 (240-23089-1)[5X], SEEP H (240-23089-4)[2.5X] and SEEP H (240-23089-4)[25X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the VOCs analyses. All quality control parameters were within the acceptance limits.

Method Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-23089-1	MANSON BRANCH #2	Water	04/11/13 12:44	04/12/13 08:00
240-23089-2	SEEP B	Water	04/11/13 13:45	04/12/13 08:00
240-23089-3	SEEP G	Water	04/11/13 13:20	04/12/13 08:00
240-23089-4	SEEP H	Water	04/11/13 13:00	04/12/13 08:00
240-23089-5	SEEP I	Water	04/11/13 13:58	04/12/13 08:00
240-23089-6	SEEP L	Water	04/11/13 14:30	04/12/13 08:00
240-23089-7	SEEP 2	Water	04/11/13 13:33	04/12/13 08:00
240-23089-8	TRIP BLANK	Water	04/11/13 00:00	04/12/13 08:00

Detection Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: MANSON BRANCH #2 — Lab Sample ID: 240-23089-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroethane	3.8		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	130		5.0		ug/L	5		8260B	Total/NA
1,1-Dichloroethane	8.7		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	14		1.0		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	2.3		1.0		ug/L	1		8260B	Total/NA
Vinyl chloride	81		5.0		ug/L	5		8260B	Total/NA

Client Sample ID: SEEP B — Lab Sample ID: 240-23089-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	27		1.0		ug/L	1		8260B	Total/NA
Toluene	12		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	6.3		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP G — Lab Sample ID: 240-23089-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	9.7		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.7		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	7.0		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP H — Lab Sample ID: 240-23089-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	45		2.5		ug/L	2.5		8260B	Total/NA
1,1-Dichloroethene	77		2.5		ug/L	2.5		8260B	Total/NA
1,1,1-Trichloroethane	12		2.5		ug/L	2.5		8260B	Total/NA
Trichloroethene	530		25		ug/L	25		8260B	Total/NA

Client Sample ID: SEEP I — Lab Sample ID: 240-23089-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.2		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP L — Lab Sample ID: 240-23089-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.6		1.0		ug/L	1		8260B	Total/NA
Vinyl chloride	2.1		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP 2 — Lab Sample ID: 240-23089-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	18		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	3.1		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	13		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-23089-8

No Detections.

This Detection Summary does not include radiochemical test results.

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: MANSON BRANCH #2
Date Collected: 04/11/13 12:44
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/18/13 22:54	1
Bromobenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
Bromochloromethane	<1.0		1.0		ug/L			04/18/13 22:54	1
Bromodichloromethane	<1.0		1.0		ug/L			04/18/13 22:54	1
Bromoform	<1.0		1.0		ug/L			04/18/13 22:54	1
Bromomethane	<1.0		1.0		ug/L			04/18/13 22:54	1
Carbon tetrachloride	<1.0		1.0		ug/L			04/18/13 22:54	1
Chlorobenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
Chlorodibromomethane	<1.0		1.0		ug/L			04/18/13 22:54	1
Chloroethane	**3.8**		1.0		ug/L			04/18/13 22:54	1
Chloroform	<1.0		1.0		ug/L			04/18/13 22:54	1
Chloromethane	<1.0		1.0		ug/L			04/18/13 22:54	1
2-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 22:54	1
4-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 22:54	1
cis-1,2-Dichloroethene	**130**		5.0		ug/L			04/18/13 15:50	5
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			04/18/13 22:54	1
1,2-Dibromoethane	<1.0		1.0		ug/L			04/18/13 22:54	1
Dibromomethane	<1.0		1.0		ug/L			04/18/13 22:54	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			04/18/13 22:54	1
1,1-Dichloroethane	**8.7**		1.0		ug/L			04/18/13 22:54	1
1,2-Dichloroethane	<1.0		1.0		ug/L			04/18/13 22:54	1
1,1-Dichloroethene	**14**		1.0		ug/L			04/18/13 22:54	1
1,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 22:54	1
1,3-Dichloropropane	<1.0		1.0		ug/L			04/18/13 22:54	1
2,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 22:54	1
1,1-Dichloropropene	<1.0		1.0		ug/L			04/18/13 22:54	1
1,4-Dioxane	<50		50		ug/L			04/18/13 22:54	1
Ethylbenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
Hexachlorobutadiene	<1.0		1.0		ug/L			04/18/13 22:54	1
Isopropylbenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
Methylene Chloride	<1.0		1.0		ug/L			04/18/13 22:54	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			04/18/13 22:54	1
Naphthalene	<1.0		1.0		ug/L			04/18/13 22:54	1
n-Butylbenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
N-Propylbenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
o-Xylene	<1.0		1.0		ug/L			04/18/13 22:54	1
p-Isopropyltoluene	<1.0		1.0		ug/L			04/18/13 22:54	1
sec-Butylbenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
Styrene	<1.0		1.0		ug/L			04/18/13 22:54	1
tert-Butylbenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 22:54	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 22:54	1
Tetrachloroethene	<1.0		1.0		ug/L			04/18/13 22:54	1
Toluene	<1.0		1.0		ug/L			04/18/13 22:54	1
trans-1,2-Dichloroethene	**2.3**		1.0		ug/L			04/18/13 22:54	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 22:54	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: MANSON BRANCH #2
Date Collected: 04/11/13 12:44
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			04/18/13 22:54	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			04/18/13 22:54	1
Trichloroethene	<1.0		1.0		ug/L			04/18/13 22:54	1
Trichlorofluoromethane	<1.0		1.0		ug/L			04/18/13 22:54	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			04/18/13 22:54	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 22:54	1
Vinyl chloride	**81**		5.0		ug/L			04/18/13 15:50	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*04/18/13 15:50*	*5*
4-Bromofluorobenzene (Surr)	*84*		*66 - 117*		*04/18/13 22:54*	*1*
Dibromofluoromethane (Surr)	*90*		*75 - 121*		*04/18/13 15:50*	*5*
Dibromofluoromethane (Surr)	*98*		*75 - 121*		*04/18/13 22:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*63 - 129*		*04/18/13 15:50*	*5*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*		*04/18/13 22:54*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*04/18/13 15:50*	*5*
Toluene-d8 (Surr)	*91*		*74 - 115*		*04/18/13 22:54*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP B
Date Collected: 04/11/13 13:45
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/18/13 16:12	1
Bromobenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
Bromochloromethane	<1.0		1.0		ug/L			04/18/13 16:12	1
Bromodichloromethane	<1.0		1.0		ug/L			04/18/13 16:12	1
Bromoform	<1.0		1.0		ug/L			04/18/13 16:12	1
Bromomethane	<1.0		1.0		ug/L			04/18/13 16:12	1
Carbon tetrachloride	<1.0		1.0		ug/L			04/18/13 16:12	1
Chlorobenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
Chlorodibromomethane	<1.0		1.0		ug/L			04/18/13 16:12	1
Chloroethane	<1.0		1.0		ug/L			04/18/13 16:12	1
Chloroform	<1.0		1.0		ug/L			04/18/13 16:12	1
Chloromethane	<1.0		1.0		ug/L			04/18/13 16:12	1
2-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 16:12	1
4-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 16:12	1
cis-1,2-Dichloroethene	**27**		1.0		ug/L			04/18/13 16:12	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			04/18/13 16:12	1
1,2-Dibromoethane	<1.0		1.0		ug/L			04/18/13 16:12	1
Dibromomethane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,1-Dichloroethane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,2-Dichloroethane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,1-Dichloroethene	<1.0		1.0		ug/L			04/18/13 16:12	1
1,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,3-Dichloropropane	<1.0		1.0		ug/L			04/18/13 16:12	1
2,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,1-Dichloropropene	<1.0		1.0		ug/L			04/18/13 16:12	1
1,4-Dioxane	<50		50		ug/L			04/18/13 16:12	1
Ethylbenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
Hexachlorobutadiene	<1.0		1.0		ug/L			04/18/13 16:12	1
Isopropylbenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
Methylene Chloride	<1.0		1.0		ug/L			04/18/13 16:12	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			04/18/13 16:12	1
Naphthalene	<1.0		1.0		ug/L			04/18/13 16:12	1
n-Butylbenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
N-Propylbenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
o-Xylene	<1.0		1.0		ug/L			04/18/13 16:12	1
p-Isopropyltoluene	<1.0		1.0		ug/L			04/18/13 16:12	1
sec-Butylbenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
Styrene	<1.0		1.0		ug/L			04/18/13 16:12	1
tert-Butylbenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 16:12	1
Tetrachloroethene	<1.0		1.0		ug/L			04/18/13 16:12	1
Toluene	**12**		1.0		ug/L			04/18/13 16:12	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 16:12	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:12	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP B
Date Collected: 04/11/13 13:45
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			04/18/13 16:12	1
Trichloroethene	**6.3**		1.0		ug/L			04/18/13 16:12	1
Trichlorofluoromethane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			04/18/13 16:12	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 16:12	1
Vinyl chloride	<1.0		1.0		ug/L			04/18/13 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*04/18/13 16:12*	*1*
Dibromofluoromethane (Surr)	*84*		*75 - 121*		*04/18/13 16:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*63 - 129*		*04/18/13 16:12*	*1*
Toluene-d8 (Surr)	*92*		*74 - 115*		*04/18/13 16:12*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP G
Date Collected: 04/11/13 13:20
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/18/13 16:34	1
Bromobenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
Bromochloromethane	<1.0		1.0		ug/L			04/18/13 16:34	1
Bromodichloromethane	<1.0		1.0		ug/L			04/18/13 16:34	1
Bromoform	<1.0		1.0		ug/L			04/18/13 16:34	1
Bromomethane	<1.0		1.0		ug/L			04/18/13 16:34	1
Carbon tetrachloride	<1.0		1.0		ug/L			04/18/13 16:34	1
Chlorobenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
Chlorodibromomethane	<1.0		1.0		ug/L			04/18/13 16:34	1
Chloroethane	<1.0		1.0		ug/L			04/18/13 16:34	1
Chloroform	<1.0		1.0		ug/L			04/18/13 16:34	1
Chloromethane	<1.0		1.0		ug/L			04/18/13 16:34	1
2-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 16:34	1
4-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 16:34	1
cis-1,2-Dichloroethene	**9.7**		1.0		ug/L			04/18/13 16:34	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			04/18/13 16:34	1
1,2-Dibromoethane	<1.0		1.0		ug/L			04/18/13 16:34	1
Dibromomethane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,1-Dichloroethane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,2-Dichloroethane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,1-Dichloroethene	**1.7**		1.0		ug/L			04/18/13 16:34	1
1,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,3-Dichloropropane	<1.0		1.0		ug/L			04/18/13 16:34	1
2,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,1-Dichloropropene	<1.0		1.0		ug/L			04/18/13 16:34	1
1,4-Dioxane	<50		50		ug/L			04/18/13 16:34	1
Ethylbenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
Hexachlorobutadiene	<1.0		1.0		ug/L			04/18/13 16:34	1
Isopropylbenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
Methylene Chloride	<1.0		1.0		ug/L			04/18/13 16:34	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			04/18/13 16:34	1
Naphthalene	<1.0		1.0		ug/L			04/18/13 16:34	1
n-Butylbenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
N-Propylbenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
o-Xylene	<1.0		1.0		ug/L			04/18/13 16:34	1
p-Isopropyltoluene	<1.0		1.0		ug/L			04/18/13 16:34	1
sec-Butylbenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
Styrene	<1.0		1.0		ug/L			04/18/13 16:34	1
tert-Butylbenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 16:34	1
Tetrachloroethene	<1.0		1.0		ug/L			04/18/13 16:34	1
Toluene	<1.0		1.0		ug/L			04/18/13 16:34	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 16:34	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:34	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP G
Date Collected: 04/11/13 13:20
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			04/18/13 16:34	1
Trichloroethene	**7.0**		1.0		ug/L			04/18/13 16:34	1
Trichlorofluoromethane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			04/18/13 16:34	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 16:34	1
Vinyl chloride	<1.0		1.0		ug/L			04/18/13 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*66 - 117*		*04/18/13 16:34*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 121*		*04/18/13 16:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*63 - 129*		*04/18/13 16:34*	*1*
Toluene-d8 (Surr)	*93*		*74 - 115*		*04/18/13 16:34*	*1*

Client Sample ID: SEEP H
Date Collected: 04/11/13 13:00
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Bromobenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Bromochloromethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Bromodichloromethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Bromoform	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Bromomethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Carbon tetrachloride	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Chlorobenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Chlorodibromomethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Chloroethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Chloroform	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Chloromethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
2-Chlorotoluene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
4-Chlorotoluene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
cis-1,2-Dichloroethene	**45**		2.5		ug/L			04/18/13 23:16	2.5
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			04/18/13 23:16	2.5
1,2-Dibromoethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Dibromomethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,2-Dichlorobenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,3-Dichlorobenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,4-Dichlorobenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Dichlorodifluoromethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,1-Dichloroethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,2-Dichloroethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,1-Dichloroethene	**77**		2.5		ug/L			04/18/13 23:16	2.5
1,2-Dichloropropane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,3-Dichloropropane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
2,2-Dichloropropane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,1-Dichloropropene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,4-Dioxane	<130		130		ug/L			04/18/13 23:16	2.5
Ethylbenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Hexachlorobutadiene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Isopropylbenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Methylene Chloride	<2.5		2.5		ug/L			04/18/13 23:16	2.5
m-Xylene & p-Xylene	<5.0		5.0		ug/L			04/18/13 23:16	2.5
Naphthalene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
n-Butylbenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
N-Propylbenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
o-Xylene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
p-Isopropyltoluene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
sec-Butylbenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Styrene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
tert-Butylbenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,1,1,2-Tetrachloroethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,1,2,2-Tetrachloroethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Tetrachloroethene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Toluene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
trans-1,2-Dichloroethene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,2,3-Trichlorobenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP H
Date Collected: 04/11/13 13:00
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,1,1-Trichloroethane	**12**		2.5		ug/L			04/18/13 23:16	2.5
1,1,2-Trichloroethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Trichloroethene	**530**		25		ug/L			04/18/13 16:57	25
Trichlorofluoromethane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,2,3-Trichloropropane	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,2,4-Trimethylbenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
1,3,5-Trimethylbenzene	<2.5		2.5		ug/L			04/18/13 23:16	2.5
Vinyl chloride	<2.5		2.5		ug/L			04/18/13 23:16	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*66 - 117*		*04/18/13 16:57*	*25*
4-Bromofluorobenzene (Surr)	*84*		*66 - 117*		*04/18/13 23:16*	*2.5*
Dibromofluoromethane (Surr)	*95*		*75 - 121*		*04/18/13 16:57*	*25*
Dibromofluoromethane (Surr)	*100*		*75 - 121*		*04/18/13 23:16*	*2.5*
1,2-Dichloroethane-d4 (Surr)	*108*		*63 - 129*		*04/18/13 16:57*	*25*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*		*04/18/13 23:16*	*2.5*
Toluene-d8 (Surr)	*93*		*74 - 115*		*04/18/13 16:57*	*25*
Toluene-d8 (Surr)	*96*		*74 - 115*		*04/18/13 23:16*	*2.5*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP I
Date Collected: 04/11/13 13:58
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/18/13 17:19	1
Bromobenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
Bromochloromethane	<1.0		1.0		ug/L			04/18/13 17:19	1
Bromodichloromethane	<1.0		1.0		ug/L			04/18/13 17:19	1
Bromoform	<1.0		1.0		ug/L			04/18/13 17:19	1
Bromomethane	<1.0		1.0		ug/L			04/18/13 17:19	1
Carbon tetrachloride	<1.0		1.0		ug/L			04/18/13 17:19	1
Chlorobenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
Chlorodibromomethane	<1.0		1.0		ug/L			04/18/13 17:19	1
Chloroethane	<1.0		1.0		ug/L			04/18/13 17:19	1
Chloroform	<1.0		1.0		ug/L			04/18/13 17:19	1
Chloromethane	<1.0		1.0		ug/L			04/18/13 17:19	1
2-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 17:19	1
4-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 17:19	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 17:19	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			04/18/13 17:19	1
1,2-Dibromoethane	<1.0		1.0		ug/L			04/18/13 17:19	1
Dibromomethane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,1-Dichloroethane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,2-Dichloroethane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,1-Dichloroethene	<1.0		1.0		ug/L			04/18/13 17:19	1
1,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,3-Dichloropropane	<1.0		1.0		ug/L			04/18/13 17:19	1
2,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,1-Dichloropropene	<1.0		1.0		ug/L			04/18/13 17:19	1
1,4-Dioxane	<50		50		ug/L			04/18/13 17:19	1
Ethylbenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
Hexachlorobutadiene	<1.0		1.0		ug/L			04/18/13 17:19	1
Isopropylbenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
Methylene Chloride	<1.0		1.0		ug/L			04/18/13 17:19	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			04/18/13 17:19	1
Naphthalene	<1.0		1.0		ug/L			04/18/13 17:19	1
n-Butylbenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
N-Propylbenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
o-Xylene	<1.0		1.0		ug/L			04/18/13 17:19	1
p-Isopropyltoluene	<1.0		1.0		ug/L			04/18/13 17:19	1
sec-Butylbenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
Styrene	<1.0		1.0		ug/L			04/18/13 17:19	1
tert-Butylbenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 17:19	1
Tetrachloroethene	<1.0		1.0		ug/L			04/18/13 17:19	1
Toluene	<1.0		1.0		ug/L			04/18/13 17:19	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 17:19	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:19	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP I
Date Collected: 04/11/13 13:58
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			04/18/13 17:19	1
Trichloroethene	**4.2**		1.0		ug/L			04/18/13 17:19	1
Trichlorofluoromethane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			04/18/13 17:19	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 17:19	1
Vinyl chloride	<1.0		1.0		ug/L			04/18/13 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*66 - 117*		*04/18/13 17:19*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 121*		*04/18/13 17:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*63 - 129*		*04/18/13 17:19*	*1*
Toluene-d8 (Surr)	*95*		*74 - 115*		*04/18/13 17:19*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP L
Date Collected: 04/11/13 14:30
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/18/13 17:41	1
Bromobenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
Bromochloromethane	<1.0		1.0		ug/L			04/18/13 17:41	1
Bromodichloromethane	<1.0		1.0		ug/L			04/18/13 17:41	1
Bromoform	<1.0		1.0		ug/L			04/18/13 17:41	1
Bromomethane	<1.0		1.0		ug/L			04/18/13 17:41	1
Carbon tetrachloride	<1.0		1.0		ug/L			04/18/13 17:41	1
Chlorobenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
Chlorodibromomethane	<1.0		1.0		ug/L			04/18/13 17:41	1
Chloroethane	<1.0		1.0		ug/L			04/18/13 17:41	1
Chloroform	<1.0		1.0		ug/L			04/18/13 17:41	1
Chloromethane	<1.0		1.0		ug/L			04/18/13 17:41	1
2-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 17:41	1
4-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 17:41	1
cis-1,2-Dichloroethene	**4.6**		1.0		ug/L			04/18/13 17:41	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			04/18/13 17:41	1
1,2-Dibromoethane	<1.0		1.0		ug/L			04/18/13 17:41	1
Dibromomethane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,1-Dichloroethane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,2-Dichloroethane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,1-Dichloroethene	<1.0		1.0		ug/L			04/18/13 17:41	1
1,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,3-Dichloropropane	<1.0		1.0		ug/L			04/18/13 17:41	1
2,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,1-Dichloropropene	<1.0		1.0		ug/L			04/18/13 17:41	1
1,4-Dioxane	<50		50		ug/L			04/18/13 17:41	1
Ethylbenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
Hexachlorobutadiene	<1.0		1.0		ug/L			04/18/13 17:41	1
Isopropylbenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
Methylene Chloride	<1.0		1.0		ug/L			04/18/13 17:41	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			04/18/13 17:41	1
Naphthalene	<1.0		1.0		ug/L			04/18/13 17:41	1
n-Butylbenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
N-Propylbenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
o-Xylene	<1.0		1.0		ug/L			04/18/13 17:41	1
p-Isopropyltoluene	<1.0		1.0		ug/L			04/18/13 17:41	1
sec-Butylbenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
Styrene	<1.0		1.0		ug/L			04/18/13 17:41	1
tert-Butylbenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 17:41	1
Tetrachloroethene	<1.0		1.0		ug/L			04/18/13 17:41	1
Toluene	<1.0		1.0		ug/L			04/18/13 17:41	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 17:41	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:41	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP L
Date Collected: 04/11/13 14:30
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			04/18/13 17:41	1
Trichloroethene	<1.0		1.0		ug/L			04/18/13 17:41	1
Trichlorofluoromethane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			04/18/13 17:41	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 17:41	1
Vinyl chloride	**2.1**		1.0		ug/L			04/18/13 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*66 - 117*		*04/18/13 17:41*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 121*		*04/18/13 17:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*63 - 129*		*04/18/13 17:41*	*1*
Toluene-d8 (Surr)	*93*		*74 - 115*		*04/18/13 17:41*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP 2
Date Collected: 04/11/13 13:33
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/18/13 18:04	1
Bromobenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
Bromochloromethane	<1.0		1.0		ug/L			04/18/13 18:04	1
Bromodichloromethane	<1.0		1.0		ug/L			04/18/13 18:04	1
Bromoform	<1.0		1.0		ug/L			04/18/13 18:04	1
Bromomethane	<1.0		1.0		ug/L			04/18/13 18:04	1
Carbon tetrachloride	<1.0		1.0		ug/L			04/18/13 18:04	1
Chlorobenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
Chlorodibromomethane	<1.0		1.0		ug/L			04/18/13 18:04	1
Chloroethane	<1.0		1.0		ug/L			04/18/13 18:04	1
Chloroform	<1.0		1.0		ug/L			04/18/13 18:04	1
Chloromethane	<1.0		1.0		ug/L			04/18/13 18:04	1
2-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 18:04	1
4-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 18:04	1
cis-1,2-Dichloroethene	**18**		1.0		ug/L			04/18/13 18:04	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			04/18/13 18:04	1
1,2-Dibromoethane	<1.0		1.0		ug/L			04/18/13 18:04	1
Dibromomethane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,1-Dichloroethane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,2-Dichloroethane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,1-Dichloroethene	**3.1**		1.0		ug/L			04/18/13 18:04	1
1,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,3-Dichloropropane	<1.0		1.0		ug/L			04/18/13 18:04	1
2,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,1-Dichloropropene	<1.0		1.0		ug/L			04/18/13 18:04	1
1,4-Dioxane	<50		50		ug/L			04/18/13 18:04	1
Ethylbenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
Hexachlorobutadiene	<1.0		1.0		ug/L			04/18/13 18:04	1
Isopropylbenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
Methylene Chloride	<1.0		1.0		ug/L			04/18/13 18:04	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			04/18/13 18:04	1
Naphthalene	<1.0		1.0		ug/L			04/18/13 18:04	1
n-Butylbenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
N-Propylbenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
o-Xylene	<1.0		1.0		ug/L			04/18/13 18:04	1
p-Isopropyltoluene	<1.0		1.0		ug/L			04/18/13 18:04	1
sec-Butylbenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
Styrene	<1.0		1.0		ug/L			04/18/13 18:04	1
tert-Butylbenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 18:04	1
Tetrachloroethene	<1.0		1.0		ug/L			04/18/13 18:04	1
Toluene	<1.0		1.0		ug/L			04/18/13 18:04	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 18:04	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:04	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP 2
Date Collected: 04/11/13 13:33
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			04/18/13 18:04	1
Trichloroethene	**13**		1.0		ug/L			04/18/13 18:04	1
Trichlorofluoromethane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			04/18/13 18:04	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 18:04	1
Vinyl chloride	<1.0		1.0		ug/L			04/18/13 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*04/18/13 18:04*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 121*		*04/18/13 18:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*63 - 129*		*04/18/13 18:04*	*1*
Toluene-d8 (Surr)	*90*		*74 - 115*		*04/18/13 18:04*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: TRIP BLANK
Date Collected: 04/11/13 00:00
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/18/13 18:26	1
Bromobenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
Bromochloromethane	<1.0		1.0		ug/L			04/18/13 18:26	1
Bromodichloromethane	<1.0		1.0		ug/L			04/18/13 18:26	1
Bromoform	<1.0		1.0		ug/L			04/18/13 18:26	1
Bromomethane	<1.0		1.0		ug/L			04/18/13 18:26	1
Carbon tetrachloride	<1.0		1.0		ug/L			04/18/13 18:26	1
Chlorobenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
Chlorodibromomethane	<1.0		1.0		ug/L			04/18/13 18:26	1
Chloroethane	<1.0		1.0		ug/L			04/18/13 18:26	1
Chloroform	<1.0		1.0		ug/L			04/18/13 18:26	1
Chloromethane	<1.0		1.0		ug/L			04/18/13 18:26	1
2-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 18:26	1
4-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 18:26	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 18:26	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			04/18/13 18:26	1
1,2-Dibromoethane	<1.0		1.0		ug/L			04/18/13 18:26	1
Dibromomethane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,1-Dichloroethane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,2-Dichloroethane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,1-Dichloroethene	<1.0		1.0		ug/L			04/18/13 18:26	1
1,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,3-Dichloropropane	<1.0		1.0		ug/L			04/18/13 18:26	1
2,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,1-Dichloropropene	<1.0		1.0		ug/L			04/18/13 18:26	1
1,4-Dioxane	<50		50		ug/L			04/18/13 18:26	1
Ethylbenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
Hexachlorobutadiene	<1.0		1.0		ug/L			04/18/13 18:26	1
Isopropylbenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
Methylene Chloride	<1.0		1.0		ug/L			04/18/13 18:26	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			04/18/13 18:26	1
Naphthalene	<1.0		1.0		ug/L			04/18/13 18:26	1
n-Butylbenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
N-Propylbenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
o-Xylene	<1.0		1.0		ug/L			04/18/13 18:26	1
p-Isopropyltoluene	<1.0		1.0		ug/L			04/18/13 18:26	1
sec-Butylbenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
Styrene	<1.0		1.0		ug/L			04/18/13 18:26	1
tert-Butylbenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 18:26	1
Tetrachloroethene	<1.0		1.0		ug/L			04/18/13 18:26	1
Toluene	<1.0		1.0		ug/L			04/18/13 18:26	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 18:26	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:26	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: TRIP BLANK
Date Collected: 04/11/13 00:00
Date Received: 04/12/13 08:00

Lab Sample ID: 240-23089-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			04/18/13 18:26	1
Trichloroethene	<1.0		1.0		ug/L			04/18/13 18:26	1
Trichlorofluoromethane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			04/18/13 18:26	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 18:26	1
Vinyl chloride	<1.0		1.0		ug/L			04/18/13 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*66 - 117*		*04/18/13 18:26*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 121*		*04/18/13 18:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*04/18/13 18:26*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*04/18/13 18:26*	*1*

Surrogate Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	12DCE	TOL
Lab Sample ID	Client Sample ID	(66-117)	(75-121)	(63-129)	(74-115)
240-23089-1	MANSON BRANCH #2	84	98	100	91
240-23089-1	MANSON BRANCH #2	82	90	104	89
240-23089-2	SEEP B	79	84	101	92
240-23089-3	SEEP G	87	88	104	93
240-23089-4	SEEP H	88	95	108	93
240-23089-4	SEEP H	84	100	103	96
240-23089-4 MS	SEEP H	109	98	94	98
240-23089-4 MSD	SEEP H	101	95	90	97
240-23089-5	SEEP I	87	96	108	95
240-23089-6	SEEP L	85	97	114	93
240-23089-7	SEEP 2	82	97	111	90
240-23089-8	TRIP BLANK	83	95	107	89
LCS 240-82515/4	Lab Control Sample	95	92	96	102
MB 240-82515/5	Method Blank	79	85	97	97

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-82515/5
Matrix: Water
Analysis Batch: 82515

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			04/18/13 13:58	1
Bromobenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
Bromochloromethane	<1.0		1.0		ug/L			04/18/13 13:58	1
Bromodichloromethane	<1.0		1.0		ug/L			04/18/13 13:58	1
Bromoform	<1.0		1.0		ug/L			04/18/13 13:58	1
Bromomethane	<1.0		1.0		ug/L			04/18/13 13:58	1
Carbon tetrachloride	<1.0		1.0		ug/L			04/18/13 13:58	1
Chlorobenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
Chlorodibromomethane	<1.0		1.0		ug/L			04/18/13 13:58	1
Chloroethane	<1.0		1.0		ug/L			04/18/13 13:58	1
Chloroform	<1.0		1.0		ug/L			04/18/13 13:58	1
Chloromethane	<1.0		1.0		ug/L			04/18/13 13:58	1
2-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 13:58	1
4-Chlorotoluene	<1.0		1.0		ug/L			04/18/13 13:58	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 13:58	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			04/18/13 13:58	1
1,2-Dibromoethane	<1.0		1.0		ug/L			04/18/13 13:58	1
Dibromomethane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,1-Dichloroethane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,2-Dichloroethane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,1-Dichloroethene	<1.0		1.0		ug/L			04/18/13 13:58	1
1,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,3-Dichloropropane	<1.0		1.0		ug/L			04/18/13 13:58	1
2,2-Dichloropropane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,1-Dichloropropene	<1.0		1.0		ug/L			04/18/13 13:58	1
1,4-Dioxane	<50		50		ug/L			04/18/13 13:58	1
Ethylbenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
Hexachlorobutadiene	<1.0		1.0		ug/L			04/18/13 13:58	1
Isopropylbenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
Methylene Chloride	<1.0		1.0		ug/L			04/18/13 13:58	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			04/18/13 13:58	1
Naphthalene	<1.0		1.0		ug/L			04/18/13 13:58	1
n-Butylbenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
N-Propylbenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
o-Xylene	<1.0		1.0		ug/L			04/18/13 13:58	1
p-Isopropyltoluene	<1.0		1.0		ug/L			04/18/13 13:58	1
sec-Butylbenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
Styrene	<1.0		1.0		ug/L			04/18/13 13:58	1
tert-Butylbenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			04/18/13 13:58	1
Tetrachloroethene	<1.0		1.0		ug/L			04/18/13 13:58	1
Toluene	<1.0		1.0		ug/L			04/18/13 13:58	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			04/18/13 13:58	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-82515/5
Matrix: Water
Analysis Batch: 82515

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			04/18/13 13:58	1
Trichloroethene	<1.0		1.0		ug/L			04/18/13 13:58	1
Trichlorofluoromethane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			04/18/13 13:58	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			04/18/13 13:58	1
Vinyl chloride	<1.0		1.0		ug/L			04/18/13 13:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*04/18/13 13:58*	*1*
Dibromofluoromethane (Surr)	*85*		*75 - 121*		*04/18/13 13:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 129*		*04/18/13 13:58*	*1*
Toluene-d8 (Surr)	*97*		*74 - 115*		*04/18/13 13:58*	*1*

Lab Sample ID: LCS 240-82515/4
Matrix: Water
Analysis Batch: 82515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	9.92		ug/L		99	83 - 112
Bromobenzene	10.0	9.83		ug/L		98	76 - 115
Bromochloromethane	10.0	9.41		ug/L		94	77 - 120
Bromodichloromethane	10.0	10.1		ug/L		101	72 - 121
Bromoform	10.0	8.41		ug/L		84	40 - 131
Bromomethane	10.0	5.44		ug/L		54	11 - 185
Carbon tetrachloride	10.0	9.56		ug/L		96	66 - 128
Chlorobenzene	10.0	9.79		ug/L		98	85 - 110
Chlorodibromomethane	10.0	9.04		ug/L		90	64 - 119
Chloroethane	10.0	6.20		ug/L		62	25 - 153
Chloroform	10.0	9.71		ug/L		97	79 - 117
Chloromethane	10.0	7.70		ug/L		77	44 - 126
2-Chlorotoluene	10.0	10.4		ug/L		104	76 - 116
4-Chlorotoluene	10.0	10.3		ug/L		103	77 - 115
cis-1,2-Dichloroethene	10.0	9.36		ug/L		94	80 - 113
1,2-Dibromo-3-Chloropropane	10.0	9.62		ug/L		96	42 - 136
1,2-Dibromoethane	10.0	10.5		ug/L		105	79 - 113
Dibromomethane	10.0	9.92		ug/L		99	81 - 120
1,2-Dichlorobenzene	10.0	9.28		ug/L		93	81 - 110
1,3-Dichlorobenzene	10.0	9.52		ug/L		95	80 - 110
1,4-Dichlorobenzene	10.0	9.20		ug/L		92	82 - 110
Dichlorodifluoromethane	10.0	7.28		ug/L		73	19 - 129
1,1-Dichloroethane	10.0	10.1		ug/L		101	82 - 115
1,2-Dichloroethane	10.0	10.3		ug/L		103	71 - 127
1,1-Dichloroethene	10.0	11.1		ug/L		111	78 - 131
1,2-Dichloropropane	10.0	10.0		ug/L		100	81 - 115

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-82515/4
Matrix: Water
Analysis Batch: 82515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	10.0	10.8		ug/L		108	79 - 116
2,2-Dichloropropane	10.0	8.53		ug/L		85	50 - 129
1,1-Dichloropropene	10.0	10.3		ug/L		103	83 - 114
Ethylbenzene	10.0	10.0		ug/L		100	83 - 112
Hexachlorobutadiene	10.0	5.88		ug/L		59	36 - 134
Isopropylbenzene	10.0	9.61		ug/L		96	75 - 114
Methylene Chloride	10.0	9.37		ug/L		94	66 - 131
m-Xylene & p-Xylene	20.0	21.0		ug/L		105	83 - 113
Naphthalene	10.0	6.47		ug/L		65	32 - 141
n-Butylbenzene	10.0	9.40		ug/L		94	66 - 125
N-Propylbenzene	10.0	10.6		ug/L		106	74 - 121
o-Xylene	10.0	10.0		ug/L		100	83 - 113
p-Isopropyltoluene	10.0	10.1		ug/L		101	74 - 120
sec-Butylbenzene	10.0	9.92		ug/L		99	70 - 117
Styrene	10.0	9.53		ug/L		95	79 - 114
tert-Butylbenzene	10.0	10.2		ug/L		102	71 - 115
1,1,1,2-Tetrachloroethane	10.0	10.4		ug/L		104	72 - 116
1,1,2,2-Tetrachloroethane	10.0	10.7		ug/L		107	68 - 118
Tetrachloroethene	10.0	10.1		ug/L		101	79 - 114
Toluene	10.0	10.7		ug/L		107	84 - 111
trans-1,2-Dichloroethene	10.0	9.51		ug/L		95	83 - 117
1,2,3-Trichlorobenzene	10.0	6.33		ug/L		63	54 - 126
1,2,4-Trichlorobenzene	10.0	6.49		ug/L		65	48 - 135
1,1,1-Trichloroethane	10.0	9.16		ug/L		92	74 - 118
1,1,2-Trichloroethane	10.0	10.2		ug/L		102	80 - 112
Trichloroethene	10.0	9.42		ug/L		94	76 - 117
Trichlorofluoromethane	10.0	8.84		ug/L		88	49 - 157
1,2,3-Trichloropropane	10.0	10.4		ug/L		104	73 - 129
1,2,4-Trimethylbenzene	10.0	10.4		ug/L		104	76 - 120
1,3,5-Trimethylbenzene	10.0	10.8		ug/L		108	72 - 118
Vinyl chloride	10.0	8.45		ug/L		84	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*66 - 117*
Dibromofluoromethane (Surr)	*92*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 129*
Toluene-d8 (Surr)	*102*		*74 - 115*

Lab Sample ID: 240-23089-4 MS
Matrix: Water
Analysis Batch: 82515

Client Sample ID: SEEP H
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<25		250	256		ug/L		102	72 - 121
Bromobenzene	<25		250	229		ug/L		92	71 - 116
Bromochloromethane	<25		250	244		ug/L		98	73 - 121
Bromodichloromethane	<25		250	283		ug/L		113	67 - 120
Bromoform	<25		250	254		ug/L		102	32 - 128

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-23089-4 MS
Matrix: Water
Analysis Batch: 82515

Client Sample ID: SEEP H
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	<25		250	174		ug/L		70	10 - 186
Carbon tetrachloride	<25		250	246		ug/L		98	59 - 129
Chlorobenzene	<25		250	243		ug/L		97	80 - 110
Chlorodibromomethane	<25		250	237		ug/L		95	56 - 118
Chloroethane	<25		250	254		ug/L		102	21 - 165
Chloroform	<25		250	263		ug/L		105	76 - 118
Chloromethane	<25		250	224		ug/L		89	33 - 132
2-Chlorotoluene	<25		250	231		ug/L		93	69 - 117
4-Chlorotoluene	<25		250	235		ug/L		94	71 - 116
cis-1,2-Dichloroethene	45		250	292		ug/L		99	70 - 120
1,2-Dibromo-3-Chloropropane	<50		250	229		ug/L		91	32 - 139
1,2-Dibromoethane	<25		250	249		ug/L		99	74 - 113
Dibromomethane	<25		250	262		ug/L		105	77 - 121
1,2-Dichlorobenzene	<25		250	237		ug/L		95	75 - 111
1,3-Dichlorobenzene	<25		250	236		ug/L		94	73 - 110
1,4-Dichlorobenzene	<25		250	224		ug/L		89	75 - 110
Dichlorodifluoromethane	<25		250	171		ug/L		68	17 - 128
1,1-Dichloroethane	<25		250	276		ug/L		110	79 - 116
1,2-Dichloroethane	<25		250	246		ug/L		98	68 - 129
1,1-Dichloroethene	110		250	375		ug/L		106	74 - 135
1,2-Dichloropropane	<25		250	260		ug/L		104	78 - 115
1,3-Dichloropropane	<25		250	231		ug/L		92	74 - 118
2,2-Dichloropropane	<25		250	234		ug/L		94	38 - 127
1,1-Dichloropropene	<25		250	251		ug/L		101	80 - 114
Ethylbenzene	<25		250	257		ug/L		103	75 - 116
Hexachlorobutadiene	<25		250	188		ug/L		75	27 - 132
Isopropylbenzene	<25		250	258		ug/L		103	68 - 116
Methylene Chloride	<25		250	272		ug/L		109	63 - 128
m-Xylene & p-Xylene	<50		500	526		ug/L		105	75 - 117
Naphthalene	<25		250	175		ug/L		70	15 - 158
n-Butylbenzene	<25		250	245		ug/L		98	56 - 127
N-Propylbenzene	<25		250	244		ug/L		97	64 - 124
o-Xylene	<25		250	265		ug/L		106	76 - 116
p-Isopropyltoluene	<25		250	256		ug/L		102	64 - 122
sec-Butylbenzene	<25		250	240		ug/L		96	60 - 119
Styrene	<25		250	249		ug/L		99	71 - 117
tert-Butylbenzene	<25		250	242		ug/L		97	61 - 119
1,1,1,2-Tetrachloroethane	<25		250	274		ug/L		110	64 - 118
1,1,2,2-Tetrachloroethane	<25		250	232		ug/L		93	63 - 122
Tetrachloroethene	<25		250	240		ug/L		96	70 - 117
Toluene	<25		250	255		ug/L		102	78 - 114
trans-1,2-Dichloroethene	<25		250	256		ug/L		102	80 - 119
1,2,3-Trichlorobenzene	<25		250	200		ug/L		80	45 - 129
1,2,4-Trichlorobenzene	<25		250	192		ug/L		77	38 - 138
1,1,1-Trichloroethane	<25		250	277		ug/L		106	68 - 121
1,1,2-Trichloroethane	<25		250	259		ug/L		104	75 - 115
Trichloroethene	530		250	707		ug/L		72	66 - 120
Trichlorofluoromethane	<25		250	202		ug/L		81	46 - 157

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-23089-4 MS
Matrix: Water
Analysis Batch: 82515

Client Sample ID: SEEP H
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	<25		250	242		ug/L		97	67 - 132
1,2,4-Trimethylbenzene	<25		250	254		ug/L		102	67 - 124
1,3,5-Trimethylbenzene	<25		250	251		ug/L		100	63 - 121
Vinyl chloride	<25		250	220		ug/L		88	49 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*66 - 117*
Dibromofluoromethane (Surr)	*98*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*94*		*63 - 129*
Toluene-d8 (Surr)	*98*		*74 - 115*

Lab Sample ID: 240-23089-4 MSD
Matrix: Water
Analysis Batch: 82515

Client Sample ID: SEEP H
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<25		250	244		ug/L		97	72 - 121	5	30
Bromobenzene	<25		250	224		ug/L		90	71 - 116	2	30
Bromochloromethane	<25		250	221		ug/L		89	73 - 121	10	30
Bromodichloromethane	<25		250	277		ug/L		111	67 - 120	2	30
Bromoform	<25		250	228		ug/L		91	32 - 128	11	30
Bromomethane	<25		250	163		ug/L		65	10 - 186	6	30
Carbon tetrachloride	<25		250	236		ug/L		94	59 - 129	4	30
Chlorobenzene	<25		250	239		ug/L		95	80 - 110	2	30
Chlorodibromomethane	<25		250	230		ug/L		92	56 - 118	3	30
Chloroethane	<25		250	236		ug/L		94	21 - 165	8	30
Chloroform	<25		250	252		ug/L		101	76 - 118	4	30
Chloromethane	<25		250	205		ug/L		82	33 - 132	9	30
2-Chlorotoluene	<25		250	232		ug/L		93	69 - 117	0	30
4-Chlorotoluene	<25		250	235		ug/L		94	71 - 116	0	30
cis-1,2-Dichloroethene	45		250	277		ug/L		93	70 - 120	5	30
1,2-Dibromo-3-Chloropropane	<50		250	235		ug/L		94	32 - 139	3	30
1,2-Dibromoethane	<25		250	249		ug/L		100	74 - 113	0	30
Dibromomethane	<25		250	250		ug/L		100	77 - 121	5	30
1,2-Dichlorobenzene	<25		250	233		ug/L		93	75 - 111	2	30
1,3-Dichlorobenzene	<25		250	234		ug/L		93	73 - 110	1	30
1,4-Dichlorobenzene	<25		250	226		ug/L		90	75 - 110	1	30
Dichlorodifluoromethane	<25		250	159		ug/L		63	17 - 128	8	30
1,1-Dichloroethane	<25		250	264		ug/L		106	79 - 116	4	30
1,2-Dichloroethane	<25		250	237		ug/L		95	68 - 129	3	30
1,1-Dichloroethene	110		250	403		ug/L		117	74 - 135	7	30
1,2-Dichloropropane	<25		250	250		ug/L		100	78 - 115	4	30
1,3-Dichloropropane	<25		250	249		ug/L		99	74 - 118	7	30
2,2-Dichloropropane	<25		250	224		ug/L		90	38 - 127	4	30
1,1-Dichloropropene	<25		250	240		ug/L		96	80 - 114	4	30
Ethylbenzene	<25		250	248		ug/L		99	75 - 116	4	30
Hexachlorobutadiene	<25		250	196		ug/L		79	27 - 132	4	30
Isopropylbenzene	<25		250	249		ug/L		100	68 - 116	3	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-23089-4 MSD
Matrix: Water
Analysis Batch: 82515

Client Sample ID: SEEP H
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	<25		250	243		ug/L		97	63 - 128	11	30
m-Xylene & p-Xylene	<50		500	523		ug/L		105	75 - 117	1	30
Naphthalene	<25		250	176		ug/L		70	15 - 158	1	30
n-Butylbenzene	<25		250	244		ug/L		97	56 - 127	1	30
N-Propylbenzene	<25		250	237		ug/L		95	64 - 124	3	30
o-Xylene	<25		250	258		ug/L		103	76 - 116	2	30
p-Isopropyltoluene	<25		250	246		ug/L		99	64 - 122	4	30
sec-Butylbenzene	<25		250	244		ug/L		97	60 - 119	1	30
Styrene	<25		250	241		ug/L		96	71 - 117	3	30
tert-Butylbenzene	<25		250	238		ug/L		95	61 - 119	1	30
1,1,1,2-Tetrachloroethane	<25		250	264		ug/L		106	64 - 118	4	30
1,1,2,2-Tetrachloroethane	<25		250	236		ug/L		95	63 - 122	2	30
Tetrachloroethene	<25		250	234		ug/L		93	70 - 117	3	30
Toluene	<25		250	250		ug/L		100	78 - 114	2	30
trans-1,2-Dichloroethene	<25		250	246		ug/L		99	80 - 119	4	30
1,2,3-Trichlorobenzene	<25		250	202		ug/L		81	45 - 129	1	30
1,2,4-Trichlorobenzene	<25		250	192		ug/L		77	38 - 138	0	30
1,1,1-Trichloroethane	<25		250	257		ug/L		97	68 - 121	8	30
1,1,2-Trichloroethane	<25		250	237		ug/L		95	75 - 115	9	30
Trichloroethene	530		250	710		ug/L		74	66 - 120	0	30
Trichlorofluoromethane	<25		250	192		ug/L		77	46 - 157	5	30
1,2,3-Trichloropropane	<25		250	216		ug/L		87	67 - 132	11	30
1,2,4-Trimethylbenzene	<25		250	247		ug/L		99	67 - 124	3	30
1,3,5-Trimethylbenzene	<25		250	247		ug/L		99	63 - 121	2	30
Vinyl chloride	<25		250	205		ug/L		82	49 - 130	7	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*66 - 117*
Dibromofluoromethane (Surr)	*95*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*90*		*63 - 129*
Toluene-d8 (Surr)	*97*		*74 - 115*

QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

GC/MS VOA

Analysis Batch: 82515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-23089-1	MANSON BRANCH #2	Total/NA	Water	8260B	
240-23089-1	MANSON BRANCH #2	Total/NA	Water	8260B	
240-23089-2	SEEP B	Total/NA	Water	8260B	
240-23089-3	SEEP G	Total/NA	Water	8260B	
240-23089-4	SEEP H	Total/NA	Water	8260B	
240-23089-4	SEEP H	Total/NA	Water	8260B	
240-23089-4 MS	SEEP H	Total/NA	Water	8260B	
240-23089-4 MSD	SEEP H	Total/NA	Water	8260B	
240-23089-5	SEEP I	Total/NA	Water	8260B	
240-23089-6	SEEP L	Total/NA	Water	8260B	
240-23089-7	SEEP 2	Total/NA	Water	8260B	
240-23089-8	TRIP BLANK	Total/NA	Water	8260B	
LCS 240-82515/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-82515/5	Method Blank	Total/NA	Water	8260B	

Client Sample ID: MANSON BRANCH #2 — **Lab Sample ID: 240-23089-1**
Date Collected: 04/11/13 12:44 — **Matrix: Water**
Date Received: 04/12/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	82515	04/18/13 22:54	LE	TAL CAN
Total/NA	Analysis	8260B		5	82515	04/18/13 15:50	LE	TAL CAN

Client Sample ID: SEEP B — **Lab Sample ID: 240-23089-2**
Date Collected: 04/11/13 13:45 — **Matrix: Water**
Date Received: 04/12/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	82515	04/18/13 16:12	LE	TAL CAN

Client Sample ID: SEEP G — **Lab Sample ID: 240-23089-3**
Date Collected: 04/11/13 13:20 — **Matrix: Water**
Date Received: 04/12/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	82515	04/18/13 16:34	LE	TAL CAN

Client Sample ID: SEEP H — **Lab Sample ID: 240-23089-4**
Date Collected: 04/11/13 13:00 — **Matrix: Water**
Date Received: 04/12/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		25	82515	04/18/13 16:57	LE	TAL CAN
Total/NA	Analysis	8260B		2.5	82515	04/18/13 23:16	LE	TAL CAN

Client Sample ID: SEEP I — **Lab Sample ID: 240-23089-5**
Date Collected: 04/11/13 13:58 — **Matrix: Water**
Date Received: 04/12/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	82515	04/18/13 17:19	LE	TAL CAN

Client Sample ID: SEEP L — **Lab Sample ID: 240-23089-6**
Date Collected: 04/11/13 14:30 — **Matrix: Water**
Date Received: 04/12/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	82515	04/18/13 17:41	LE	TAL CAN

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Client Sample ID: SEEP 2

Lab Sample ID: 240-23089-7

Date Collected: 04/11/13 13:33

Matrix: Water

Date Received: 04/12/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	82515	04/18/13 18:04	LE	TAL CAN

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-23089-8

Date Collected: 04/11/13 00:00

Matrix: Water

Date Received: 04/12/13 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	82515	04/18/13 18:26	LE	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK Louisville

TestAmerica Job ID: 240-23089-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	07-28-13
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAP	2	OH001	06-30-13
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-14
West Virginia DEP	State Program	3	210	12-31-13
Wisconsin	State Program	5	999518190	08-31-13

TestAmerica Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Rhonda Quinn	Site Contact:	Date:4/11/13	COC No:
Amec E&I	Tel/Fax: 770-421-3400	Lab Contact:	Carrier:Fed Ex	1 of 1 COCs
1075 Big Shanty Road, #100	Analysis Turnaround Time			For Lab Use Only:
Kennesaw, Ga, 30144	Calendar (C) or Work Days (W) _____			Walk-in Client:
770-421-3400	TAT if different from Below _____			Lab Sampling:
(xxx) xxx-xxxx FAX	☑ 2 weeks			
Project Name:TK Louisville	☐ 1 week			Job / SDG No.:
Site: TK Louisville	☐ 2 days			
P O #	☐ 1 day			Sampler:Ever Guillen

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y / N)	Composite = C / Grab = G	site specific VOCs including 1,4-d	Sample Specific Notes:
Manson Branch # 2	4/11/2013	12:44		GW		N	G	X	
Seep B	4/11/2013	13:45		GW		N	G	X	
Seep G	4/11/2013	13:20		GW		N	G	X	
Seep H	4/11/2013	13:00		GW		N	G	X	
Seep I	4/11/2013	13:58		GW		N	G	X	
Seep L	4/11/2013	14:30		GW		N	G	X	
Seep 2	4/11/2013	13:33		GW		N	G	X	
Trip				W		N	G	X	

240-23089 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company: AMEC	Date/Time: 4/11/13 2020	Received by:	Company: TA	Date/Time: 4/12/13 800
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

4/25/2013

TestAmerica Canton Sample Receipt Form/Narrative Login # : 23089

Client Amec E&I Site Name _____ By: Derek D. Green (Signature)

Cooler Received on 4-12-13 Opened on 4-12-13

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1 (CF 0°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	☐ Multiple on Back
IR GUN# 4G (CF +1°C)	Observed Sample Temp. 0.8 °C	Corrected Sample Temp. 1.8 °C	
IR GUN# 5G (CF +1 °C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	
IR GUN# 8 (CF +1°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 0 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ______________________________ were further preserved in Sample Receiving to meet recommended pH level(s).

Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 051012-H2SO4; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH.

What time was preservative added to sample(s)? ____________________

Client ID	pH	Date	Initials
	pH Strip Lot# HC256691		

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

SOP: NC-SC-0005, Sample Receiving
C:\Documents and Settings\burnst\Local Settings\Temporary Internet Files\OLK3A\COOLER_TestAmerica_Rev 89_040213 rls.doc

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-26814-1
Client Project/Site: TK LOUISVILLE, LOUISVILLE, GA

For:
AMEC Environment & Infrastructure, Inc.
1075 Big Shanty Road, NW
Suite 100
Kennesaw, Georgia 30144

Attn: Ms. Rhonda Quinn

Patrick O'Meara

Authorized for release by:
7/29/2013 10:20:03 AM

Patrick O'Meara, Project Manager II
patrick.omeara@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
F	MS or MSD exceeds the control limits
E	Result exceeded calibration range.
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-26814-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: AMEC Environment & Infrastructure, Inc.

Project: TK LOUISVILLE, LOUISVILLE, GA

Report Number: 240-26814-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 07/12/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.2 C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-070913 (240-26814-1), MW-5 (240-26814-2), MW-3 (240-26814-3), MW-22 (240-26814-4), MW-20 (240-26814-5), MW-25 (240-26814-6), MW-27 (240-26814-7), MW-28 (240-26814-8), MW-10 (240-26814-9), MW-14 (240-26814-10), DUP-1 (240-26814-11), MW-19 (240-26814-12), SEEP MANSON BRANCH #2 (240-26814-13), SEEP H (240-26814-14), SEEP G (240-26814-15), SEEP #2 (240-26814-16), SEEP B (240-26814-17), SEEP L (240-26814-18), SEEP I (240-26814-19), MB #16 (240-26814-20), MB #15 (240-26814-21), DUP-2 (240-26814-22), MB #3 (240-26814-23) and MB #5 (240-26814-24) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 07/18/2013, 07/19/2013, 07/20/2013 and 07/21/2013.

The laboratory control sample (LCS) for batch 94118 recovered outside control limits for the following analyte(s): 1,2,3-Trichlorobenzene--has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

1,2,3-Trichlorobenzene failed the recovery criteria low for the MS of sample MW-14 (240-26814-10) in batch 240-94286. Naphthalene exceeded the RPD limit for the MSD of sample MW-14 (240-26814-10) in batch 240-94286.

Samples MW-5 (240-26814-2)[10X], MW-20 (240-26814-5)[1.25X], MW-20 (240-26814-5)[12.5X], MW-25 (240-26814-6)[12.5X], MW-25

Job ID: 240-26814-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

(240-26814-6)[125X], MW-14 (240-26814-10)[10X], MW-14 (240-26814-10)[100X], DUP-1 (240-26814-11)[10X], DUP-1 (240-26814-11)[100X], MW-19 (240-26814-12)[14.28X], MW-19 (240-26814-12)[142.86X], SEEP H (240-26814-14)[1.67X], SEEP H (240-26814-14)[16.67X], DUP-2 (240-26814-22)[1.43X] and DUP-2 (240-26814-22)[14.28X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Samples MW-5 (240-26814-2), MW-20 (240-26814-5), MW-25 (240-26814-6), MW-27 (240-26814-7), MW-28 (240-26814-8), MW-14 (240-26814-10), DUP-1 (240-26814-11) and MW-19 (240-26814-12) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 07/20/2013 and 07/21/2013.

No other difficulties were encountered during the VOC SIM analysis. All other quality control parameters were within the acceptance limits.

Method Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-26814-1	TB-070913	WQ	07/09/13 10:00	07/12/13 09:15
240-26814-2	MW-5	Water	07/09/13 15:00	07/12/13 09:15
240-26814-3	MW-3	Water	07/09/13 11:20	07/12/13 09:15
240-26814-4	MW-22	Water	07/09/13 18:35	07/12/13 09:15
240-26814-5	MW-20	Water	07/09/13 12:35	07/12/13 09:15
240-26814-6	MW-25	Water	07/09/13 17:10	07/12/13 09:15
240-26814-7	MW-27	Water	07/10/13 09:55	07/12/13 09:15
240-26814-8	MW-28	Water	07/10/13 10:17	07/12/13 09:15
240-26814-9	MW-10	Water	07/10/13 12:46	07/12/13 09:15
240-26814-10	MW-14	Water	07/10/13 11:35	07/12/13 09:15
240-26814-11	DUP-1	Water	07/10/13 12:00	07/12/13 09:15
240-26814-12	MW-19	Water	07/10/13 13:22	07/12/13 09:15
240-26814-13	SEEP MANSON BRANCH #2	Water	07/10/13 15:02	07/12/13 09:15
240-26814-14	SEEP H	Water	07/10/13 15:12	07/12/13 09:15
240-26814-15	SEEP G	Water	07/10/13 15:35	07/12/13 09:15
240-26814-16	SEEP #2	Water	07/10/13 15:40	07/12/13 09:15
240-26814-17	SEEP B	Water	07/10/13 15:50	07/12/13 09:15
240-26814-18	SEEP L	Water	07/10/13 16:00	07/12/13 09:15
240-26814-19	SEEP I	Water	07/10/13 16:05	07/12/13 09:15
240-26814-20	MB #16	Water	07/10/13 16:15	07/12/13 09:15
240-26814-21	MB #15	Water	07/10/13 16:30	07/12/13 09:15
240-26814-22	DUP-2	Water	07/10/13 12:00	07/12/13 09:15
240-26814-23	MB #3	Water	07/10/13 16:40	07/12/13 09:15
240-26814-24	MB #5	Water	07/10/13 16:55	07/12/13 09:15

Detection Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: TB-070913 — Lab Sample ID: 240-26814-1

No Detections.

Client Sample ID: MW-5 — Lab Sample ID: 240-26814-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	3.0		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	3.7		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	9.8		1.0		ug/L	1		8260B	Total/NA
Hexachlorobutadiene	1.4		1.0		ug/L	1		8260B	Total/NA
Naphthalene	1.1		1.0		ug/L	1		8260B	Total/NA
1,2,3-Trichlorobenzene	1.5		1.0		ug/L	1		8260B	Total/NA
1,2,4-Trichlorobenzene	1.5		1.0		ug/L	1		8260B	Total/NA
1,1,1-Trichloroethane	1.4		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	370		10		ug/L	10		8260B	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 240-26814-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	3.2		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	2.2		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-22 — Lab Sample ID: 240-26814-4

No Detections.

Client Sample ID: MW-20 — Lab Sample ID: 240-26814-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	360		13		ug/L	12.5		8260B	Total/NA
1,1-Dichloroethene	4.8		1.3		ug/L	1.25		8260B	Total/NA
Vinyl chloride	1.6		1.3		ug/L	1.25		8260B	Total/NA

Client Sample ID: MW-25 — Lab Sample ID: 240-26814-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	840		130		ug/L	125		8260B	Total/NA
1,1-Dichloroethene	27		13		ug/L	12.5		8260B	Total/NA
Trichloroethene	4500		130		ug/L	125		8260B	Total/NA
Vinyl chloride	21		13		ug/L	12.5		8260B	Total/NA

Client Sample ID: MW-27 — Lab Sample ID: 240-26814-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	8.8		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.2		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	13		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-28 — Lab Sample ID: 240-26814-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.2		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	1.2		1.0		ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-10 — Lab Sample ID: 240-26814-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.5		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	1.4		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 240-26814-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	350		10		ug/L	10		8260B	Total/NA
1,1-Dichloroethene	57		10		ug/L	10		8260B	Total/NA
Trichloroethene	2900		100		ug/L	100		8260B	Total/NA

Client Sample ID: DUP-1 — Lab Sample ID: 240-26814-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	360		10		ug/L	10		8260B	Total/NA
1,1-Dichloroethene	56		10		ug/L	10		8260B	Total/NA
Trichloroethene	3100		100		ug/L	100		8260B	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 240-26814-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	18		14		ug/L	14.28		8260B	Total/NA
1,1-Dichloroethene	33		14		ug/L	14.28		8260B	Total/NA
Trichloroethene	5000		140		ug/L	142.86		8260B	Total/NA

Client Sample ID: SEEP MANSON BRANCH #2 — Lab Sample ID: 240-26814-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroethane	1.3		1.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	18		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethane	3.1		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.3		1.0		ug/L	1		8260B	Total/NA
Vinyl chloride	21		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP H — Lab Sample ID: 240-26814-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	64		1.7		ug/L	1.67		8260B	Total/NA
1,1-Dichloroethene	58		1.7		ug/L	1.67		8260B	Total/NA
Toluene	1.8		1.7		ug/L	1.67		8260B	Total/NA
1,1,1-Trichloroethane	9.6		1.7		ug/L	1.67		8260B	Total/NA
Trichloroethene	490		17		ug/L	16.67		8260B	Total/NA

Client Sample ID: SEEP G — Lab Sample ID: 240-26814-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	6.4		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP #2 — Lab Sample ID: 240-26814-16

This Detection Summary does not include radiochemical test results.

Client Sample ID: SEEP #2 (Continued) — Lab Sample ID: 240-26814-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11		1.0		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.2		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	4.5		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP B — Lab Sample ID: 240-26814-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5.2		1.0		ug/L	1		8260B	Total/NA
Toluene	1.5		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	1.2		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: SEEP L — Lab Sample ID: 240-26814-18

No Detections.

Client Sample ID: SEEP I — Lab Sample ID: 240-26814-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.3		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	1.9		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: MB #16 — Lab Sample ID: 240-26814-20

No Detections.

Client Sample ID: MB #15 — Lab Sample ID: 240-26814-21

No Detections.

Client Sample ID: DUP-2 — Lab Sample ID: 240-26814-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.9		1.4		ug/L	1.43		8260B	Total/NA
cis-1,2-Dichloroethene	62		14		ug/L	14.28		8260B	Total/NA
1,1-Dichloroethene	62		14		ug/L	14.28		8260B	Total/NA
Toluene	1.4		1.4		ug/L	1.43		8260B	Total/NA
1,1,1-Trichloroethane	13		1.4		ug/L	1.43		8260B	Total/NA
Trichloroethene	520		14		ug/L	14.28		8260B	Total/NA

Client Sample ID: MB #3 — Lab Sample ID: 240-26814-23

No Detections.

Client Sample ID: MB #5 — Lab Sample ID: 240-26814-24

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-070913
Date Collected: 07/09/13 10:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-1
Matrix: WQ

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/18/13 17:11	1
Bromobenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
Bromochloromethane	<1.0		1.0		ug/L			07/18/13 17:11	1
Bromodichloromethane	<1.0		1.0		ug/L			07/18/13 17:11	1
Bromoform	<1.0		1.0		ug/L			07/18/13 17:11	1
Bromomethane	<1.0		1.0		ug/L			07/18/13 17:11	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/18/13 17:11	1
Chlorobenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/18/13 17:11	1
Chloroethane	<1.0		1.0		ug/L			07/18/13 17:11	1
Chloroform	<1.0		1.0		ug/L			07/18/13 17:11	1
Chloromethane	<1.0		1.0		ug/L			07/18/13 17:11	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 17:11	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 17:11	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 17:11	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/18/13 17:11	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/18/13 17:11	1
Dibromomethane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/18/13 17:11	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/18/13 17:11	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/18/13 17:11	1
1,4-Dioxane	<50		50		ug/L			07/18/13 17:11	1
Ethylbenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/18/13 17:11	1
Isopropylbenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
Methylene Chloride	<1.0		1.0		ug/L			07/18/13 17:11	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/18/13 17:11	1
Naphthalene	<1.0		1.0		ug/L			07/18/13 17:11	1
n-Butylbenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
N-Propylbenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
o-Xylene	<1.0		1.0		ug/L			07/18/13 17:11	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/18/13 17:11	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
Styrene	<1.0		1.0		ug/L			07/18/13 17:11	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 17:11	1
Tetrachloroethene	<1.0		1.0		ug/L			07/18/13 17:11	1
Toluene	<1.0		1.0		ug/L			07/18/13 17:11	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 17:11	1
1,2,3-Trichlorobenzene	<1.0	*	1.0		ug/L			07/18/13 17:11	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: TB-070913
Date Collected: 07/09/13 10:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-1
Matrix: WQ

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/18/13 17:11	1
Trichloroethene	<1.0		1.0		ug/L			07/18/13 17:11	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/18/13 17:11	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 17:11	1
Vinyl chloride	<1.0		1.0		ug/L			07/18/13 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*07/18/13 17:11*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 121*		*07/18/13 17:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*07/18/13 17:11*	*1*
Toluene-d8 (Surr)	*82*		*74 - 115*		*07/18/13 17:11*	*1*

Client Sample ID: MW-5
Date Collected: 07/09/13 15:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-2
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			07/20/13 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*74 - 120*		*07/20/13 21:00*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/20/13 22:39	1
Bromobenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
Bromochloromethane	<1.0		1.0		ug/L			07/20/13 22:39	1
Bromodichloromethane	<1.0		1.0		ug/L			07/20/13 22:39	1
Bromoform	<1.0		1.0		ug/L			07/20/13 22:39	1
Bromomethane	<1.0		1.0		ug/L			07/20/13 22:39	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/20/13 22:39	1
Chlorobenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/20/13 22:39	1
Chloroethane	<1.0		1.0		ug/L			07/20/13 22:39	1
Chloroform	**3.0**		1.0		ug/L			07/20/13 22:39	1
Chloromethane	<1.0		1.0		ug/L			07/20/13 22:39	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/20/13 22:39	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/20/13 22:39	1
cis-1,2-Dichloroethene	**3.7**		1.0		ug/L			07/20/13 22:39	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/20/13 22:39	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/20/13 22:39	1
Dibromomethane	<1.0		1.0		ug/L			07/20/13 22:39	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/20/13 22:39	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/20/13 22:39	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/20/13 22:39	1
1,1-Dichloroethene	**9.8**		1.0		ug/L			07/20/13 22:39	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/20/13 22:39	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/20/13 22:39	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/20/13 22:39	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/20/13 22:39	1
1,4-Dioxane	<50		50		ug/L			07/20/13 22:39	1
Ethylbenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
Hexachlorobutadiene	**1.4**		1.0		ug/L			07/20/13 22:39	1
Isopropylbenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
Methylene Chloride	<1.0		1.0		ug/L			07/20/13 22:39	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/20/13 22:39	1
Naphthalene	**1.1**		1.0		ug/L			07/20/13 22:39	1
n-Butylbenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
N-Propylbenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
o-Xylene	<1.0		1.0		ug/L			07/20/13 22:39	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/20/13 22:39	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
Styrene	<1.0		1.0		ug/L			07/20/13 22:39	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/20/13 22:39	1

Client Sample ID: MW-5
Date Collected: 07/09/13 15:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/20/13 22:39	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/20/13 22:39	1
Tetrachloroethene	<1.0		1.0		ug/L			07/20/13 22:39	1
Toluene	<1.0		1.0		ug/L			07/20/13 22:39	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/20/13 22:39	1
1,2,3-Trichlorobenzene	**1.5**		1.0		ug/L			07/20/13 22:39	1
1,2,4-Trichlorobenzene	**1.5**		1.0		ug/L			07/20/13 22:39	1
1,1,1-Trichloroethane	**1.4**		1.0		ug/L			07/20/13 22:39	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/20/13 22:39	1
Trichloroethene	**370**		10		ug/L			07/18/13 17:33	10
Trichlorofluoromethane	<1.0		1.0		ug/L			07/20/13 22:39	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/20/13 22:39	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/20/13 22:39	1
Vinyl chloride	<1.0		1.0		ug/L			07/20/13 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*07/18/13 17:33*	*10*
4-Bromofluorobenzene (Surr)	*80*		*66 - 117*		*07/20/13 22:39*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 121*		*07/18/13 17:33*	*10*
Dibromofluoromethane (Surr)	*99*		*75 - 121*		*07/20/13 22:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*07/18/13 17:33*	*10*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 129*		*07/20/13 22:39*	*1*
Toluene-d8 (Surr)	*84*		*74 - 115*		*07/18/13 17:33*	*10*
Toluene-d8 (Surr)	*81*		*74 - 115*		*07/20/13 22:39*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-3
Date Collected: 07/09/13 11:20
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/18/13 17:56	1
Bromobenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
Bromochloromethane	<1.0		1.0		ug/L			07/18/13 17:56	1
Bromodichloromethane	<1.0		1.0		ug/L			07/18/13 17:56	1
Bromoform	<1.0		1.0		ug/L			07/18/13 17:56	1
Bromomethane	<1.0		1.0		ug/L			07/18/13 17:56	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/18/13 17:56	1
Chlorobenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/18/13 17:56	1
Chloroethane	<1.0		1.0		ug/L			07/18/13 17:56	1
Chloroform	**3.2**		1.0		ug/L			07/18/13 17:56	1
Chloromethane	<1.0		1.0		ug/L			07/18/13 17:56	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 17:56	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 17:56	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 17:56	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/18/13 17:56	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/18/13 17:56	1
Dibromomethane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/18/13 17:56	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/18/13 17:56	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/18/13 17:56	1
1,4-Dioxane	<50		50		ug/L			07/18/13 17:56	1
Ethylbenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/18/13 17:56	1
Isopropylbenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
Methylene Chloride	<1.0		1.0		ug/L			07/18/13 17:56	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/18/13 17:56	1
Naphthalene	<1.0		1.0		ug/L			07/18/13 17:56	1
n-Butylbenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
N-Propylbenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
o-Xylene	<1.0		1.0		ug/L			07/18/13 17:56	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/18/13 17:56	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
Styrene	<1.0		1.0		ug/L			07/18/13 17:56	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 17:56	1
Tetrachloroethene	<1.0		1.0		ug/L			07/18/13 17:56	1
Toluene	<1.0		1.0		ug/L			07/18/13 17:56	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 17:56	1
1,2,3-Trichlorobenzene	<1.0	*	1.0		ug/L			07/18/13 17:56	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-3
Date Collected: 07/09/13 11:20
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/18/13 17:56	1
Trichloroethene	**2.2**		1.0		ug/L			07/18/13 17:56	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/18/13 17:56	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 17:56	1
Vinyl chloride	<1.0		1.0		ug/L			07/18/13 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*07/18/13 17:56*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 121*		*07/18/13 17:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*63 - 129*		*07/18/13 17:56*	*1*
Toluene-d8 (Surr)	*80*		*74 - 115*		*07/18/13 17:56*	*1*

Client Sample ID: MW-22
Date Collected: 07/09/13 18:35
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/18/13 18:18	1
Bromobenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
Bromochloromethane	<1.0		1.0		ug/L			07/18/13 18:18	1
Bromodichloromethane	<1.0		1.0		ug/L			07/18/13 18:18	1
Bromoform	<1.0		1.0		ug/L			07/18/13 18:18	1
Bromomethane	<1.0		1.0		ug/L			07/18/13 18:18	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/18/13 18:18	1
Chlorobenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/18/13 18:18	1
Chloroethane	<1.0		1.0		ug/L			07/18/13 18:18	1
Chloroform	<1.0		1.0		ug/L			07/18/13 18:18	1
Chloromethane	<1.0		1.0		ug/L			07/18/13 18:18	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 18:18	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 18:18	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 18:18	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/18/13 18:18	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/18/13 18:18	1
Dibromomethane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/18/13 18:18	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/18/13 18:18	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/18/13 18:18	1
1,4-Dioxane	<50		50		ug/L			07/18/13 18:18	1
Ethylbenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/18/13 18:18	1
Isopropylbenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
Methylene Chloride	<1.0		1.0		ug/L			07/18/13 18:18	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/18/13 18:18	1
Naphthalene	<1.0		1.0		ug/L			07/18/13 18:18	1
n-Butylbenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
N-Propylbenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
o-Xylene	<1.0		1.0		ug/L			07/18/13 18:18	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/18/13 18:18	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
Styrene	<1.0		1.0		ug/L			07/18/13 18:18	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 18:18	1
Tetrachloroethene	<1.0		1.0		ug/L			07/18/13 18:18	1
Toluene	<1.0		1.0		ug/L			07/18/13 18:18	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 18:18	1
1,2,3-Trichlorobenzene	<1.0	*	1.0		ug/L			07/18/13 18:18	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-22
Date Collected: 07/09/13 18:35
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/18/13 18:18	1
Trichloroethene	<1.0		1.0		ug/L			07/18/13 18:18	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/18/13 18:18	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 18:18	1
Vinyl chloride	<1.0		1.0		ug/L			07/18/13 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*66 - 117*		*07/18/13 18:18*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 121*		*07/18/13 18:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*07/18/13 18:18*	*1*
Toluene-d8 (Surr)	*80*		*74 - 115*		*07/18/13 18:18*	*1*

Client Sample ID: MW-20
Date Collected: 07/09/13 12:35
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-5
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			07/20/13 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*74 - 120*		*07/20/13 21:24*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Bromobenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Bromochloromethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Bromodichloromethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Bromoform	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Bromomethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Carbon tetrachloride	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Chlorobenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Chlorodibromomethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Chloroethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Chloroform	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Chloromethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
2-Chlorotoluene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
4-Chlorotoluene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
cis-1,2-Dichloroethene	**360**		13		ug/L			07/18/13 18:40	12.5
1,2-Dibromo-3-Chloropropane	<2.5		2.5		ug/L			07/20/13 23:01	1.25
1,2-Dibromoethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Dibromomethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,2-Dichlorobenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,3-Dichlorobenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,4-Dichlorobenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Dichlorodifluoromethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,1-Dichloroethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,2-Dichloroethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,1-Dichloroethene	**4.8**		1.3		ug/L			07/20/13 23:01	1.25
1,2-Dichloropropane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,3-Dichloropropane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
2,2-Dichloropropane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,1-Dichloropropene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,4-Dioxane	<63		63		ug/L			07/20/13 23:01	1.25
Ethylbenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Hexachlorobutadiene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Isopropylbenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Methylene Chloride	<1.3		1.3		ug/L			07/20/13 23:01	1.25
m-Xylene & p-Xylene	<2.5		2.5		ug/L			07/20/13 23:01	1.25
Naphthalene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
n-Butylbenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
N-Propylbenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
o-Xylene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
p-Isopropyltoluene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
sec-Butylbenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Styrene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
tert-Butylbenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-20
Date Collected: 07/09/13 12:35
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,1,2,2-Tetrachloroethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Tetrachloroethene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Toluene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
trans-1,2-Dichloroethene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,2,3-Trichlorobenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,2,4-Trichlorobenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,1,1-Trichloroethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,1,2-Trichloroethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Trichloroethene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Trichlorofluoromethane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,2,3-Trichloropropane	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,2,4-Trimethylbenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
1,3,5-Trimethylbenzene	<1.3		1.3		ug/L			07/20/13 23:01	1.25
Vinyl chloride	**1.6**		1.3		ug/L			07/20/13 23:01	1.25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*66 - 117*		*07/18/13 18:40*	*12.5*
4-Bromofluorobenzene (Surr)	*80*		*66 - 117*		*07/20/13 23:01*	*1.25*
Dibromofluoromethane (Surr)	*110*		*75 - 121*		*07/18/13 18:40*	*12.5*
Dibromofluoromethane (Surr)	*100*		*75 - 121*		*07/20/13 23:01*	*1.25*
1,2-Dichloroethane-d4 (Surr)	*106*		*63 - 129*		*07/18/13 18:40*	*12.5*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 129*		*07/20/13 23:01*	*1.25*
Toluene-d8 (Surr)	*83*		*74 - 115*		*07/18/13 18:40*	*12.5*
Toluene-d8 (Surr)	*79*		*74 - 115*		*07/20/13 23:01*	*1.25*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-25
Date Collected: 07/09/13 17:10
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-6
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			07/20/13 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*74 - 120*		*07/20/13 21:46*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<13		13		ug/L			07/20/13 23:23	12.5
Bromobenzene	<13		13		ug/L			07/20/13 23:23	12.5
Bromochloromethane	<13		13		ug/L			07/20/13 23:23	12.5
Bromodichloromethane	<13		13		ug/L			07/20/13 23:23	12.5
Bromoform	<13		13		ug/L			07/20/13 23:23	12.5
Bromomethane	<13		13		ug/L			07/20/13 23:23	12.5
Carbon tetrachloride	<13		13		ug/L			07/20/13 23:23	12.5
Chlorobenzene	<13		13		ug/L			07/20/13 23:23	12.5
Chlorodibromomethane	<13		13		ug/L			07/20/13 23:23	12.5
Chloroethane	<13		13		ug/L			07/20/13 23:23	12.5
Chloroform	<13		13		ug/L			07/20/13 23:23	12.5
Chloromethane	<13		13		ug/L			07/20/13 23:23	12.5
2-Chlorotoluene	<13		13		ug/L			07/20/13 23:23	12.5
4-Chlorotoluene	<13		13		ug/L			07/20/13 23:23	12.5
cis-1,2-Dichloroethene	**840**		130		ug/L			07/18/13 19:03	125
1,2-Dibromo-3-Chloropropane	<25		25		ug/L			07/20/13 23:23	12.5
1,2-Dibromoethane	<13		13		ug/L			07/20/13 23:23	12.5
Dibromomethane	<13		13		ug/L			07/20/13 23:23	12.5
1,2-Dichlorobenzene	<13		13		ug/L			07/20/13 23:23	12.5
1,3-Dichlorobenzene	<13		13		ug/L			07/20/13 23:23	12.5
1,4-Dichlorobenzene	<13		13		ug/L			07/20/13 23:23	12.5
Dichlorodifluoromethane	<13		13		ug/L			07/20/13 23:23	12.5
1,1-Dichloroethane	<13		13		ug/L			07/20/13 23:23	12.5
1,2-Dichloroethane	<13		13		ug/L			07/20/13 23:23	12.5
1,1-Dichloroethene	**27**		13		ug/L			07/20/13 23:23	12.5
1,2-Dichloropropane	<13		13		ug/L			07/20/13 23:23	12.5
1,3-Dichloropropane	<13		13		ug/L			07/20/13 23:23	12.5
2,2-Dichloropropane	<13		13		ug/L			07/20/13 23:23	12.5
1,1-Dichloropropene	<13		13		ug/L			07/20/13 23:23	12.5
1,4-Dioxane	<630		630		ug/L			07/20/13 23:23	12.5
Ethylbenzene	<13		13		ug/L			07/20/13 23:23	12.5
Hexachlorobutadiene	<13		13		ug/L			07/20/13 23:23	12.5
Isopropylbenzene	<13		13		ug/L			07/20/13 23:23	12.5
Methylene Chloride	<13		13		ug/L			07/20/13 23:23	12.5
m-Xylene & p-Xylene	<25		25		ug/L			07/20/13 23:23	12.5
Naphthalene	<13		13		ug/L			07/20/13 23:23	12.5
n-Butylbenzene	<13		13		ug/L			07/20/13 23:23	12.5
N-Propylbenzene	<13		13		ug/L			07/20/13 23:23	12.5
o-Xylene	<13		13		ug/L			07/20/13 23:23	12.5
p-Isopropyltoluene	<13		13		ug/L			07/20/13 23:23	12.5
sec-Butylbenzene	<13		13		ug/L			07/20/13 23:23	12.5
Styrene	<13		13		ug/L			07/20/13 23:23	12.5
tert-Butylbenzene	<13		13		ug/L			07/20/13 23:23	12.5

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-25
Date Collected: 07/09/13 17:10
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<13		13		ug/L			07/20/13 23:23	12.5
1,1,2,2-Tetrachloroethane	<13		13		ug/L			07/20/13 23:23	12.5
Tetrachloroethene	<13		13		ug/L			07/20/13 23:23	12.5
Toluene	<13		13		ug/L			07/20/13 23:23	12.5
trans-1,2-Dichloroethene	<13		13		ug/L			07/20/13 23:23	12.5
1,2,3-Trichlorobenzene	<13		13		ug/L			07/20/13 23:23	12.5
1,2,4-Trichlorobenzene	<13		13		ug/L			07/20/13 23:23	12.5
1,1,1-Trichloroethane	<13		13		ug/L			07/20/13 23:23	12.5
1,1,2-Trichloroethane	<13		13		ug/L			07/20/13 23:23	12.5
Trichloroethene	**4500**		130		ug/L			07/18/13 19:03	125
Trichlorofluoromethane	<13		13		ug/L			07/20/13 23:23	12.5
1,2,3-Trichloropropane	<13		13		ug/L			07/20/13 23:23	12.5
1,2,4-Trimethylbenzene	<13		13		ug/L			07/20/13 23:23	12.5
1,3,5-Trimethylbenzene	<13		13		ug/L			07/20/13 23:23	12.5
Vinyl chloride	**21**		13		ug/L			07/20/13 23:23	12.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*66 - 117*		*07/18/13 19:03*	*125*
4-Bromofluorobenzene (Surr)	*78*		*66 - 117*		*07/20/13 23:23*	*12.5*
Dibromofluoromethane (Surr)	*102*		*75 - 121*		*07/18/13 19:03*	*125*
Dibromofluoromethane (Surr)	*98*		*75 - 121*		*07/20/13 23:23*	*12.5*
1,2-Dichloroethane-d4 (Surr)	*105*		*63 - 129*		*07/18/13 19:03*	*125*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 129*		*07/20/13 23:23*	*12.5*
Toluene-d8 (Surr)	*78*		*74 - 115*		*07/18/13 19:03*	*125*
Toluene-d8 (Surr)	*79*		*74 - 115*		*07/20/13 23:23*	*12.5*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-27
Date Collected: 07/10/13 09:55
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-7
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			07/20/13 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*74 - 120*		*07/20/13 22:09*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/18/13 19:25	1
Bromobenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
Bromochloromethane	<1.0		1.0		ug/L			07/18/13 19:25	1
Bromodichloromethane	<1.0		1.0		ug/L			07/18/13 19:25	1
Bromoform	<1.0		1.0		ug/L			07/18/13 19:25	1
Bromomethane	<1.0		1.0		ug/L			07/18/13 19:25	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/18/13 19:25	1
Chlorobenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/18/13 19:25	1
Chloroethane	<1.0		1.0		ug/L			07/18/13 19:25	1
Chloroform	<1.0		1.0		ug/L			07/18/13 19:25	1
Chloromethane	<1.0		1.0		ug/L			07/18/13 19:25	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 19:25	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 19:25	1
cis-1,2-Dichloroethene	**8.8**		1.0		ug/L			07/18/13 19:25	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/18/13 19:25	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/18/13 19:25	1
Dibromomethane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,1-Dichloroethene	**1.2**		1.0		ug/L			07/18/13 19:25	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/18/13 19:25	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/18/13 19:25	1
1,4-Dioxane	<50		50		ug/L			07/18/13 19:25	1
Ethylbenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/18/13 19:25	1
Isopropylbenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
Methylene Chloride	<1.0		1.0		ug/L			07/18/13 19:25	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/18/13 19:25	1
Naphthalene	<1.0		1.0		ug/L			07/18/13 19:25	1
n-Butylbenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
N-Propylbenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
o-Xylene	<1.0		1.0		ug/L			07/18/13 19:25	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/18/13 19:25	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
Styrene	<1.0		1.0		ug/L			07/18/13 19:25	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/18/13 19:25	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-27
Date Collected: 07/10/13 09:55
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 19:25	1
Tetrachloroethene	<1.0		1.0		ug/L			07/18/13 19:25	1
Toluene	<1.0		1.0		ug/L			07/18/13 19:25	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 19:25	1
1,2,3-Trichlorobenzene	<1.0	*	1.0		ug/L			07/18/13 19:25	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/18/13 19:25	1
Trichloroethene	**13**		1.0		ug/L			07/18/13 19:25	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/18/13 19:25	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 19:25	1
Vinyl chloride	<1.0		1.0		ug/L			07/18/13 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*66 - 117*		*07/18/13 19:25*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 121*		*07/18/13 19:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*63 - 129*		*07/18/13 19:25*	*1*
Toluene-d8 (Surr)	*81*		*74 - 115*		*07/18/13 19:25*	*1*

Client Sample ID: MW-28
Date Collected: 07/10/13 10:17
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-8
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			07/20/13 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*74 - 120*		*07/20/13 22:33*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/18/13 19:47	1
Bromobenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
Bromochloromethane	<1.0		1.0		ug/L			07/18/13 19:47	1
Bromodichloromethane	<1.0		1.0		ug/L			07/18/13 19:47	1
Bromoform	<1.0		1.0		ug/L			07/18/13 19:47	1
Bromomethane	<1.0		1.0		ug/L			07/18/13 19:47	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/18/13 19:47	1
Chlorobenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/18/13 19:47	1
Chloroethane	<1.0		1.0		ug/L			07/18/13 19:47	1
Chloroform	<1.0		1.0		ug/L			07/18/13 19:47	1
Chloromethane	<1.0		1.0		ug/L			07/18/13 19:47	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 19:47	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 19:47	1
cis-1,2-Dichloroethene	**7.2**		1.0		ug/L			07/18/13 19:47	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/18/13 19:47	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/18/13 19:47	1
Dibromomethane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/18/13 19:47	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/18/13 19:47	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/18/13 19:47	1
1,4-Dioxane	<50		50		ug/L			07/18/13 19:47	1
Ethylbenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/18/13 19:47	1
Isopropylbenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
Methylene Chloride	<1.0		1.0		ug/L			07/18/13 19:47	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/18/13 19:47	1
Naphthalene	<1.0		1.0		ug/L			07/18/13 19:47	1
n-Butylbenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
N-Propylbenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
o-Xylene	<1.0		1.0		ug/L			07/18/13 19:47	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/18/13 19:47	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
Styrene	<1.0		1.0		ug/L			07/18/13 19:47	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/18/13 19:47	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-28
Date Collected: 07/10/13 10:17
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 19:47	1
Tetrachloroethene	<1.0		1.0		ug/L			07/18/13 19:47	1
Toluene	<1.0		1.0		ug/L			07/18/13 19:47	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 19:47	1
1,2,3-Trichlorobenzene	<1.0	*	1.0		ug/L			07/18/13 19:47	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/18/13 19:47	1
Trichloroethene	**1.2**		1.0		ug/L			07/18/13 19:47	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/18/13 19:47	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 19:47	1
Vinyl chloride	<1.0		1.0		ug/L			07/18/13 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*07/18/13 19:47*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 121*		*07/18/13 19:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*63 - 129*		*07/18/13 19:47*	*1*
Toluene-d8 (Surr)	*79*		*74 - 115*		*07/18/13 19:47*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-10
Date Collected: 07/10/13 12:46
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/18/13 20:09	1
Bromobenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
Bromochloromethane	<1.0		1.0		ug/L			07/18/13 20:09	1
Bromodichloromethane	<1.0		1.0		ug/L			07/18/13 20:09	1
Bromoform	<1.0		1.0		ug/L			07/18/13 20:09	1
Bromomethane	<1.0		1.0		ug/L			07/18/13 20:09	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/18/13 20:09	1
Chlorobenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/18/13 20:09	1
Chloroethane	<1.0		1.0		ug/L			07/18/13 20:09	1
Chloroform	**1.5**		1.0		ug/L			07/18/13 20:09	1
Chloromethane	<1.0		1.0		ug/L			07/18/13 20:09	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 20:09	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 20:09	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 20:09	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/18/13 20:09	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/18/13 20:09	1
Dibromomethane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/18/13 20:09	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/18/13 20:09	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/18/13 20:09	1
1,4-Dioxane	<50		50		ug/L			07/18/13 20:09	1
Ethylbenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/18/13 20:09	1
Isopropylbenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
Methylene Chloride	<1.0		1.0		ug/L			07/18/13 20:09	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/18/13 20:09	1
Naphthalene	<1.0		1.0		ug/L			07/18/13 20:09	1
n-Butylbenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
N-Propylbenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
o-Xylene	<1.0		1.0		ug/L			07/18/13 20:09	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/18/13 20:09	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
Styrene	<1.0		1.0		ug/L			07/18/13 20:09	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 20:09	1
Tetrachloroethene	<1.0		1.0		ug/L			07/18/13 20:09	1
Toluene	<1.0		1.0		ug/L			07/18/13 20:09	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 20:09	1
1,2,3-Trichlorobenzene	<1.0	*	1.0		ug/L			07/18/13 20:09	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-10
Date Collected: 07/10/13 12:46
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/18/13 20:09	1
Trichloroethene	**1.4**		1.0		ug/L			07/18/13 20:09	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/18/13 20:09	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 20:09	1
Vinyl chloride	<1.0		1.0		ug/L			07/18/13 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*66 - 117*		*07/18/13 20:09*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 121*		*07/18/13 20:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*		*07/18/13 20:09*	*1*
Toluene-d8 (Surr)	*76*		*74 - 115*		*07/18/13 20:09*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-14
Date Collected: 07/10/13 11:35
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-10
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			07/20/13 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*74 - 120*		*07/20/13 22:56*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<10		10		ug/L			07/20/13 23:45	10
Bromobenzene	<10		10		ug/L			07/20/13 23:45	10
Bromochloromethane	<10		10		ug/L			07/20/13 23:45	10
Bromodichloromethane	<10		10		ug/L			07/20/13 23:45	10
Bromoform	<10		10		ug/L			07/20/13 23:45	10
Bromomethane	<10		10		ug/L			07/20/13 23:45	10
Carbon tetrachloride	<10		10		ug/L			07/20/13 23:45	10
Chlorobenzene	<10		10		ug/L			07/20/13 23:45	10
Chlorodibromomethane	<10		10		ug/L			07/20/13 23:45	10
Chloroethane	<10		10		ug/L			07/20/13 23:45	10
Chloroform	<10		10		ug/L			07/20/13 23:45	10
Chloromethane	<10		10		ug/L			07/20/13 23:45	10
2-Chlorotoluene	<10		10		ug/L			07/20/13 23:45	10
4-Chlorotoluene	<10		10		ug/L			07/20/13 23:45	10
cis-1,2-Dichloroethene	**350**		10		ug/L			07/20/13 23:45	10
1,2-Dibromo-3-Chloropropane	<20		20		ug/L			07/20/13 23:45	10
1,2-Dibromoethane	<10		10		ug/L			07/20/13 23:45	10
Dibromomethane	<10		10		ug/L			07/20/13 23:45	10
1,2-Dichlorobenzene	<10		10		ug/L			07/20/13 23:45	10
1,3-Dichlorobenzene	<10		10		ug/L			07/20/13 23:45	10
1,4-Dichlorobenzene	<10		10		ug/L			07/20/13 23:45	10
Dichlorodifluoromethane	<10		10		ug/L			07/20/13 23:45	10
1,1-Dichloroethane	<10		10		ug/L			07/20/13 23:45	10
1,2-Dichloroethane	<10		10		ug/L			07/20/13 23:45	10
1,1-Dichloroethene	**57**		10		ug/L			07/20/13 23:45	10
1,2-Dichloropropane	<10		10		ug/L			07/20/13 23:45	10
1,3-Dichloropropane	<10		10		ug/L			07/20/13 23:45	10
2,2-Dichloropropane	<10		10		ug/L			07/20/13 23:45	10
1,1-Dichloropropene	<10		10		ug/L			07/20/13 23:45	10
1,4-Dioxane	<500		500		ug/L			07/20/13 23:45	10
Ethylbenzene	<10		10		ug/L			07/20/13 23:45	10
Hexachlorobutadiene	<10		10		ug/L			07/20/13 23:45	10
Isopropylbenzene	<10		10		ug/L			07/20/13 23:45	10
Methylene Chloride	<10		10		ug/L			07/20/13 23:45	10
m-Xylene & p-Xylene	<20		20		ug/L			07/20/13 23:45	10
Naphthalene	<10		10		ug/L			07/20/13 23:45	10
n-Butylbenzene	<10		10		ug/L			07/20/13 23:45	10
N-Propylbenzene	<10		10		ug/L			07/20/13 23:45	10
o-Xylene	<10		10		ug/L			07/20/13 23:45	10
p-Isopropyltoluene	<10		10		ug/L			07/20/13 23:45	10
sec-Butylbenzene	<10		10		ug/L			07/20/13 23:45	10
Styrene	<10		10		ug/L			07/20/13 23:45	10
tert-Butylbenzene	<10		10		ug/L			07/20/13 23:45	10

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-14
Date Collected: 07/10/13 11:35
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10		10		ug/L			07/20/13 23:45	10
1,1,2,2-Tetrachloroethane	<10		10		ug/L			07/20/13 23:45	10
Tetrachloroethene	<10		10		ug/L			07/20/13 23:45	10
Toluene	<10		10		ug/L			07/20/13 23:45	10
trans-1,2-Dichloroethene	<10		10		ug/L			07/20/13 23:45	10
1,2,3-Trichlorobenzene	<10		10		ug/L			07/20/13 23:45	10
1,2,4-Trichlorobenzene	<10		10		ug/L			07/20/13 23:45	10
1,1,1-Trichloroethane	<10		10		ug/L			07/20/13 23:45	10
1,1,2-Trichloroethane	<10		10		ug/L			07/20/13 23:45	10
Trichloroethene	**2900**		100		ug/L			07/19/13 15:24	100
Trichlorofluoromethane	<10		10		ug/L			07/20/13 23:45	10
1,2,3-Trichloropropane	<10		10		ug/L			07/20/13 23:45	10
1,2,4-Trimethylbenzene	<10		10		ug/L			07/20/13 23:45	10
1,3,5-Trimethylbenzene	<10		10		ug/L			07/20/13 23:45	10
Vinyl chloride	<10		10		ug/L			07/20/13 23:45	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*66 - 117*		*07/19/13 15:24*	*100*
4-Bromofluorobenzene (Surr)	*81*		*66 - 117*		*07/20/13 23:45*	*10*
Dibromofluoromethane (Surr)	*94*		*75 - 121*		*07/19/13 15:24*	*100*
Dibromofluoromethane (Surr)	*107*		*75 - 121*		*07/20/13 23:45*	*10*
1,2-Dichloroethane-d4 (Surr)	*92*		*63 - 129*		*07/19/13 15:24*	*100*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*		*07/20/13 23:45*	*10*
Toluene-d8 (Surr)	*78*		*74 - 115*		*07/19/13 15:24*	*100*
Toluene-d8 (Surr)	*84*		*74 - 115*		*07/20/13 23:45*	*10*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: DUP-1
Date Collected: 07/10/13 12:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-11
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			07/21/13 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*74 - 120*		*07/21/13 00:07*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<10		10		ug/L			07/21/13 00:07	10
Bromobenzene	<10		10		ug/L			07/21/13 00:07	10
Bromochloromethane	<10		10		ug/L			07/21/13 00:07	10
Bromodichloromethane	<10		10		ug/L			07/21/13 00:07	10
Bromoform	<10		10		ug/L			07/21/13 00:07	10
Bromomethane	<10		10		ug/L			07/21/13 00:07	10
Carbon tetrachloride	<10		10		ug/L			07/21/13 00:07	10
Chlorobenzene	<10		10		ug/L			07/21/13 00:07	10
Chlorodibromomethane	<10		10		ug/L			07/21/13 00:07	10
Chloroethane	<10		10		ug/L			07/21/13 00:07	10
Chloroform	<10		10		ug/L			07/21/13 00:07	10
Chloromethane	<10		10		ug/L			07/21/13 00:07	10
2-Chlorotoluene	<10		10		ug/L			07/21/13 00:07	10
4-Chlorotoluene	<10		10		ug/L			07/21/13 00:07	10
cis-1,2-Dichloroethene	**360**		10		ug/L			07/21/13 00:07	10
1,2-Dibromo-3-Chloropropane	<20		20		ug/L			07/21/13 00:07	10
1,2-Dibromoethane	<10		10		ug/L			07/21/13 00:07	10
Dibromomethane	<10		10		ug/L			07/21/13 00:07	10
1,2-Dichlorobenzene	<10		10		ug/L			07/21/13 00:07	10
1,3-Dichlorobenzene	<10		10		ug/L			07/21/13 00:07	10
1,4-Dichlorobenzene	<10		10		ug/L			07/21/13 00:07	10
Dichlorodifluoromethane	<10		10		ug/L			07/21/13 00:07	10
1,1-Dichloroethane	<10		10		ug/L			07/21/13 00:07	10
1,2-Dichloroethane	<10		10		ug/L			07/21/13 00:07	10
1,1-Dichloroethene	**56**		10		ug/L			07/21/13 00:07	10
1,2-Dichloropropane	<10		10		ug/L			07/21/13 00:07	10
1,3-Dichloropropane	<10		10		ug/L			07/21/13 00:07	10
2,2-Dichloropropane	<10		10		ug/L			07/21/13 00:07	10
1,1-Dichloropropene	<10		10		ug/L			07/21/13 00:07	10
1,4-Dioxane	<500		500		ug/L			07/21/13 00:07	10
Ethylbenzene	<10		10		ug/L			07/21/13 00:07	10
Hexachlorobutadiene	<10		10		ug/L			07/21/13 00:07	10
Isopropylbenzene	<10		10		ug/L			07/21/13 00:07	10
Methylene Chloride	<10		10		ug/L			07/21/13 00:07	10
m-Xylene & p-Xylene	<20		20		ug/L			07/21/13 00:07	10
Naphthalene	<10		10		ug/L			07/21/13 00:07	10
n-Butylbenzene	<10		10		ug/L			07/21/13 00:07	10
N-Propylbenzene	<10		10		ug/L			07/21/13 00:07	10
o-Xylene	<10		10		ug/L			07/21/13 00:07	10
p-Isopropyltoluene	<10		10		ug/L			07/21/13 00:07	10
sec-Butylbenzene	<10		10		ug/L			07/21/13 00:07	10
Styrene	<10		10		ug/L			07/21/13 00:07	10
tert-Butylbenzene	<10		10		ug/L			07/21/13 00:07	10

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: DUP-1
Date Collected: 07/10/13 12:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10		10		ug/L			07/21/13 00:07	10
1,1,2,2-Tetrachloroethane	<10		10		ug/L			07/21/13 00:07	10
Tetrachloroethene	<10		10		ug/L			07/21/13 00:07	10
Toluene	<10		10		ug/L			07/21/13 00:07	10
trans-1,2-Dichloroethene	<10		10		ug/L			07/21/13 00:07	10
1,2,3-Trichlorobenzene	<10		10		ug/L			07/21/13 00:07	10
1,2,4-Trichlorobenzene	<10		10		ug/L			07/21/13 00:07	10
1,1,1-Trichloroethane	<10		10		ug/L			07/21/13 00:07	10
1,1,2-Trichloroethane	<10		10		ug/L			07/21/13 00:07	10
Trichloroethene	**3100**		100		ug/L			07/19/13 15:47	100
Trichlorofluoromethane	<10		10		ug/L			07/21/13 00:07	10
1,2,3-Trichloropropane	<10		10		ug/L			07/21/13 00:07	10
1,2,4-Trimethylbenzene	<10		10		ug/L			07/21/13 00:07	10
1,3,5-Trimethylbenzene	<10		10		ug/L			07/21/13 00:07	10
Vinyl chloride	<10		10		ug/L			07/21/13 00:07	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*66 - 117*		*07/19/13 15:47*	*100*
4-Bromofluorobenzene (Surr)	*76*		*66 - 117*		*07/21/13 00:07*	*10*
Dibromofluoromethane (Surr)	*101*		*75 - 121*		*07/19/13 15:47*	*100*
Dibromofluoromethane (Surr)	*103*		*75 - 121*		*07/21/13 00:07*	*10*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*		*07/19/13 15:47*	*100*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*		*07/21/13 00:07*	*10*
Toluene-d8 (Surr)	*81*		*74 - 115*		*07/19/13 15:47*	*100*
Toluene-d8 (Surr)	*79*		*74 - 115*		*07/21/13 00:07*	*10*

Client Sample ID: MW-19
Date Collected: 07/10/13 13:22
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-12
Matrix: Water

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			07/21/13 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*74 - 120*		*07/21/13 00:30*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<14		14		ug/L			07/21/13 00:30	14.28
Bromobenzene	<14		14		ug/L			07/21/13 00:30	14.28
Bromochloromethane	<14		14		ug/L			07/21/13 00:30	14.28
Bromodichloromethane	<14		14		ug/L			07/21/13 00:30	14.28
Bromoform	<14		14		ug/L			07/21/13 00:30	14.28
Bromomethane	<14		14		ug/L			07/21/13 00:30	14.28
Carbon tetrachloride	<14		14		ug/L			07/21/13 00:30	14.28
Chlorobenzene	<14		14		ug/L			07/21/13 00:30	14.28
Chlorodibromomethane	<14		14		ug/L			07/21/13 00:30	14.28
Chloroethane	<14		14		ug/L			07/21/13 00:30	14.28
Chloroform	<14		14		ug/L			07/21/13 00:30	14.28
Chloromethane	<14		14		ug/L			07/21/13 00:30	14.28
2-Chlorotoluene	<14		14		ug/L			07/21/13 00:30	14.28
4-Chlorotoluene	<14		14		ug/L			07/21/13 00:30	14.28
cis-1,2-Dichloroethene	**18**		14		ug/L			07/21/13 00:30	14.28
1,2-Dibromo-3-Chloropropane	<29		29		ug/L			07/21/13 00:30	14.28
1,2-Dibromoethane	<14		14		ug/L			07/21/13 00:30	14.28
Dibromomethane	<14		14		ug/L			07/21/13 00:30	14.28
1,2-Dichlorobenzene	<14		14		ug/L			07/21/13 00:30	14.28
1,3-Dichlorobenzene	<14		14		ug/L			07/21/13 00:30	14.28
1,4-Dichlorobenzene	<14		14		ug/L			07/21/13 00:30	14.28
Dichlorodifluoromethane	<14		14		ug/L			07/21/13 00:30	14.28
1,1-Dichloroethane	<14		14		ug/L			07/21/13 00:30	14.28
1,2-Dichloroethane	<14		14		ug/L			07/21/13 00:30	14.28
1,1-Dichloroethene	**33**		14		ug/L			07/21/13 00:30	14.28
1,2-Dichloropropane	<14		14		ug/L			07/21/13 00:30	14.28
1,3-Dichloropropane	<14		14		ug/L			07/21/13 00:30	14.28
2,2-Dichloropropane	<14		14		ug/L			07/21/13 00:30	14.28
1,1-Dichloropropene	<14		14		ug/L			07/21/13 00:30	14.28
1,4-Dioxane	<710		710		ug/L			07/21/13 00:30	14.28
Ethylbenzene	<14		14		ug/L			07/21/13 00:30	14.28
Hexachlorobutadiene	<14		14		ug/L			07/21/13 00:30	14.28
Isopropylbenzene	<14		14		ug/L			07/21/13 00:30	14.28
Methylene Chloride	<14		14		ug/L			07/21/13 00:30	14.28
m-Xylene & p-Xylene	<29		29		ug/L			07/21/13 00:30	14.28
Naphthalene	<14		14		ug/L			07/21/13 00:30	14.28
n-Butylbenzene	<14		14		ug/L			07/21/13 00:30	14.28
N-Propylbenzene	<14		14		ug/L			07/21/13 00:30	14.28
o-Xylene	<14		14		ug/L			07/21/13 00:30	14.28
p-Isopropyltoluene	<14		14		ug/L			07/21/13 00:30	14.28
sec-Butylbenzene	<14		14		ug/L			07/21/13 00:30	14.28
Styrene	<14		14		ug/L			07/21/13 00:30	14.28
tert-Butylbenzene	<14		14		ug/L			07/21/13 00:30	14.28

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MW-19
Date Collected: 07/10/13 13:22
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-12
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<14		14		ug/L			07/21/13 00:30	14.28
1,1,2,2-Tetrachloroethane	<14		14		ug/L			07/21/13 00:30	14.28
Tetrachloroethene	<14		14		ug/L			07/21/13 00:30	14.28
Toluene	<14		14		ug/L			07/21/13 00:30	14.28
trans-1,2-Dichloroethene	<14		14		ug/L			07/21/13 00:30	14.28
1,2,3-Trichlorobenzene	<14		14		ug/L			07/21/13 00:30	14.28
1,2,4-Trichlorobenzene	<14		14		ug/L			07/21/13 00:30	14.28
1,1,1-Trichloroethane	<14		14		ug/L			07/21/13 00:30	14.28
1,1,2-Trichloroethane	<14		14		ug/L			07/21/13 00:30	14.28
Trichloroethene	**5000**		140		ug/L			07/18/13 21:16	142.86
Trichlorofluoromethane	<14		14		ug/L			07/21/13 00:30	14.28
1,2,3-Trichloropropane	<14		14		ug/L			07/21/13 00:30	14.28
1,2,4-Trimethylbenzene	<14		14		ug/L			07/21/13 00:30	14.28
1,3,5-Trimethylbenzene	<14		14		ug/L			07/21/13 00:30	14.28
Vinyl chloride	<14		14		ug/L			07/21/13 00:30	14.28

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*66 - 117*		*07/18/13 21:16*	*142.86*
4-Bromofluorobenzene (Surr)	*78*		*66 - 117*		*07/21/13 00:30*	*14.28*
Dibromofluoromethane (Surr)	*102*		*75 - 121*		*07/18/13 21:16*	*142.86*
Dibromofluoromethane (Surr)	*104*		*75 - 121*		*07/21/13 00:30*	*14.28*
1,2-Dichloroethane-d4 (Surr)	*105*		*63 - 129*		*07/18/13 21:16*	*142.86*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*		*07/21/13 00:30*	*14.28*
Toluene-d8 (Surr)	*78*		*74 - 115*		*07/18/13 21:16*	*142.86*
Toluene-d8 (Surr)	*80*		*74 - 115*		*07/21/13 00:30*	*14.28*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP MANSON BRANCH #2
Lab Sample ID: 240-26814-13
Date Collected: 07/10/13 15:02
Matrix: Water
Date Received: 07/12/13 09:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 16:09	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 16:09	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 16:09	1
Bromoform	<1.0		1.0		ug/L			07/19/13 16:09	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 16:09	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 16:09	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 16:09	1
Chloroethane	**1.3**		1.0		ug/L			07/19/13 16:09	1
Chloroform	<1.0		1.0		ug/L			07/19/13 16:09	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 16:09	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 16:09	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 16:09	1
cis-1,2-Dichloroethene	**18**		1.0		ug/L			07/19/13 16:09	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 16:09	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 16:09	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 16:09	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 16:09	1
1,1-Dichloroethane	**3.1**		1.0		ug/L			07/19/13 16:09	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 16:09	1
1,1-Dichloroethene	**1.3**		1.0		ug/L			07/19/13 16:09	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 16:09	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 16:09	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 16:09	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 16:09	1
1,4-Dioxane	<50		50		ug/L			07/19/13 16:09	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 16:09	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 16:09	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 16:09	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 16:09	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 16:09	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 16:09	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
Styrene	<1.0		1.0		ug/L			07/19/13 16:09	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 16:09	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 16:09	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 16:09	1
Toluene	<1.0		1.0		ug/L			07/19/13 16:09	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 16:09	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:09	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP MANSON BRANCH #2
Date Collected: 07/10/13 15:02
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-13
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 16:09	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 16:09	1
Trichloroethene	<1.0		1.0		ug/L			07/19/13 16:09	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 16:09	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 16:09	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 16:09	1
Vinyl chloride	**21**		1.0		ug/L			07/19/13 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*07/19/13 16:09*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 121*		*07/19/13 16:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*63 - 129*		*07/19/13 16:09*	*1*
Toluene-d8 (Surr)	*83*		*74 - 115*		*07/19/13 16:09*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP H
Date Collected: 07/10/13 15:12
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-14
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Bromobenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Bromochloromethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Bromodichloromethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Bromoform	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Bromomethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Carbon tetrachloride	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Chlorobenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Chlorodibromomethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Chloroethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Chloroform	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Chloromethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
2-Chlorotoluene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
4-Chlorotoluene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
cis-1,2-Dichloroethene	**64**		1.7		ug/L			07/21/13 00:52	1.67
1,2-Dibromo-3-Chloropropane	<3.3		3.3		ug/L			07/21/13 00:52	1.67
1,2-Dibromoethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Dibromomethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,2-Dichlorobenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,3-Dichlorobenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,4-Dichlorobenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Dichlorodifluoromethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,1-Dichloroethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,2-Dichloroethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,1-Dichloroethene	**58**		1.7		ug/L			07/21/13 00:52	1.67
1,2-Dichloropropane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,3-Dichloropropane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
2,2-Dichloropropane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,1-Dichloropropene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,4-Dioxane	<84		84		ug/L			07/21/13 00:52	1.67
Ethylbenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Hexachlorobutadiene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Isopropylbenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Methylene Chloride	<1.7		1.7		ug/L			07/21/13 00:52	1.67
m-Xylene & p-Xylene	<3.3		3.3		ug/L			07/21/13 00:52	1.67
Naphthalene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
n-Butylbenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
N-Propylbenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
o-Xylene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
p-Isopropyltoluene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
sec-Butylbenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Styrene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
tert-Butylbenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,1,1,2-Tetrachloroethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,1,2,2-Tetrachloroethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Tetrachloroethene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Toluene	**1.8**		1.7		ug/L			07/21/13 00:52	1.67
trans-1,2-Dichloroethene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,2,3-Trichlorobenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP H
Date Collected: 07/10/13 15:12
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-14
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,1,1-Trichloroethane	**9.6**		1.7		ug/L			07/21/13 00:52	1.67
1,1,2-Trichloroethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Trichloroethene	**490**		17		ug/L			07/20/13 17:48	16.67
Trichlorofluoromethane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,2,3-Trichloropropane	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,2,4-Trimethylbenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
1,3,5-Trimethylbenzene	<1.7		1.7		ug/L			07/21/13 00:52	1.67
Vinyl chloride	<1.7		1.7		ug/L			07/21/13 00:52	1.67

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*07/20/13 17:48*	*16.67*
4-Bromofluorobenzene (Surr)	*80*		*66 - 117*		*07/21/13 00:52*	*1.67*
Dibromofluoromethane (Surr)	*101*		*75 - 121*		*07/20/13 17:48*	*16.67*
Dibromofluoromethane (Surr)	*94*		*75 - 121*		*07/21/13 00:52*	*1.67*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*		*07/20/13 17:48*	*16.67*
1,2-Dichloroethane-d4 (Surr)	*83*		*63 - 129*		*07/21/13 00:52*	*1.67*
Toluene-d8 (Surr)	*79*		*74 - 115*		*07/20/13 17:48*	*16.67*
Toluene-d8 (Surr)	*84*		*74 - 115*		*07/21/13 00:52*	*1.67*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP G
Date Collected: 07/10/13 15:35
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-15
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 16:54	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 16:54	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 16:54	1
Bromoform	<1.0		1.0		ug/L			07/19/13 16:54	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 16:54	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 16:54	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 16:54	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 16:54	1
Chloroform	<1.0		1.0		ug/L			07/19/13 16:54	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 16:54	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 16:54	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 16:54	1
cis-1,2-Dichloroethene	**6.4**		1.0		ug/L			07/19/13 16:54	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 16:54	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 16:54	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/19/13 16:54	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 16:54	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 16:54	1
1,4-Dioxane	<50		50		ug/L			07/19/13 16:54	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 16:54	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 16:54	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 16:54	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 16:54	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 16:54	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 16:54	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
Styrene	<1.0		1.0		ug/L			07/19/13 16:54	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 16:54	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 16:54	1
Toluene	<1.0		1.0		ug/L			07/19/13 16:54	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 16:54	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:54	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP G
Date Collected: 07/10/13 15:35
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-15
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 16:54	1
Trichloroethene	<1.0		1.0		ug/L			07/19/13 16:54	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 16:54	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 16:54	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*66 - 117*		*07/19/13 16:54*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 121*		*07/19/13 16:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*		*07/19/13 16:54*	*1*
Toluene-d8 (Surr)	*76*		*74 - 115*		*07/19/13 16:54*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP #2
Date Collected: 07/10/13 15:40
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-16
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 17:16	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 17:16	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 17:16	1
Bromoform	<1.0		1.0		ug/L			07/19/13 17:16	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 17:16	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 17:16	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 17:16	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 17:16	1
Chloroform	<1.0		1.0		ug/L			07/19/13 17:16	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 17:16	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 17:16	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 17:16	1
cis-1,2-Dichloroethene	**11**		1.0		ug/L			07/19/13 17:16	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 17:16	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 17:16	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,1-Dichloroethene	**1.2**		1.0		ug/L			07/19/13 17:16	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 17:16	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 17:16	1
1,4-Dioxane	<50		50		ug/L			07/19/13 17:16	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 17:16	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 17:16	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 17:16	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 17:16	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 17:16	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 17:16	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
Styrene	<1.0		1.0		ug/L			07/19/13 17:16	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 17:16	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 17:16	1
Toluene	<1.0		1.0		ug/L			07/19/13 17:16	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 17:16	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:16	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP #2
Date Collected: 07/10/13 15:40
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-16
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 17:16	1
Trichloroethene	**4.5**		1.0		ug/L			07/19/13 17:16	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 17:16	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 17:16	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*07/19/13 17:16*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 121*		*07/19/13 17:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*63 - 129*		*07/19/13 17:16*	*1*
Toluene-d8 (Surr)	*78*		*74 - 115*		*07/19/13 17:16*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP B
Date Collected: 07/10/13 15:50
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-17
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 17:39	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 17:39	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 17:39	1
Bromoform	<1.0		1.0		ug/L			07/19/13 17:39	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 17:39	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 17:39	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 17:39	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 17:39	1
Chloroform	<1.0		1.0		ug/L			07/19/13 17:39	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 17:39	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 17:39	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 17:39	1
cis-1,2-Dichloroethene	**5.2**		1.0		ug/L			07/19/13 17:39	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 17:39	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 17:39	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/19/13 17:39	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 17:39	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 17:39	1
1,4-Dioxane	<50		50		ug/L			07/19/13 17:39	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 17:39	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 17:39	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 17:39	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 17:39	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 17:39	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 17:39	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
Styrene	<1.0		1.0		ug/L			07/19/13 17:39	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 17:39	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 17:39	1
Toluene	**1.5**		1.0		ug/L			07/19/13 17:39	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 17:39	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:39	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP B
Date Collected: 07/10/13 15:50
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-17
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 17:39	1
Trichloroethene	**1.2**		1.0		ug/L			07/19/13 17:39	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 17:39	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 17:39	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*66 - 117*		*07/19/13 17:39*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 121*		*07/19/13 17:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*63 - 129*		*07/19/13 17:39*	*1*
Toluene-d8 (Surr)	*82*		*74 - 115*		*07/19/13 17:39*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP L
Date Collected: 07/10/13 16:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-18
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 18:01	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 18:01	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 18:01	1
Bromoform	<1.0		1.0		ug/L			07/19/13 18:01	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 18:01	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 18:01	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 18:01	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 18:01	1
Chloroform	<1.0		1.0		ug/L			07/19/13 18:01	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 18:01	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 18:01	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 18:01	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 18:01	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 18:01	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 18:01	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/19/13 18:01	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 18:01	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 18:01	1
1,4-Dioxane	<50		50		ug/L			07/19/13 18:01	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 18:01	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 18:01	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 18:01	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 18:01	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 18:01	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 18:01	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
Styrene	<1.0		1.0		ug/L			07/19/13 18:01	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 18:01	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 18:01	1
Toluene	<1.0		1.0		ug/L			07/19/13 18:01	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 18:01	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:01	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP L
Date Collected: 07/10/13 16:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-18
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 18:01	1
Trichloroethene	<1.0		1.0		ug/L			07/19/13 18:01	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 18:01	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 18:01	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*07/19/13 18:01*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 121*		*07/19/13 18:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*		*07/19/13 18:01*	*1*
Toluene-d8 (Surr)	*78*		*74 - 115*		*07/19/13 18:01*	*1*

Client Sample ID: SEEP I
Date Collected: 07/10/13 16:05
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-19
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 18:23	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 18:23	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 18:23	1
Bromoform	<1.0		1.0		ug/L			07/19/13 18:23	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 18:23	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 18:23	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 18:23	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 18:23	1
Chloroform	<1.0		1.0		ug/L			07/19/13 18:23	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 18:23	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 18:23	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 18:23	1
cis-1,2-Dichloroethene	**1.3**		1.0		ug/L			07/19/13 18:23	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 18:23	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 18:23	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/19/13 18:23	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 18:23	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 18:23	1
1,4-Dioxane	<50		50		ug/L			07/19/13 18:23	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 18:23	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 18:23	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 18:23	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 18:23	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 18:23	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 18:23	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
Styrene	<1.0		1.0		ug/L			07/19/13 18:23	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 18:23	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 18:23	1
Toluene	<1.0		1.0		ug/L			07/19/13 18:23	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 18:23	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:23	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: SEEP I
Date Collected: 07/10/13 16:05
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-19
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 18:23	1
Trichloroethene	**1.9**		1.0		ug/L			07/19/13 18:23	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 18:23	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 18:23	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*66 - 117*		*07/19/13 18:23*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 121*		*07/19/13 18:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*		*07/19/13 18:23*	*1*
Toluene-d8 (Surr)	*78*		*74 - 115*		*07/19/13 18:23*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MB #16
Date Collected: 07/10/13 16:15
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-20
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 18:45	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 18:45	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 18:45	1
Bromoform	<1.0		1.0		ug/L			07/19/13 18:45	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 18:45	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 18:45	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 18:45	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 18:45	1
Chloroform	<1.0		1.0		ug/L			07/19/13 18:45	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 18:45	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 18:45	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 18:45	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 18:45	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 18:45	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 18:45	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/19/13 18:45	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 18:45	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 18:45	1
1,4-Dioxane	<50		50		ug/L			07/19/13 18:45	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 18:45	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 18:45	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 18:45	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 18:45	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 18:45	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 18:45	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
Styrene	<1.0		1.0		ug/L			07/19/13 18:45	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 18:45	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 18:45	1
Toluene	<1.0		1.0		ug/L			07/19/13 18:45	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 18:45	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:45	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MB #16
Date Collected: 07/10/13 16:15
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-20
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 18:45	1
Trichloroethene	<1.0		1.0		ug/L			07/19/13 18:45	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 18:45	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 18:45	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*07/19/13 18:45*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 121*		*07/19/13 18:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*63 - 129*		*07/19/13 18:45*	*1*
Toluene-d8 (Surr)	*79*		*74 - 115*		*07/19/13 18:45*	*1*

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MB #15
Date Collected: 07/10/13 16:30
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-21
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 19:08	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 19:08	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 19:08	1
Bromoform	<1.0		1.0		ug/L			07/19/13 19:08	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 19:08	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 19:08	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 19:08	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 19:08	1
Chloroform	<1.0		1.0		ug/L			07/19/13 19:08	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 19:08	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 19:08	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 19:08	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 19:08	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 19:08	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 19:08	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/19/13 19:08	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 19:08	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 19:08	1
1,4-Dioxane	<50		50		ug/L			07/19/13 19:08	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 19:08	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 19:08	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 19:08	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 19:08	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 19:08	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 19:08	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
Styrene	<1.0		1.0		ug/L			07/19/13 19:08	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 19:08	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 19:08	1
Toluene	<1.0		1.0		ug/L			07/19/13 19:08	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 19:08	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:08	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MB #15
Date Collected: 07/10/13 16:30
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-21
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 19:08	1
Trichloroethene	<1.0		1.0		ug/L			07/19/13 19:08	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 19:08	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 19:08	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*07/19/13 19:08*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 121*		*07/19/13 19:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*07/19/13 19:08*	*1*
Toluene-d8 (Surr)	*79*		*74 - 115*		*07/19/13 19:08*	*1*

Client Sample ID: DUP-2
Date Collected: 07/10/13 12:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-22
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Bromobenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Bromochloromethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Bromodichloromethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Bromoform	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Bromomethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Carbon tetrachloride	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Chlorobenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Chlorodibromomethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Chloroethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Chloroform	**1.9**		1.4		ug/L			07/21/13 01:14	1.43
Chloromethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
2-Chlorotoluene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
4-Chlorotoluene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
cis-1,2-Dichloroethene	**62**		14		ug/L			07/19/13 19:30	14.28
1,2-Dibromo-3-Chloropropane	<2.9		2.9		ug/L			07/21/13 01:14	1.43
1,2-Dibromoethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Dibromomethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,2-Dichlorobenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,3-Dichlorobenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,4-Dichlorobenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Dichlorodifluoromethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,1-Dichloroethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,2-Dichloroethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,1-Dichloroethene	**62**		14		ug/L			07/19/13 19:30	14.28
1,2-Dichloropropane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,3-Dichloropropane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
2,2-Dichloropropane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,1-Dichloropropene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,4-Dioxane	<72		72		ug/L			07/21/13 01:14	1.43
Ethylbenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Hexachlorobutadiene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Isopropylbenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Methylene Chloride	<1.4		1.4		ug/L			07/21/13 01:14	1.43
m-Xylene & p-Xylene	<2.9		2.9		ug/L			07/21/13 01:14	1.43
Naphthalene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
n-Butylbenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
N-Propylbenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
o-Xylene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
p-Isopropyltoluene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
sec-Butylbenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Styrene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
tert-Butylbenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,1,1,2-Tetrachloroethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,1,2,2-Tetrachloroethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Tetrachloroethene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Toluene	**1.4**		1.4		ug/L			07/21/13 01:14	1.43
trans-1,2-Dichloroethene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,2,3-Trichlorobenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: DUP-2
Date Collected: 07/10/13 12:00
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-22
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,1,1-Trichloroethane	**13**		1.4		ug/L			07/21/13 01:14	1.43
1,1,2-Trichloroethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Trichloroethene	**520**		14		ug/L			07/19/13 19:30	14.28
Trichlorofluoromethane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,2,3-Trichloropropane	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,2,4-Trimethylbenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
1,3,5-Trimethylbenzene	<1.4		1.4		ug/L			07/21/13 01:14	1.43
Vinyl chloride	<1.4		1.4		ug/L			07/21/13 01:14	1.43

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*66 - 117*		*07/19/13 19:30*	*14.28*
4-Bromofluorobenzene (Surr)	*79*		*66 - 117*		*07/21/13 01:14*	*1.43*
Dibromofluoromethane (Surr)	*107*		*75 - 121*		*07/19/13 19:30*	*14.28*
Dibromofluoromethane (Surr)	*101*		*75 - 121*		*07/21/13 01:14*	*1.43*
1,2-Dichloroethane-d4 (Surr)	*105*		*63 - 129*		*07/19/13 19:30*	*14.28*
1,2-Dichloroethane-d4 (Surr)	*101*		*63 - 129*		*07/21/13 01:14*	*1.43*
Toluene-d8 (Surr)	*78*		*74 - 115*		*07/19/13 19:30*	*14.28*
Toluene-d8 (Surr)	*81*		*74 - 115*		*07/21/13 01:14*	*1.43*

Client Sample ID: MB #3
Date Collected: 07/10/13 16:40
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-23
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 19:52	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 19:52	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 19:52	1
Bromoform	<1.0		1.0		ug/L			07/19/13 19:52	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 19:52	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 19:52	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 19:52	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 19:52	1
Chloroform	<1.0		1.0		ug/L			07/19/13 19:52	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 19:52	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 19:52	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 19:52	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 19:52	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 19:52	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 19:52	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/19/13 19:52	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 19:52	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 19:52	1
1,4-Dioxane	<50		50		ug/L			07/19/13 19:52	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 19:52	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 19:52	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 19:52	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 19:52	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 19:52	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 19:52	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
Styrene	<1.0		1.0		ug/L			07/19/13 19:52	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 19:52	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 19:52	1
Toluene	<1.0		1.0		ug/L			07/19/13 19:52	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 19:52	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:52	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MB #3
Date Collected: 07/10/13 16:40
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-23
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 19:52	1
Trichloroethene	<1.0		1.0		ug/L			07/19/13 19:52	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 19:52	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 19:52	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*66 - 117*		*07/19/13 19:52*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 121*		*07/19/13 19:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*63 - 129*		*07/19/13 19:52*	*1*
Toluene-d8 (Surr)	*77*		*74 - 115*		*07/19/13 19:52*	*1*

Client Sample ID: MB #5
Date Collected: 07/10/13 16:55
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-24
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 20:15	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 20:15	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 20:15	1
Bromoform	<1.0		1.0		ug/L			07/19/13 20:15	1
Bromomethane	<1.0		1.0		ug/L			07/19/13 20:15	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 20:15	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 20:15	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 20:15	1
Chloroform	<1.0		1.0		ug/L			07/19/13 20:15	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 20:15	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 20:15	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 20:15	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 20:15	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 20:15	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 20:15	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/19/13 20:15	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 20:15	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 20:15	1
1,4-Dioxane	<50		50		ug/L			07/19/13 20:15	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 20:15	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 20:15	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 20:15	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 20:15	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 20:15	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 20:15	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
Styrene	<1.0		1.0		ug/L			07/19/13 20:15	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 20:15	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 20:15	1
Toluene	<1.0		1.0		ug/L			07/19/13 20:15	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 20:15	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 20:15	1

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MB #5
Date Collected: 07/10/13 16:55
Date Received: 07/12/13 09:15

Lab Sample ID: 240-26814-24
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 20:15	1
Trichloroethene	<1.0		1.0		ug/L			07/19/13 20:15	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 20:15	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 20:15	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*66 - 117*		*07/19/13 20:15*	*1*
Dibromofluoromethane (Surr)	*116*		*75 - 121*		*07/19/13 20:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*115*		*63 - 129*		*07/19/13 20:15*	*1*
Toluene-d8 (Surr)	*87*		*74 - 115*		*07/19/13 20:15*	*1*

Surrogate Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	12DCE	TOL
Lab Sample ID	Client Sample ID	(66-117)	(75-121)	(63-129)	(74-115)
240-26814-2	MW-5	82	108	107	84
240-26814-2	MW-5	80	99	96	81
240-26814-3	MW-3	82	101	105	80
240-26814-4	MW-22	80	105	107	80
240-26814-5	MW-20	83	110	106	83
240-26814-5	MW-20	80	100	96	79
240-26814-6	MW-25	76	102	105	78
240-26814-6	MW-25	78	98	96	79
240-26814-7	MW-27	80	103	102	81
240-26814-8	MW-28	79	102	99	79
240-26814-9	MW-10	77	100	100	76
240-26814-10	MW-14	78	94	92	78
240-26814-10	MW-14	81	107	103	84
240-26814-10 MS	MW-14	100	102	102	88
240-26814-10 MSD	MW-14	105	104	100	91
240-26814-11	DUP-1	83	101	103	81
240-26814-11	DUP-1	76	103	100	79
240-26814-12	MW-19	76	102	105	78
240-26814-12	MW-19	78	104	103	80
240-26814-13	SEEP MANSON BRANCH #2	82	101	101	83
240-26814-14	SEEP H	80	94	83	84
240-26814-14	SEEP H	79	101	100	79
240-26814-15	SEEP G	75	104	100	76
240-26814-16	SEEP #2	79	103	101	78
240-26814-17	SEEP B	83	108	108	82
240-26814-18	SEEP L	79	100	103	78
240-26814-19	SEEP I	78	100	103	78
240-26814-20	MB #16	79	106	108	79
240-26814-21	MB #15	79	105	107	79
240-26814-22	DUP-2	78	107	105	78
240-26814-22	DUP-2	79	101	101	81
240-26814-23	MB #3	77	104	104	77
240-26814-24	MB #5	87	116	115	87
LCS 240-94118/4	Lab Control Sample	92	97	93	93
LCS 240-94286/7	Lab Control Sample	96	99	96	85
LCS 240-94349/7	Lab Control Sample	102	96	94	88
MB 240-94118/6	Method Blank	81	95	97	79
MB 240-94286/6	Method Blank	83	107	107	84
MB 240-94349/6	Method Blank	82	105	104	81

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Surrogate Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: WQ **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	12DCE	TOL
Lab Sample ID	Client Sample ID	(66-117)	(75-121)	(63-129)	(74-115)
240-26814-1	TB-070913	82	106	107	82

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		12DCE
Lab Sample ID	Client Sample ID	(74-120)
240-26814-2	MW-5	104
240-26814-5	MW-20	105
240-26814-6	MW-25	107
240-26814-7	MW-27	99
240-26814-8	MW-28	105
240-26814-10	MW-14	102
240-26814-10 MS	MW-14	105
240-26814-10 MSD	MW-14	104
240-26814-11	DUP-1	105
240-26814-12	MW-19	109
LCS 240-94465/18	Lab Control Sample	103
MB 240-94465/19	Method Blank	110

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-94118/6
Matrix: Water
Analysis Batch: 94118

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/18/13 14:54	1
Bromobenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
Bromochloromethane	<1.0		1.0		ug/L			07/18/13 14:54	1
Bromodichloromethane	<1.0		1.0		ug/L			07/18/13 14:54	1
Bromoform	<1.0		1.0		ug/L			07/18/13 14:54	1
Bromomethane	<1.0		1.0		ug/L			07/18/13 14:54	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/18/13 14:54	1
Chlorobenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/18/13 14:54	1
Chloroethane	<1.0		1.0		ug/L			07/18/13 14:54	1
Chloroform	<1.0		1.0		ug/L			07/18/13 14:54	1
Chloromethane	<1.0		1.0		ug/L			07/18/13 14:54	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 14:54	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/18/13 14:54	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 14:54	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/18/13 14:54	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/18/13 14:54	1
Dibromomethane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/18/13 14:54	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/18/13 14:54	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/18/13 14:54	1
1,4-Dioxane	<50		50		ug/L			07/18/13 14:54	1
Ethylbenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/18/13 14:54	1
Isopropylbenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
Methylene Chloride	<1.0		1.0		ug/L			07/18/13 14:54	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/18/13 14:54	1
Naphthalene	<1.0		1.0		ug/L			07/18/13 14:54	1
n-Butylbenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
N-Propylbenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
o-Xylene	<1.0		1.0		ug/L			07/18/13 14:54	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/18/13 14:54	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
Styrene	<1.0		1.0		ug/L			07/18/13 14:54	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/18/13 14:54	1
Tetrachloroethene	<1.0		1.0		ug/L			07/18/13 14:54	1
Toluene	<1.0		1.0		ug/L			07/18/13 14:54	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/18/13 14:54	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-94118/6
Matrix: Water
Analysis Batch: 94118

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/18/13 14:54	1
Trichloroethene	<1.0		1.0		ug/L			07/18/13 14:54	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/18/13 14:54	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/18/13 14:54	1
Vinyl chloride	<1.0		1.0		ug/L			07/18/13 14:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*66 - 117*		*07/18/13 14:54*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 121*		*07/18/13 14:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*63 - 129*		*07/18/13 14:54*	*1*
Toluene-d8 (Surr)	*79*		*74 - 115*		*07/18/13 14:54*	*1*

Lab Sample ID: LCS 240-94118/4
Matrix: Water
Analysis Batch: 94118

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.0		ug/L		100	83 - 112
Bromobenzene	10.0	10.2		ug/L		102	76 - 115
Bromochloromethane	10.0	10.2		ug/L		102	77 - 120
Bromodichloromethane	10.0	10.7		ug/L		107	72 - 121
Bromoform	10.0	10.2		ug/L		102	40 - 131
Bromomethane	10.0	9.28		ug/L		93	11 - 185
Carbon tetrachloride	10.0	10.9		ug/L		109	66 - 128
Chlorobenzene	10.0	9.84		ug/L		98	85 - 110
Chlorodibromomethane	10.0	10.5		ug/L		105	64 - 119
Chloroethane	10.0	9.25		ug/L		92	25 - 153
Chloroform	10.0	10.7		ug/L		107	79 - 117
Chloromethane	10.0	8.52		ug/L		85	44 - 126
2-Chlorotoluene	10.0	9.25		ug/L		93	76 - 116
4-Chlorotoluene	10.0	9.70		ug/L		97	77 - 115
cis-1,2-Dichloroethene	10.0	10.4		ug/L		104	80 - 113
1,2-Dibromo-3-Chloropropane	10.0	8.07		ug/L		81	42 - 136
1,2-Dibromoethane	10.0	10.2		ug/L		102	79 - 113
Dibromomethane	10.0	10.7		ug/L		107	81 - 120
1,2-Dichlorobenzene	10.0	8.42		ug/L		84	81 - 110
1,3-Dichlorobenzene	10.0	8.84		ug/L		88	80 - 110
1,4-Dichlorobenzene	10.0	8.78		ug/L		88	82 - 110
Dichlorodifluoromethane	10.0	8.51		ug/L		85	19 - 129
1,1-Dichloroethane	10.0	10.2		ug/L		102	82 - 115
1,2-Dichloroethane	10.0	10.9		ug/L		109	71 - 127
1,1-Dichloroethene	10.0	10.3		ug/L		103	78 - 131
1,2-Dichloropropane	10.0	9.80		ug/L		98	81 - 115

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-94118/4
Matrix: Water
Analysis Batch: 94118

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	10.0	9.91		ug/L		99	79 - 116
2,2-Dichloropropane	10.0	10.2		ug/L		102	50 - 129
1,1-Dichloropropene	10.0	10.2		ug/L		102	83 - 114
Ethylbenzene	10.0	9.73		ug/L		97	83 - 112
Hexachlorobutadiene	10.0	5.74		ug/L		57	36 - 134
Isopropylbenzene	10.0	9.08		ug/L		91	75 - 114
Methylene Chloride	10.0	10.5		ug/L		105	66 - 131
m-Xylene & p-Xylene	20.0	19.9		ug/L		100	83 - 113
Naphthalene	10.0	4.86		ug/L		49	32 - 141
n-Butylbenzene	10.0	7.59		ug/L		76	66 - 125
N-Propylbenzene	10.0	9.86		ug/L		99	74 - 121
o-Xylene	10.0	9.62		ug/L		96	83 - 113
p-Isopropyltoluene	10.0	8.69		ug/L		87	74 - 120
sec-Butylbenzene	10.0	8.17		ug/L		82	70 - 117
Styrene	10.0	9.87		ug/L		99	79 - 114
tert-Butylbenzene	10.0	8.53		ug/L		85	71 - 115
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	72 - 116
1,1,2,2-Tetrachloroethane	10.0	8.93		ug/L		89	68 - 118
Tetrachloroethene	10.0	10.5		ug/L		105	79 - 114
Toluene	10.0	10.1		ug/L		101	84 - 111
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	83 - 117
1,2,3-Trichlorobenzene	10.0	5.33	*	ug/L		53	54 - 126
1,2,4-Trichlorobenzene	10.0	5.73		ug/L		57	48 - 135
1,1,1-Trichloroethane	10.0	10.8		ug/L		108	74 - 118
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	80 - 112
Trichloroethene	10.0	10.2		ug/L		102	76 - 117
Trichlorofluoromethane	10.0	9.99		ug/L		100	49 - 157
1,2,3-Trichloropropane	10.0	10.1		ug/L		101	73 - 129
1,2,4-Trimethylbenzene	10.0	9.09		ug/L		91	76 - 120
1,3,5-Trimethylbenzene	10.0	9.18		ug/L		92	72 - 118
Vinyl chloride	10.0	8.97		ug/L		90	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*66 - 117*
Dibromofluoromethane (Surr)	*97*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*93*		*63 - 129*
Toluene-d8 (Surr)	*93*		*74 - 115*

Lab Sample ID: MB 240-94286/6
Matrix: Water
Analysis Batch: 94286

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/19/13 14:19	1
Bromobenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
Bromochloromethane	<1.0		1.0		ug/L			07/19/13 14:19	1
Bromodichloromethane	<1.0		1.0		ug/L			07/19/13 14:19	1
Bromoform	<1.0		1.0		ug/L			07/19/13 14:19	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-94286/6
Matrix: Water
Analysis Batch: 94286

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	<1.0		1.0		ug/L			07/19/13 14:19	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/19/13 14:19	1
Chlorobenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/19/13 14:19	1
Chloroethane	<1.0		1.0		ug/L			07/19/13 14:19	1
Chloroform	<1.0		1.0		ug/L			07/19/13 14:19	1
Chloromethane	<1.0		1.0		ug/L			07/19/13 14:19	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 14:19	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/19/13 14:19	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/19/13 14:19	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/19/13 14:19	1
Dibromomethane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/19/13 14:19	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,4-Dioxane	<50		50		ug/L			07/19/13 14:19	1
Ethylbenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/19/13 14:19	1
Isopropylbenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
Methylene Chloride	<1.0		1.0		ug/L			07/19/13 14:19	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/19/13 14:19	1
Naphthalene	<1.0		1.0		ug/L			07/19/13 14:19	1
n-Butylbenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
N-Propylbenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
o-Xylene	<1.0		1.0		ug/L			07/19/13 14:19	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/19/13 14:19	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
Styrene	<1.0		1.0		ug/L			07/19/13 14:19	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/19/13 14:19	1
Tetrachloroethene	<1.0		1.0		ug/L			07/19/13 14:19	1
Toluene	<1.0		1.0		ug/L			07/19/13 14:19	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/19/13 14:19	1
Trichloroethene	<1.0		1.0		ug/L			07/19/13 14:19	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-94286/6
Matrix: Water
Analysis Batch: 94286

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/19/13 14:19	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/19/13 14:19	1
Vinyl chloride	<1.0		1.0		ug/L			07/19/13 14:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*66 - 117*		*07/19/13 14:19*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 121*		*07/19/13 14:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*07/19/13 14:19*	*1*
Toluene-d8 (Surr)	*84*		*74 - 115*		*07/19/13 14:19*	*1*

Lab Sample ID: LCS 240-94286/7
Matrix: Water
Analysis Batch: 94286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.1		ug/L		101	83 - 112
Bromobenzene	10.0	9.03		ug/L		90	76 - 115
Bromochloromethane	10.0	11.2		ug/L		112	77 - 120
Bromodichloromethane	10.0	10.7		ug/L		107	72 - 121
Bromoform	10.0	10.0		ug/L		100	40 - 131
Bromomethane	10.0	9.49		ug/L		95	11 - 185
Carbon tetrachloride	10.0	11.1		ug/L		111	66 - 128
Chlorobenzene	10.0	9.39		ug/L		94	85 - 110
Chlorodibromomethane	10.0	9.46		ug/L		95	64 - 119
Chloroethane	10.0	7.96		ug/L		80	25 - 153
Chloroform	10.0	10.9		ug/L		109	79 - 117
Chloromethane	10.0	9.24		ug/L		92	44 - 126
2-Chlorotoluene	10.0	9.08		ug/L		91	76 - 116
4-Chlorotoluene	10.0	9.23		ug/L		92	77 - 115
cis-1,2-Dichloroethene	10.0	10.4		ug/L		104	80 - 113
1,2-Dibromo-3-Chloropropane	10.0	7.98		ug/L		80	42 - 136
1,2-Dibromoethane	10.0	9.66		ug/L		97	79 - 113
Dibromomethane	10.0	11.0		ug/L		110	81 - 120
1,2-Dichlorobenzene	10.0	8.78		ug/L		88	81 - 110
1,3-Dichlorobenzene	10.0	8.89		ug/L		89	80 - 110
1,4-Dichlorobenzene	10.0	8.76		ug/L		88	82 - 110
Dichlorodifluoromethane	10.0	11.4		ug/L		114	19 - 129
1,1-Dichloroethane	10.0	10.5		ug/L		105	82 - 115
1,2-Dichloroethane	10.0	11.1		ug/L		111	71 - 127
1,1-Dichloroethene	10.0	10.4		ug/L		104	78 - 131
1,2-Dichloropropane	10.0	9.92		ug/L		99	81 - 115
1,3-Dichloropropane	10.0	9.23		ug/L		92	79 - 116
2,2-Dichloropropane	10.0	10.2		ug/L		102	50 - 129
1,1-Dichloropropene	10.0	10.4		ug/L		104	83 - 114
Ethylbenzene	10.0	9.59		ug/L		96	83 - 112
Hexachlorobutadiene	10.0	7.03		ug/L		70	36 - 134

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-94286/7
Matrix: Water
Analysis Batch: 94286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	10.0	9.87		ug/L		99	75 - 114
Methylene Chloride	10.0	11.2		ug/L		112	66 - 131
m-Xylene & p-Xylene	20.0	19.7		ug/L		98	83 - 113
Naphthalene	10.0	5.11		ug/L		51	32 - 141
n-Butylbenzene	10.0	8.62		ug/L		86	66 - 125
N-Propylbenzene	10.0	9.34		ug/L		93	74 - 121
o-Xylene	10.0	9.61		ug/L		96	83 - 113
p-Isopropyltoluene	10.0	9.62		ug/L		96	74 - 120
sec-Butylbenzene	10.0	8.78		ug/L		88	70 - 117
Styrene	10.0	10.2		ug/L		102	79 - 114
tert-Butylbenzene	10.0	8.78		ug/L		88	71 - 115
1,1,1,2-Tetrachloroethane	10.0	9.98		ug/L		100	72 - 116
1,1,2,2-Tetrachloroethane	10.0	8.16		ug/L		82	68 - 118
Tetrachloroethene	10.0	10.0		ug/L		100	79 - 114
Toluene	10.0	9.35		ug/L		94	84 - 111
trans-1,2-Dichloroethene	10.0	10.4		ug/L		104	83 - 117
1,2,3-Trichlorobenzene	10.0	5.52		ug/L		55	54 - 126
1,2,4-Trichlorobenzene	10.0	6.24		ug/L		62	48 - 135
1,1,1-Trichloroethane	10.0	10.8		ug/L		108	74 - 118
1,1,2-Trichloroethane	10.0	9.58		ug/L		96	80 - 112
Trichloroethene	10.0	10.7		ug/L		107	76 - 117
Trichlorofluoromethane	10.0	10.4		ug/L		104	49 - 157
1,2,3-Trichloropropane	10.0	8.60		ug/L		86	73 - 129
1,2,4-Trimethylbenzene	10.0	9.39		ug/L		94	76 - 120
1,3,5-Trimethylbenzene	10.0	9.27		ug/L		93	72 - 118
Vinyl chloride	10.0	9.67		ug/L		97	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*66 - 117*
Dibromofluoromethane (Surr)	*99*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*96*		*63 - 129*
Toluene-d8 (Surr)	*85*		*74 - 115*

Lab Sample ID: 240-26814-10 MS
Matrix: Water
Analysis Batch: 94286

Client Sample ID: MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<100		1000	1000		ug/L		100	72 - 121
Bromobenzene	<100		1000	853		ug/L		85	71 - 116
Bromochloromethane	<100		1000	1070		ug/L		107	73 - 121
Bromodichloromethane	<100		1000	1100		ug/L		110	67 - 120
Bromoform	<100		1000	978		ug/L		98	32 - 128
Bromomethane	<100		1000	1090		ug/L		109	10 - 186
Carbon tetrachloride	<100		1000	1140		ug/L		114	59 - 129
Chlorobenzene	<100		1000	925		ug/L		92	80 - 110
Chlorodibromomethane	<100		1000	954		ug/L		95	56 - 118
Chloroethane	<100		1000	1140		ug/L		114	21 - 165

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-26814-10 MS
Matrix: Water
Analysis Batch: 94286

Client Sample ID: MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	<100		1000	1080		ug/L		108	76 - 118
Chloromethane	<100		1000	887		ug/L		89	33 - 132
2-Chlorotoluene	<100		1000	855		ug/L		85	69 - 117
4-Chlorotoluene	<100		1000	871		ug/L		87	71 - 116
cis-1,2-Dichloroethene	320		1000	1360		ug/L		104	70 - 120
1,2-Dibromo-3-Chloropropane	<200		1000	667		ug/L		67	32 - 139
1,2-Dibromoethane	<100		1000	950		ug/L		95	74 - 113
Dibromomethane	<100		1000	1110		ug/L		111	77 - 121
1,2-Dichlorobenzene	<100		1000	840		ug/L		81	75 - 111
1,3-Dichlorobenzene	<100		1000	837		ug/L		81	73 - 110
1,4-Dichlorobenzene	<100		1000	837		ug/L		82	75 - 110
Dichlorodifluoromethane	<100		1000	1010		ug/L		101	17 - 128
1,1-Dichloroethane	<100		1000	1030		ug/L		103	79 - 116
1,2-Dichloroethane	<100		1000	1110		ug/L		111	68 - 129
1,1-Dichloroethene	<100		1000	1070		ug/L		101	74 - 135
1,2-Dichloropropane	<100		1000	975		ug/L		98	78 - 115
1,3-Dichloropropane	<100		1000	894		ug/L		89	74 - 118
2,2-Dichloropropane	<100		1000	1030		ug/L		103	38 - 127
1,1-Dichloropropene	<100		1000	1020		ug/L		102	80 - 114
Ethylbenzene	<100		1000	960		ug/L		96	75 - 116
Hexachlorobutadiene	120		1000	665		ug/L		55	27 - 132
Isopropylbenzene	<100		1000	976		ug/L		98	68 - 116
Methylene Chloride	<100		1000	1060		ug/L		99	63 - 128
m-Xylene & p-Xylene	<200		2000	1970		ug/L		99	75 - 117
Naphthalene	<100		1000	386		ug/L		30	15 - 158
n-Butylbenzene	<100		1000	780		ug/L		76	56 - 127
N-Propylbenzene	<100		1000	888		ug/L		89	64 - 124
o-Xylene	<100		1000	965		ug/L		97	76 - 116
p-Isopropyltoluene	<100		1000	895		ug/L		90	64 - 122
sec-Butylbenzene	<100		1000	816		ug/L		82	60 - 119
Styrene	<100		1000	1020		ug/L		102	71 - 117
tert-Butylbenzene	<100		1000	825		ug/L		83	61 - 119
1,1,1,2-Tetrachloroethane	<100		1000	1050		ug/L		105	64 - 118
1,1,2,2-Tetrachloroethane	<100		1000	717		ug/L		72	63 - 122
Tetrachloroethene	<100		1000	1030		ug/L		103	70 - 117
Toluene	<100		1000	944		ug/L		94	78 - 114
trans-1,2-Dichloroethene	<100		1000	1020		ug/L		102	80 - 119
1,2,3-Trichlorobenzene	100		1000	452	F	ug/L		35	45 - 129
1,2,4-Trichlorobenzene	130		1000	555		ug/L		42	38 - 138
1,1,1-Trichloroethane	<100		1000	1130		ug/L		113	68 - 121
1,1,2-Trichloroethane	<100		1000	938		ug/L		94	75 - 115
Trichloroethene	2900		1000	4040	E	ug/L		110	66 - 120
Trichlorofluoromethane	<100		1000	1130		ug/L		113	46 - 157
1,2,3-Trichloropropane	<100		1000	785		ug/L		78	67 - 132
1,2,4-Trimethylbenzene	<100		1000	887		ug/L		89	67 - 124
1,3,5-Trimethylbenzene	<100		1000	879		ug/L		88	63 - 121
Vinyl chloride	<100		1000	959		ug/L		96	49 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-26814-10 MS
Matrix: Water
Analysis Batch: 94286

Client Sample ID: MW-14
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*100*		*66 - 117*
Dibromofluoromethane (Surr)	*102*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*102*		*63 - 129*
Toluene-d8 (Surr)	*88*		*74 - 115*

Lab Sample ID: 240-26814-10 MSD
Matrix: Water
Analysis Batch: 94286

Client Sample ID: MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<100		1000	1020		ug/L		102	72 - 121	2	30
Bromobenzene	<100		1000	922		ug/L		92	71 - 116	8	30
Bromochloromethane	<100		1000	1080		ug/L		108	73 - 121	2	30
Bromodichloromethane	<100		1000	1150		ug/L		115	67 - 120	4	30
Bromoform	<100		1000	957		ug/L		96	32 - 128	2	30
Bromomethane	<100		1000	1150		ug/L		115	10 - 186	5	30
Carbon tetrachloride	<100		1000	1150		ug/L		115	59 - 129	1	30
Chlorobenzene	<100		1000	965		ug/L		97	80 - 110	4	30
Chlorodibromomethane	<100		1000	1010		ug/L		101	56 - 118	6	30
Chloroethane	<100		1000	1220		ug/L		122	21 - 165	7	30
Chloroform	<100		1000	1080		ug/L		108	76 - 118	0	30
Chloromethane	<100		1000	949		ug/L		95	33 - 132	7	30
2-Chlorotoluene	<100		1000	912		ug/L		91	69 - 117	6	30
4-Chlorotoluene	<100		1000	919		ug/L		92	71 - 116	5	30
cis-1,2-Dichloroethene	320		1000	1420		ug/L		110	70 - 120	4	30
1,2-Dibromo-3-Chloropropane	<200		1000	794		ug/L		79	32 - 139	17	30
1,2-Dibromoethane	<100		1000	984		ug/L		98	74 - 113	3	30
Dibromomethane	<100		1000	1130		ug/L		113	77 - 121	1	30
1,2-Dichlorobenzene	<100		1000	900		ug/L		87	75 - 111	7	30
1,3-Dichlorobenzene	<100		1000	917		ug/L		89	73 - 110	9	30
1,4-Dichlorobenzene	<100		1000	874		ug/L		85	75 - 110	4	30
Dichlorodifluoromethane	<100		1000	1030		ug/L		103	17 - 128	2	30
1,1-Dichloroethane	<100		1000	1070		ug/L		107	79 - 116	4	30
1,2-Dichloroethane	<100		1000	1120		ug/L		112	68 - 129	1	30
1,1-Dichloroethene	<100		1000	1080		ug/L		103	74 - 135	1	30
1,2-Dichloropropane	<100		1000	1010		ug/L		101	78 - 115	3	30
1,3-Dichloropropane	<100		1000	921		ug/L		92	74 - 118	3	30
2,2-Dichloropropane	<100		1000	1040		ug/L		104	38 - 127	1	30
1,1-Dichloropropene	<100		1000	1040		ug/L		104	80 - 114	2	30
Ethylbenzene	<100		1000	979		ug/L		98	75 - 116	2	30
Hexachlorobutadiene	120		1000	740		ug/L		62	27 - 132	11	30
Isopropylbenzene	<100		1000	990		ug/L		99	68 - 116	1	30
Methylene Chloride	<100		1000	1060		ug/L		99	63 - 128	0	30
m-Xylene & p-Xylene	<200		2000	2050		ug/L		103	75 - 117	4	30
Naphthalene	<100		1000	552	F	ug/L		47	15 - 158	35	30
n-Butylbenzene	<100		1000	833		ug/L		81	56 - 127	7	30
N-Propylbenzene	<100		1000	897		ug/L		90	64 - 124	1	30
o-Xylene	<100		1000	996		ug/L		100	76 - 116	3	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-26814-10 MSD
Matrix: Water
Analysis Batch: 94286

Client Sample ID: MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
p-Isopropyltoluene	<100		1000	931		ug/L		93	64 - 122	4	30
sec-Butylbenzene	<100		1000	838		ug/L		84	60 - 119	3	30
Styrene	<100		1000	1050		ug/L		105	71 - 117	3	30
tert-Butylbenzene	<100		1000	865		ug/L		87	61 - 119	5	30
1,1,1,2-Tetrachloroethane	<100		1000	1060		ug/L		106	64 - 118	2	30
1,1,2,2-Tetrachloroethane	<100		1000	767		ug/L		77	63 - 122	7	30
Tetrachloroethene	<100		1000	1030		ug/L		103	70 - 117	0	30
Toluene	<100		1000	960		ug/L		96	78 - 114	2	30
trans-1,2-Dichloroethene	<100		1000	1030		ug/L		103	80 - 119	0	30
1,2,3-Trichlorobenzene	100		1000	610		ug/L		51	45 - 129	30	30
1,2,4-Trichlorobenzene	130		1000	667		ug/L		53	38 - 138	18	30
1,1,1-Trichloroethane	<100		1000	1140		ug/L		114	68 - 121	1	30
1,1,2-Trichloroethane	<100		1000	973		ug/L		97	75 - 115	4	30
Trichloroethene	2900		1000	4040	E	ug/L		110	66 - 120	0	30
Trichlorofluoromethane	<100		1000	1140		ug/L		114	46 - 157	1	30
1,2,3-Trichloropropane	<100		1000	803		ug/L		80	67 - 132	2	30
1,2,4-Trimethylbenzene	<100		1000	935		ug/L		93	67 - 124	5	30
1,3,5-Trimethylbenzene	<100		1000	910		ug/L		91	63 - 121	3	30
Vinyl chloride	<100		1000	983		ug/L		98	49 - 130	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*66 - 117*
Dibromofluoromethane (Surr)	*104*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*100*		*63 - 129*
Toluene-d8 (Surr)	*91*		*74 - 115*

Lab Sample ID: MB 240-94349/6
Matrix: Water
Analysis Batch: 94349

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			07/20/13 16:08	1
Bromobenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
Bromochloromethane	<1.0		1.0		ug/L			07/20/13 16:08	1
Bromodichloromethane	<1.0		1.0		ug/L			07/20/13 16:08	1
Bromoform	<1.0		1.0		ug/L			07/20/13 16:08	1
Bromomethane	<1.0		1.0		ug/L			07/20/13 16:08	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/20/13 16:08	1
Chlorobenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/20/13 16:08	1
Chloroethane	<1.0		1.0		ug/L			07/20/13 16:08	1
Chloroform	<1.0		1.0		ug/L			07/20/13 16:08	1
Chloromethane	<1.0		1.0		ug/L			07/20/13 16:08	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/20/13 16:08	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/20/13 16:08	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0		ug/L			07/20/13 16:08	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/20/13 16:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-94349/6
Matrix: Water
Analysis Batch: 94349

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/20/13 16:08	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,4-Dioxane	<50		50		ug/L			07/20/13 16:08	1
Ethylbenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/20/13 16:08	1
Isopropylbenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
Methylene Chloride	<1.0		1.0		ug/L			07/20/13 16:08	1
m-Xylene & p-Xylene	<2.0		2.0		ug/L			07/20/13 16:08	1
Naphthalene	<1.0		1.0		ug/L			07/20/13 16:08	1
n-Butylbenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
N-Propylbenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
o-Xylene	<1.0		1.0		ug/L			07/20/13 16:08	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/20/13 16:08	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
Styrene	<1.0		1.0		ug/L			07/20/13 16:08	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/20/13 16:08	1
Tetrachloroethene	<1.0		1.0		ug/L			07/20/13 16:08	1
Toluene	<1.0		1.0		ug/L			07/20/13 16:08	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/20/13 16:08	1
Trichloroethene	<1.0		1.0		ug/L			07/20/13 16:08	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/20/13 16:08	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/20/13 16:08	1
Vinyl chloride	<1.0		1.0		ug/L			07/20/13 16:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*66 - 117*		*07/20/13 16:08*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 121*		*07/20/13 16:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*63 - 129*		*07/20/13 16:08*	*1*
Toluene-d8 (Surr)	*81*		*74 - 115*		*07/20/13 16:08*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-94349/7
Matrix: Water
Analysis Batch: 94349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.5		ug/L		105	83 - 112
Bromobenzene	10.0	9.24		ug/L		92	76 - 115
Bromochloromethane	10.0	11.7		ug/L		117	77 - 120
Bromodichloromethane	10.0	11.7		ug/L		117	72 - 121
Bromoform	10.0	11.1		ug/L		111	40 - 131
Bromomethane	10.0	10.3		ug/L		103	11 - 185
Carbon tetrachloride	10.0	12.1		ug/L		121	66 - 128
Chlorobenzene	10.0	10.2		ug/L		102	85 - 110
Chlorodibromomethane	10.0	10.7		ug/L		107	64 - 119
Chloroethane	10.0	8.35		ug/L		83	25 - 153
Chloroform	10.0	11.3		ug/L		113	79 - 117
Chloromethane	10.0	9.33		ug/L		93	44 - 126
2-Chlorotoluene	10.0	9.16		ug/L		92	76 - 116
4-Chlorotoluene	10.0	9.46		ug/L		95	77 - 115
cis-1,2-Dichloroethene	10.0	11.1		ug/L		111	80 - 113
1,2-Dibromo-3-Chloropropane	10.0	7.38		ug/L		74	42 - 136
1,2-Dibromoethane	10.0	10.3		ug/L		103	79 - 113
Dibromomethane	10.0	11.8		ug/L		118	81 - 120
1,2-Dichlorobenzene	10.0	8.97		ug/L		90	81 - 110
1,3-Dichlorobenzene	10.0	9.21		ug/L		92	80 - 110
1,4-Dichlorobenzene	10.0	8.97		ug/L		90	82 - 110
Dichlorodifluoromethane	10.0	12.4		ug/L		124	19 - 129
1,1-Dichloroethane	10.0	10.9		ug/L		109	82 - 115
1,2-Dichloroethane	10.0	11.8		ug/L		118	71 - 127
1,1-Dichloroethene	10.0	10.9		ug/L		109	78 - 131
1,2-Dichloropropane	10.0	10.2		ug/L		102	81 - 115
1,3-Dichloropropane	10.0	9.74		ug/L		97	79 - 116
2,2-Dichloropropane	10.0	11.5		ug/L		115	50 - 129
1,1-Dichloropropene	10.0	11.1		ug/L		111	83 - 114
Ethylbenzene	10.0	10.2		ug/L		102	83 - 112
Hexachlorobutadiene	10.0	7.53		ug/L		75	36 - 134
Isopropylbenzene	10.0	10.7		ug/L		107	75 - 114
Methylene Chloride	10.0	10.3		ug/L		103	66 - 131
m-Xylene & p-Xylene	20.0	21.7		ug/L		109	83 - 113
Naphthalene	10.0	4.90		ug/L		49	32 - 141
n-Butylbenzene	10.0	8.95		ug/L		90	66 - 125
N-Propylbenzene	10.0	9.51		ug/L		95	74 - 121
o-Xylene	10.0	10.6		ug/L		106	83 - 113
p-Isopropyltoluene	10.0	10.0		ug/L		100	74 - 120
sec-Butylbenzene	10.0	8.96		ug/L		90	70 - 117
Styrene	10.0	10.9		ug/L		109	79 - 114
tert-Butylbenzene	10.0	8.95		ug/L		90	71 - 115
1,1,1,2-Tetrachloroethane	10.0	11.3		ug/L		113	72 - 116
1,1,2,2-Tetrachloroethane	10.0	7.73		ug/L		77	68 - 118
Tetrachloroethene	10.0	11.0		ug/L		110	79 - 114
Toluene	10.0	9.96		ug/L		100	84 - 111
trans-1,2-Dichloroethene	10.0	11.0		ug/L		110	83 - 117
1,2,3-Trichlorobenzene	10.0	5.47		ug/L		55	54 - 126

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-94349/7
Matrix: Water
Analysis Batch: 94349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	10.0	6.44		ug/L		64	48 - 135
1,1,1-Trichloroethane	10.0	11.7		ug/L		117	74 - 118
1,1,2-Trichloroethane	10.0	10.2		ug/L		102	80 - 112
Trichloroethene	10.0	11.5		ug/L		115	76 - 117
Trichlorofluoromethane	10.0	11.9		ug/L		119	49 - 157
1,2,3-Trichloropropane	10.0	8.42		ug/L		84	73 - 129
1,2,4-Trimethylbenzene	10.0	9.60		ug/L		96	76 - 120
1,3,5-Trimethylbenzene	10.0	9.62		ug/L		96	72 - 118
Vinyl chloride	10.0	10.2		ug/L		102	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*66 - 117*
Dibromofluoromethane (Surr)	*96*		*75 - 121*
1,2-Dichloroethane-d4 (Surr)	*94*		*63 - 129*
Toluene-d8 (Surr)	*88*		*74 - 115*

Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-94465/19
Matrix: Water
Analysis Batch: 94465

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<2.0		2.0		ug/L			07/20/13 20:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*74 - 120*		*07/20/13 20:37*	*1*

Lab Sample ID: LCS 240-94465/18
Matrix: Water
Analysis Batch: 94465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	10.0	9.45		ug/L		95	59 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*74 - 120*

Lab Sample ID: 240-26814-10 MS
Matrix: Water
Analysis Batch: 94465

Client Sample ID: MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	<2.0		10.0	10.2		ug/L		102	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*74 - 120*

Method: 8260B SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-26814-10 MSD
Matrix: Water
Analysis Batch: 94465

Client Sample ID: MW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	<2.0		10.0	9.73		ug/L		97	50 - 150	4	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*74 - 120*

GC/MS VOA

Analysis Batch: 94118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26814-1	TB-070913	Total/NA	WQ	8260B	
240-26814-2	MW-5	Total/NA	Water	8260B	
240-26814-3	MW-3	Total/NA	Water	8260B	
240-26814-4	MW-22	Total/NA	Water	8260B	
240-26814-5	MW-20	Total/NA	Water	8260B	
240-26814-6	MW-25	Total/NA	Water	8260B	
240-26814-7	MW-27	Total/NA	Water	8260B	
240-26814-8	MW-28	Total/NA	Water	8260B	
240-26814-9	MW-10	Total/NA	Water	8260B	
240-26814-12	MW-19	Total/NA	Water	8260B	
LCS 240-94118/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-94118/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 94286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26814-10	MW-14	Total/NA	Water	8260B	
240-26814-10 MS	MW-14	Total/NA	Water	8260B	
240-26814-10 MSD	MW-14	Total/NA	Water	8260B	
240-26814-11	DUP-1	Total/NA	Water	8260B	
240-26814-13	SEEP MANSON BRANCH #2	Total/NA	Water	8260B	
240-26814-15	SEEP G	Total/NA	Water	8260B	
240-26814-16	SEEP #2	Total/NA	Water	8260B	
240-26814-17	SEEP B	Total/NA	Water	8260B	
240-26814-18	SEEP L	Total/NA	Water	8260B	
240-26814-19	SEEP I	Total/NA	Water	8260B	
240-26814-20	MB #16	Total/NA	Water	8260B	
240-26814-21	MB #15	Total/NA	Water	8260B	
240-26814-22	DUP-2	Total/NA	Water	8260B	
240-26814-23	MB #3	Total/NA	Water	8260B	
240-26814-24	MB #5	Total/NA	Water	8260B	
LCS 240-94286/7	Lab Control Sample	Total/NA	Water	8260B	
MB 240-94286/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 94349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26814-2	MW-5	Total/NA	Water	8260B	
240-26814-5	MW-20	Total/NA	Water	8260B	
240-26814-6	MW-25	Total/NA	Water	8260B	
240-26814-10	MW-14	Total/NA	Water	8260B	
240-26814-11	DUP-1	Total/NA	Water	8260B	
240-26814-12	MW-19	Total/NA	Water	8260B	
240-26814-14	SEEP H	Total/NA	Water	8260B	
240-26814-14	SEEP H	Total/NA	Water	8260B	
240-26814-22	DUP-2	Total/NA	Water	8260B	
LCS 240-94349/7	Lab Control Sample	Total/NA	Water	8260B	
MB 240-94349/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 94465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26814-2	MW-5	Total/NA	Water	8260B SIM	
240-26814-5	MW-20	Total/NA	Water	8260B SIM	

GC/MS VOA (Continued)

Analysis Batch: 94465 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26814-6	MW-25	Total/NA	Water	8260B SIM	
240-26814-7	MW-27	Total/NA	Water	8260B SIM	
240-26814-8	MW-28	Total/NA	Water	8260B SIM	
240-26814-10	MW-14	Total/NA	Water	8260B SIM	
240-26814-10 MS	MW-14	Total/NA	Water	8260B SIM	
240-26814-10 MSD	MW-14	Total/NA	Water	8260B SIM	
240-26814-11	DUP-1	Total/NA	Water	8260B SIM	
240-26814-12	MW-19	Total/NA	Water	8260B SIM	
LCS 240-94465/18	Lab Control Sample	Total/NA	Water	8260B SIM	
MB 240-94465/19	Method Blank	Total/NA	Water	8260B SIM	

Client Sample ID: TB-070913 — **Lab Sample ID: 240-26814-1**
Date Collected: 07/09/13 10:00 — **Matrix: WQ**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94118	07/18/13 17:11	LRW	TAL CAN

Client Sample ID: MW-5 — **Lab Sample ID: 240-26814-2**
Date Collected: 07/09/13 15:00 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	94118	07/18/13 17:33	LRW	TAL CAN
Total/NA	Analysis	8260B		1	94349	07/20/13 22:39	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	94465	07/20/13 21:00	SAM	TAL CAN

Client Sample ID: MW-3 — **Lab Sample ID: 240-26814-3**
Date Collected: 07/09/13 11:20 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94118	07/18/13 17:56	LRW	TAL CAN

Client Sample ID: MW-22 — **Lab Sample ID: 240-26814-4**
Date Collected: 07/09/13 18:35 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94118	07/18/13 18:18	LRW	TAL CAN

Client Sample ID: MW-20 — **Lab Sample ID: 240-26814-5**
Date Collected: 07/09/13 12:35 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		12.5	94118	07/18/13 18:40	LRW	TAL CAN
Total/NA	Analysis	8260B		1.25	94349	07/20/13 23:01	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	94465	07/20/13 21:24	SAM	TAL CAN

Client Sample ID: MW-25 — **Lab Sample ID: 240-26814-6**
Date Collected: 07/09/13 17:10 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		125	94118	07/18/13 19:03	LRW	TAL CAN
Total/NA	Analysis	8260B		12.5	94349	07/20/13 23:23	LRW	TAL CAN

Client Sample ID: MW-25

Lab Sample ID: 240-26814-6

Date Collected: 07/09/13 17:10

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	94465	07/20/13 21:46	SAM	TAL CAN

Client Sample ID: MW-27

Lab Sample ID: 240-26814-7

Date Collected: 07/10/13 09:55

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94118	07/18/13 19:25	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	94465	07/20/13 22:09	SAM	TAL CAN

Client Sample ID: MW-28

Lab Sample ID: 240-26814-8

Date Collected: 07/10/13 10:17

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94118	07/18/13 19:47	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	94465	07/20/13 22:33	SAM	TAL CAN

Client Sample ID: MW-10

Lab Sample ID: 240-26814-9

Date Collected: 07/10/13 12:46

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94118	07/18/13 20:09	LRW	TAL CAN

Client Sample ID: MW-14

Lab Sample ID: 240-26814-10

Date Collected: 07/10/13 11:35

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	94286	07/19/13 15:24	LRW	TAL CAN
Total/NA	Analysis	8260B		10	94349	07/20/13 23:45	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	94465	07/20/13 22:56	SAM	TAL CAN

Client Sample ID: DUP-1

Lab Sample ID: 240-26814-11

Date Collected: 07/10/13 12:00

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	94286	07/19/13 15:47	LRW	TAL CAN
Total/NA	Analysis	8260B		10	94349	07/21/13 00:07	LRW	TAL CAN

Client Sample ID: DUP-1

Lab Sample ID: 240-26814-11

Date Collected: 07/10/13 12:00

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	94465	07/21/13 00:07	SAM	TAL CAN

Client Sample ID: MW-19

Lab Sample ID: 240-26814-12

Date Collected: 07/10/13 13:22

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		142.86	94118	07/18/13 21:16	LRW	TAL CAN
Total/NA	Analysis	8260B		14.28	94349	07/21/13 00:30	LRW	TAL CAN
Total/NA	Analysis	8260B SIM		1	94465	07/21/13 00:30	SAM	TAL CAN

Client Sample ID: SEEP MANSON BRANCH #2

Lab Sample ID: 240-26814-13

Date Collected: 07/10/13 15:02

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 16:09	LRW	TAL CAN

Client Sample ID: SEEP H

Lab Sample ID: 240-26814-14

Date Collected: 07/10/13 15:12

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1.67	94349	07/21/13 00:52	LRW	TAL CAN
Total/NA	Analysis	8260B		16.67	94349	07/20/13 17:48	LRW	TAL CAN

Client Sample ID: SEEP G

Lab Sample ID: 240-26814-15

Date Collected: 07/10/13 15:35

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 16:54	LRW	TAL CAN

Client Sample ID: SEEP #2

Lab Sample ID: 240-26814-16

Date Collected: 07/10/13 15:40

Matrix: Water

Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 17:16	LRW	TAL CAN

Client Sample ID: SEEP B — Lab Sample ID: 240-26814-17

Date Collected: 07/10/13 15:50 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 17:39	LRW	TAL CAN

Client Sample ID: SEEP L — Lab Sample ID: 240-26814-18

Date Collected: 07/10/13 16:00 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 18:01	LRW	TAL CAN

Client Sample ID: SEEP I — Lab Sample ID: 240-26814-19

Date Collected: 07/10/13 16:05 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 18:23	LRW	TAL CAN

Client Sample ID: MB #16 — Lab Sample ID: 240-26814-20

Date Collected: 07/10/13 16:15 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 18:45	LRW	TAL CAN

Client Sample ID: MB #15 — Lab Sample ID: 240-26814-21

Date Collected: 07/10/13 16:30 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 19:08	LRW	TAL CAN

Client Sample ID: DUP-2 — Lab Sample ID: 240-26814-22

Date Collected: 07/10/13 12:00 — **Matrix: Water**
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		14.28	94286	07/19/13 19:30	LRW	TAL CAN
Total/NA	Analysis	8260B		1.43	94349	07/21/13 01:14	LRW	TAL CAN

Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Client Sample ID: MB #3

Lab Sample ID: 240-26814-23

Date Collected: 07/10/13 16:40
Matrix: Water
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 19:52	LRW	TAL CAN

Client Sample ID: MB #5

Lab Sample ID: 240-26814-24

Date Collected: 07/10/13 16:55
Matrix: Water
Date Received: 07/12/13 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	94286	07/19/13 20:15	LRW	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: AMEC Environment & Infrastructure, Inc.
Project/Site: TK LOUISVILLE, LOUISVILLE, GA

TestAmerica Job ID: 240-26814-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-13 *
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-13

* Expired certification is currently pending renewal and is considered valid.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
AMEC E+I	Rhonda Quinn / Greg Wrenn	7/11/13	006958
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
1075 Big Shanty Rd Ste 100	770-421-3400		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144		~~Patti~~	
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville, Louisville, GA	FedEx 833261318332		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: VOC 8260B	1,4-Dioxane (SIM)	Special Instructions/ Conditions of Receipt
TB-070913	7/9/13	1000		X						X			2		
MW-5		1500		X						X			2	2	
MW-3		1120		X						X			3		
MW-22		1835		X						X			3		
MW-20		1235		X						X			3	3	
MW-25		1710		X						X			3	3	
MW-27	7/10/13	0955		X						X			2	2	
MW-28		1017		X						X			2	2	
MW-10		1246		X						X			3		
MW-14		1135		X						X			3	3	
DUP-1		1200		X						X			3	3	
MW-19		1322		X						X			3	3	

240-26814 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Daniel L Howard	7/11/13	1245	1. Received By:	7/12/13	915
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: *WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy*

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
AMEC E&I	Rhonda Quinn / Greg Wrenn	7/11/13	006959
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
1075 Big Shanty Rd Ste 100	770-421-3400		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Kennesaw / GA / 30144			
Project Name and Location (State)	**Carrier/Waybill Number**		
TK Louisville, Louisville, GA	FedEx 833261318332		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOC + 1,4 Dioxane 8260B	Special Instructions/ Conditions of Receipt
pH Seep Manson Branch #2	7/10/13	1502		X						X			3	
Seep H		1512		X						X			3	
Seep G		1535		X						X			3	
Seep #2		1540		X						X			3	
Seep B		1550		X						X			3	
Seep L		1600		X						X			3	
Seep I		1605		X						X			3	
MB #16		1615		X						X			3	
MB #15		1630		X						X			3	
DUP-2		1200		X						X			3	
MB #3		1640		X						X			3	
MB #5		1655		X						X			3	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: David R Howard	7/11/13	1245	1. Received By:	7/12/13	905
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 26814**
Canton Facility

Client AMEC E+I Site Name _____ Cooler unpacked by: Terell Vann

Cooler Received on 7-12-13 Opened on 7-12-13

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A	(CF –1 °C) Observed Cooler Temp. 3.2 °C	Corrected Cooler Temp. 2.2 °C	☐ See Multiple Cooler Form
IR GUN# 4	(CF 0 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 5	(CF +1 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	
IR GUN# 8	(CF -0 °C) Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# HC376062
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: Terell Vann

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Pace Analytical Services, Inc.
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(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

January 21, 2014

Rhonda Quinn
Amec
1075 Big Shanty Rd
Suite 100
Kennesaw, GA 30144

RE: Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Dear Rhonda Quinn:
Enclosed are the analytical results for sample(s) received by the laboratory on January 10, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Greg Wrenn, Amec

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CERTIFICATIONS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92186031002	**MW-10**	Water	01/07/14 16:32	01/10/14 11:20
92186031003	**MW-5**	Water	01/08/14 11:50	01/10/14 11:20
92186031004	**DUP-1**	Water	01/08/14 12:00	01/10/14 11:20
92186031005	**MW-25**	Water	01/08/14 16:02	01/10/14 11:20
92186031006	**MW-27**	Water	01/08/14 16:36	01/10/14 11:20
92186031007	**MW-14**	Water	01/08/14 14:10	01/10/14 11:20
92186031008	**MW-28**	Water	01/08/14 17:16	01/10/14 11:20
92186031009	**MW-19**	Water	01/08/14 16:25	01/10/14 11:20
92186031010	**EB-1**	Water	01/09/14 09:45	01/10/14 11:20
92186031011	**MW-3**	Water	01/09/14 11:38	01/10/14 11:20
92186031012	**MW-22**	Water	01/09/14 11:20	01/10/14 11:20
92186031013	**MW-20**	Water	01/09/14 14:45	01/10/14 11:20
92186031014	**Manson Branch #2**	Water	01/09/14 13:40	01/10/14 11:20
92186031015	**Seep B**	Water	01/09/14 14:30	01/10/14 11:20
92186031016	**Seep L**	Water	01/09/14 15:30	01/10/14 11:20
92186031017	**Seep I**	Water	01/09/14 14:50	01/10/14 11:20
92186031018	**Seep H**	Water	01/09/14 13:55	01/10/14 11:20
92186031019	**Seep G**	Water	01/09/14 14:15	01/10/14 11:20
92186031020	**Seep 2**	Water	01/09/14 14:35	01/10/14 11:20
92186031021	**MB#5**	Water	01/09/14 16:02	01/10/14 11:20
92186031022	**MB#15**	Water	01/09/14 16:08	01/10/14 11:20
92186031023	**MB#16**	Water	01/09/14 15:55	01/10/14 11:20
92186031024	**MB#3**	Water	01/09/14 16:15	01/10/14 11:20

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SAMPLE ANALYTE COUNT

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92186031002	**MW-10**	EPA 8260	MCK	61	PASI-C
92186031003	**MW-5**	EPA 8260	MCK	61	PASI-C
		EPA 8260B Mod.	MCK	3	PASI-C
92186031004	**DUP-1**	EPA 8260	MCK	61	PASI-C
		EPA 8260B Mod.	MCK	3	PASI-C
92186031005	**MW-25**	EPA 8260	CAM, MCK	61	PASI-C
		EPA 8260B Mod.	MCK	3	PASI-C
92186031006	**MW-27**	EPA 8260	MCK	61	PASI-C
		EPA 8260B Mod.	MCK	3	PASI-C
92186031007	**MW-14**	EPA 8260	MCK	61	PASI-C
		EPA 8260B Mod.	MCK	3	PASI-C
92186031008	**MW-28**	EPA 8260	MCK	61	PASI-C
		EPA 8260B Mod.	MCK	3	PASI-C
92186031009	**MW-19**	EPA 8260	MCK	61	PASI-C
		EPA 8260B Mod.	MCK	3	PASI-C
92186031010	**EB-1**	EPA 8260	MCK	61	PASI-C
		EPA 8260B Mod.	MCK	3	PASI-C
92186031011	**MW-3**	EPA 8260	MCK	61	PASI-C
92186031012	**MW-22**	EPA 8260	MCK	61	PASI-C
92186031013	**MW-20**	EPA 8260	MCK	61	PASI-C
		EPA 8260B Mod.	MCK	3	PASI-C
92186031014	**Manson Branch #2**	EPA 8260	MCK	61	PASI-C
92186031015	**Seep B**	EPA 8260	MCK	61	PASI-C
92186031016	**Seep L**	EPA 8260	MCK	61	PASI-C
92186031017	**Seep I**	EPA 8260	MCK	61	PASI-C
92186031018	**Seep H**	EPA 8260	CAH, MCK	61	PASI-C
92186031019	**Seep G**	EPA 8260	MCK	61	PASI-C
92186031020	**Seep 2**	EPA 8260	MCK	61	PASI-C
92186031021	**MB#5**	EPA 8260	MCK	61	PASI-C
92186031022	**MB#15**	EPA 8260	MCK	61	PASI-C
92186031023	**MB#16**	EPA 8260	MCK	61	PASI-C
92186031024	**MB#3**	EPA 8260	MCK	61	PASI-C

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PROJECT NARRATIVE

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: AMEC Environment & Infrastructure
Date: January 21, 2014

General Information:
23 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/25492

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 1120745)
  - 1,4-Dioxane (p-Dioxane)

QC Batch: MSV/25493

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1120751)
  - 1,4-Dioxane (p-Dioxane)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM
Client: AMEC Environment & Infrastructure
Date: January 21, 2014

General Information:
9 samples were analyzed for EPA 8260B Mod.. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/25536

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92186031007

R1: RPD value was outside control limits.

- MSD (Lab ID: 1123183)
  - 1,4-Dioxane (p-Dioxane)

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-10 **Lab ID: 92186031002** Collected: 01/07/14 16:32 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/15/14 20:09	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:09	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/15/14 20:09	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/15/14 20:09	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/15/14 20:09	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/15/14 20:09	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/15/14 20:09	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/15/14 20:09	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/15/14 20:09	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/15/14 20:09	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/15/14 20:09	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/15/14 20:09	75-00-3	
Chloroform	**1.2**	ug/L	1.0	0.14	1		01/15/14 20:09	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/15/14 20:09	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/15/14 20:09	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/15/14 20:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/15/14 20:09	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/15/14 20:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/15/14 20:09	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/15/14 20:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/15/14 20:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/15/14 20:09	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/15/14 20:09	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/15/14 20:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/15/14 20:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/15/14 20:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/15/14 20:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/15/14 20:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/15/14 20:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/15/14 20:09	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/15/14 20:09	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/15/14 20:09	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/15/14 20:09	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/15/14 20:09	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/15/14 20:09	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/15/14 20:09	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/15/14 20:09	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/15/14 20:09	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/15/14 20:09	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/15/14 20:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/15/14 20:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/15/14 20:09	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/15/14 20:09	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/15/14 20:09	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-10 **Lab ID: 92186031002** Collected: 01/07/14 16:32 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/15/14 20:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/15/14 20:09	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/15/14 20:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/15/14 20:09	79-00-5	
Trichloroethene	**1.2**	ug/L	1.0	0.47	1		01/15/14 20:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/15/14 20:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/15/14 20:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/15/14 20:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/15/14 20:09	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/15/14 20:09	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/15/14 20:09	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/15/14 20:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		01/15/14 20:09	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		01/15/14 20:09	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		01/15/14 20:09	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-5 **Lab ID: 92186031003** Collected: 01/08/14 11:50 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.0	0.50	2		01/14/14 17:43	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		01/14/14 17:43	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		01/14/14 17:43	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		01/14/14 17:43	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		01/14/14 17:43	75-25-2	
Bromomethane	ND	ug/L	4.0	0.58	2		01/14/14 17:43	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		01/14/14 17:43	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		01/14/14 17:43	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		01/14/14 17:43	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		01/14/14 17:43	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		01/14/14 17:43	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		01/14/14 17:43	75-00-3	
Chloroform	**2.3**	ug/L	2.0	0.28	2		01/14/14 17:43	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		01/14/14 17:43	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		01/14/14 17:43	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		01/14/14 17:43	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	10.0	5.0	2		01/14/14 17:43	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	0.42	2		01/14/14 17:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		01/14/14 17:43	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		01/14/14 17:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		01/14/14 17:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		01/14/14 17:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		01/14/14 17:43	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		01/14/14 17:43	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		01/14/14 17:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	0.24	2		01/14/14 17:43	107-06-2	
1,1-Dichloroethene	**19.1**	ug/L	2.0	1.1	2		01/14/14 17:43	75-35-4	
cis-1,2-Dichloroethene	**8.1**	ug/L	2.0	0.38	2		01/14/14 17:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		01/14/14 17:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		01/14/14 17:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		01/14/14 17:43	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		01/14/14 17:43	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		01/14/14 17:43	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	300	157	2		01/14/14 17:43	123-91-1	
Ethylbenzene	ND	ug/L	2.0	0.60	2		01/14/14 17:43	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.4	2		01/14/14 17:43	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		01/14/14 17:43	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		01/14/14 17:43	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1.9	2		01/14/14 17:43	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		01/14/14 17:43	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		01/14/14 17:43	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		01/14/14 17:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	0.66	2		01/14/14 17:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		01/14/14 17:43	79-34-5	
Tetrachloroethene	ND	ug/L	2.0	0.92	2		01/14/14 17:43	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		01/14/14 17:43	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-5 **Lab ID: 92186031003** Collected: 01/08/14 11:50 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		01/14/14 17:43	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		01/14/14 17:43	120-82-1	
1,1,1-Trichloroethane	**2.3**	ug/L	2.0	0.96	2		01/14/14 17:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		01/14/14 17:43	79-00-5	
Trichloroethene	**397**	ug/L	10.0	4.7	10		01/16/14 01:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	0.40	2		01/14/14 17:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		01/14/14 17:43	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		01/14/14 17:43	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		01/14/14 17:43	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1.2	2		01/14/14 17:43	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		01/14/14 17:43	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		01/14/14 17:43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		2		01/14/14 17:43	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		2		01/14/14 17:43	17060-07-0	
Toluene-d8 (S)	101	%	70-130		2		01/14/14 17:43	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/16/14 16:34	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%	50-150		1		01/16/14 16:34	17060-07-0	
Toluene-d8 (S)	102	%	50-150		1		01/16/14 16:34	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: DUP-1 **Lab ID: 92186031004** Collected: 01/08/14 12:00 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.0	0.50	2		01/15/14 22:02	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		01/15/14 22:02	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		01/15/14 22:02	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		01/15/14 22:02	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		01/15/14 22:02	75-25-2	
Bromomethane	ND	ug/L	4.0	0.58	2		01/15/14 22:02	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		01/15/14 22:02	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		01/15/14 22:02	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		01/15/14 22:02	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		01/15/14 22:02	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		01/15/14 22:02	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		01/15/14 22:02	75-00-3	
Chloroform	**2.4**	ug/L	2.0	0.28	2		01/15/14 22:02	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		01/15/14 22:02	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		01/15/14 22:02	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		01/15/14 22:02	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	10.0	5.0	2		01/15/14 22:02	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	0.42	2		01/15/14 22:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		01/15/14 22:02	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		01/15/14 22:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		01/15/14 22:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		01/15/14 22:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		01/15/14 22:02	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		01/15/14 22:02	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		01/15/14 22:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	0.24	2		01/15/14 22:02	107-06-2	
1,1-Dichloroethene	**19.6**	ug/L	2.0	1.1	2		01/15/14 22:02	75-35-4	
cis-1,2-Dichloroethene	**8.5**	ug/L	2.0	0.38	2		01/15/14 22:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		01/15/14 22:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		01/15/14 22:02	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		01/15/14 22:02	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		01/15/14 22:02	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		01/15/14 22:02	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	300	157	2		01/15/14 22:02	123-91-1	
Ethylbenzene	ND	ug/L	2.0	0.60	2		01/15/14 22:02	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.4	2		01/15/14 22:02	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		01/15/14 22:02	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		01/15/14 22:02	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1.9	2		01/15/14 22:02	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		01/15/14 22:02	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		01/15/14 22:02	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		01/15/14 22:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	0.66	2		01/15/14 22:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		01/15/14 22:02	79-34-5	
Tetrachloroethene	ND	ug/L	2.0	0.92	2		01/15/14 22:02	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		01/15/14 22:02	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: DUP-1 **Lab ID: 92186031004** Collected: 01/08/14 12:00 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		01/15/14 22:02	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		01/15/14 22:02	120-82-1	
1,1,1-Trichloroethane	**2.4**	ug/L	2.0	0.96	2		01/15/14 22:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		01/15/14 22:02	79-00-5	
Trichloroethene	**345**	ug/L	20.0	9.4	20		01/14/14 17:59	79-01-6	
Trichlorofluoromethane	**3.3**	ug/L	2.0	0.40	2		01/15/14 22:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		01/15/14 22:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		01/15/14 22:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		01/15/14 22:02	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1.2	2		01/15/14 22:02	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		01/15/14 22:02	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		01/15/14 22:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		2		01/15/14 22:02	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		2		01/15/14 22:02	17060-07-0	
Toluene-d8 (S)	105	%	70-130		2		01/15/14 22:02	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/16/14 16:54	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	99	%	50-150		1		01/16/14 16:54	17060-07-0	
Toluene-d8 (S)	103	%	50-150		1		01/16/14 16:54	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-25 **Lab ID: 92186031005** Collected: 01/08/14 16:02 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	10.0	2.5	10		01/14/14 18:15	71-43-2	
Bromobenzene	ND	ug/L	10.0	3.0	10		01/14/14 18:15	108-86-1	
Bromochloromethane	ND	ug/L	10.0	1.7	10		01/14/14 18:15	74-97-5	
Bromodichloromethane	ND	ug/L	10.0	1.8	10		01/14/14 18:15	75-27-4	
Bromoform	ND	ug/L	10.0	2.6	10		01/14/14 18:15	75-25-2	
Bromomethane	ND	ug/L	20.0	2.9	10		01/14/14 18:15	74-83-9	
n-Butylbenzene	ND	ug/L	10.0	4.1	10		01/14/14 18:15	104-51-8	
sec-Butylbenzene	ND	ug/L	10.0	3.8	10		01/14/14 18:15	135-98-8	
tert-Butylbenzene	ND	ug/L	10.0	4.0	10		01/14/14 18:15	98-06-6	
Carbon tetrachloride	ND	ug/L	10.0	2.5	10		01/14/14 18:15	56-23-5	
Chlorobenzene	ND	ug/L	10.0	2.3	10		01/14/14 18:15	108-90-7	
Chloroethane	ND	ug/L	10.0	5.4	10		01/14/14 18:15	75-00-3	
Chloroform	ND	ug/L	10.0	1.4	10		01/14/14 18:15	67-66-3	
Chloromethane	ND	ug/L	10.0	1.1	10		01/14/14 18:15	74-87-3	
2-Chlorotoluene	ND	ug/L	10.0	3.5	10		01/14/14 18:15	95-49-8	
4-Chlorotoluene	ND	ug/L	10.0	3.1	10		01/14/14 18:15	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	50.0	25.2	10		01/14/14 18:15	96-12-8	
Dibromochloromethane	ND	ug/L	10.0	2.1	10		01/14/14 18:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	10.0	2.7	10		01/14/14 18:15	106-93-4	
Dibromomethane	ND	ug/L	10.0	2.1	10		01/14/14 18:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	10.0	3.0	10		01/14/14 18:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	2.4	10		01/14/14 18:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	3.3	10		01/14/14 18:15	106-46-7	
Dichlorodifluoromethane	ND	ug/L	10.0	2.1	10		01/14/14 18:15	75-71-8	
1,1-Dichloroethane	ND	ug/L	10.0	3.2	10		01/14/14 18:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	10.0	1.2	10		01/14/14 18:15	107-06-2	
1,1-Dichloroethene	**20.9**	ug/L	10.0	5.6	10		01/14/14 18:15	75-35-4	
cis-1,2-Dichloroethene	**772**	ug/L	10.0	1.9	10		01/14/14 18:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	10.0	4.9	10		01/14/14 18:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	10.0	2.7	10		01/14/14 18:15	78-87-5	
1,3-Dichloropropane	ND	ug/L	10.0	2.8	10		01/14/14 18:15	142-28-9	
2,2-Dichloropropane	ND	ug/L	10.0	1.3	10		01/14/14 18:15	594-20-7	
1,1-Dichloropropene	ND	ug/L	10.0	4.9	10		01/14/14 18:15	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	1500	784	10		01/14/14 18:15	123-91-1	
Ethylbenzene	ND	ug/L	10.0	3.0	10		01/14/14 18:15	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	7.1	10		01/14/14 18:15	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	10.0	4.0	10		01/14/14 18:15	98-82-8	
p-Isopropyltoluene	ND	ug/L	10.0	3.1	10		01/14/14 18:15	99-87-6	
Methylene Chloride	ND	ug/L	20.0	9.7	10		01/14/14 18:15	75-09-2	
Naphthalene	ND	ug/L	10.0	2.4	10		01/14/14 18:15	91-20-3	
n-Propylbenzene	ND	ug/L	10.0	4.2	10		01/14/14 18:15	103-65-1	
Styrene	ND	ug/L	10.0	2.6	10		01/14/14 18:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	10.0	3.3	10		01/14/14 18:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	10.0	4.0	10		01/14/14 18:15	79-34-5	
Tetrachloroethene	ND	ug/L	10.0	4.6	10		01/14/14 18:15	127-18-4	
Toluene	ND	ug/L	10.0	2.6	10		01/14/14 18:15	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-25 **Lab ID: 92186031005** Collected: 01/08/14 16:02 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	10.0	3.3	10		01/14/14 18:15	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	10.0	3.5	10		01/14/14 18:15	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	10.0	4.8	10		01/14/14 18:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	10.0	2.9	10		01/14/14 18:15	79-00-5	
Trichloroethene	**3250**	ug/L	100	47.0	100		01/13/14 20:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	10.0	2.0	10		01/14/14 18:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	10.0	4.1	10		01/14/14 18:15	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	10.0	3.1	10		01/14/14 18:15	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	10.0	3.6	10		01/14/14 18:15	108-67-8	
Vinyl chloride	**21.9**	ug/L	10.0	6.2	10		01/14/14 18:15	75-01-4	
m&p-Xylene	ND	ug/L	20.0	6.6	10		01/14/14 18:15	179601-23-1	
o-Xylene	ND	ug/L	10.0	2.3	10		01/14/14 18:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		10		01/14/14 18:15	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		10		01/14/14 18:15	17060-07-0	
Toluene-d8 (S)	106	%	70-130		10		01/14/14 18:15	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/16/14 17:14	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%	50-150		1		01/16/14 17:14	17060-07-0	
Toluene-d8 (S)	102	%	50-150		1		01/16/14 17:14	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-27 **Lab ID: 92186031006** Collected: 01/08/14 16:36 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/15/14 20:25	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:25	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/15/14 20:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/15/14 20:25	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/15/14 20:25	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/15/14 20:25	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/15/14 20:25	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/15/14 20:25	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/15/14 20:25	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/15/14 20:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/15/14 20:25	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/15/14 20:25	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/15/14 20:25	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/15/14 20:25	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/15/14 20:25	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/15/14 20:25	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/15/14 20:25	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/15/14 20:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/15/14 20:25	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/15/14 20:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/15/14 20:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/15/14 20:25	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/15/14 20:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/15/14 20:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/15/14 20:25	107-06-2	
1,1-Dichloroethene	**3.6**	ug/L	1.0	0.56	1		01/15/14 20:25	75-35-4	
cis-1,2-Dichloroethene	**16.9**	ug/L	1.0	0.19	1		01/15/14 20:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/15/14 20:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/15/14 20:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/15/14 20:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/15/14 20:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/15/14 20:25	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/15/14 20:25	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:25	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/15/14 20:25	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/15/14 20:25	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/15/14 20:25	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/15/14 20:25	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/15/14 20:25	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/15/14 20:25	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/15/14 20:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/15/14 20:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/15/14 20:25	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/15/14 20:25	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/15/14 20:25	108-88-3	

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9800 Kincey Ave. Suite 100
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(704)875-9092

ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-27 **Lab ID: 92186031006** Collected: 01/08/14 16:36 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/15/14 20:25	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/15/14 20:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/15/14 20:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/15/14 20:25	79-00-5	
Trichloroethene	**16.0**	ug/L	1.0	0.47	1		01/15/14 20:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/15/14 20:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/15/14 20:25	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/15/14 20:25	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/15/14 20:25	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/15/14 20:25	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/15/14 20:25	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/15/14 20:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		01/15/14 20:25	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		01/15/14 20:25	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/15/14 20:25	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/16/14 17:35	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	99	%	50-150		1		01/16/14 17:35	17060-07-0	
Toluene-d8 (S)	103	%	50-150		1		01/16/14 17:35	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-14 **Lab ID: 92186031007** Collected: 01/08/14 14:10 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 18:47	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 18:47	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 18:47	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 18:47	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 18:47	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 18:47	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 18:47	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 18:47	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 18:47	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 18:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 18:47	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 18:47	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 18:47	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 18:47	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 18:47	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 18:47	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 18:47	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 18:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 18:47	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 18:47	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 18:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 18:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 18:47	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 18:47	75-71-8	
1,1-Dichloroethane	**2.3**	ug/L	1.0	0.32	1		01/14/14 18:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 18:47	107-06-2	
1,1-Dichloroethene	**52.4**	ug/L	1.0	0.56	1		01/14/14 18:47	75-35-4	
cis-1,2-Dichloroethene	**254**	ug/L	20.0	3.8	20		01/16/14 01:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 18:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 18:47	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 18:47	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 18:47	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 18:47	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 18:47	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 18:47	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 18:47	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 18:47	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 18:47	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 18:47	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 18:47	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 18:47	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 18:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 18:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 18:47	79-34-5	
Tetrachloroethene	**1.6**	ug/L	1.0	0.46	1		01/14/14 18:47	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 18:47	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-14 **Lab ID: 92186031007** Collected: 01/08/14 14:10 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 18:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 18:47	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 18:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 18:47	79-00-5	
Trichloroethene	**1990**	ug/L	20.0	9.4	20		01/16/14 01:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 18:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 18:47	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 18:47	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 18:47	108-67-8	
Vinyl chloride	**1.1**	ug/L	1.0	0.62	1		01/14/14 18:47	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 18:47	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 18:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		01/14/14 18:47	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		01/14/14 18:47	17060-07-0	
Toluene-d8 (S)	110	%	70-130		1		01/14/14 18:47	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/17/14 11:16	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	89	%	50-150		1		01/17/14 11:16	17060-07-0	
Toluene-d8 (S)	103	%	50-150		1		01/17/14 11:16	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-28 **Lab ID: 92186031008** Collected: 01/08/14 17:16 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/15/14 20:41	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:41	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/15/14 20:41	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/15/14 20:41	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/15/14 20:41	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/15/14 20:41	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/15/14 20:41	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/15/14 20:41	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/15/14 20:41	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/15/14 20:41	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/15/14 20:41	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/15/14 20:41	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/15/14 20:41	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/15/14 20:41	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/15/14 20:41	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/15/14 20:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/15/14 20:41	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/15/14 20:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/15/14 20:41	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/15/14 20:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/15/14 20:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/15/14 20:41	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/15/14 20:41	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/15/14 20:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/15/14 20:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/15/14 20:41	75-35-4	
cis-1,2-Dichloroethene	**8.2**	ug/L	1.0	0.19	1		01/15/14 20:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/15/14 20:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/15/14 20:41	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/15/14 20:41	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/15/14 20:41	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/15/14 20:41	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/15/14 20:41	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:41	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/15/14 20:41	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/15/14 20:41	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/15/14 20:41	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/15/14 20:41	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/15/14 20:41	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/15/14 20:41	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/15/14 20:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/15/14 20:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/15/14 20:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/15/14 20:41	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/15/14 20:41	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-28 **Lab ID: 92186031008** Collected: 01/08/14 17:16 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/15/14 20:41	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/15/14 20:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/15/14 20:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/15/14 20:41	79-00-5	
Trichloroethene	**1.5**	ug/L	1.0	0.47	1		01/15/14 20:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/15/14 20:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/15/14 20:41	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/15/14 20:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/15/14 20:41	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/15/14 20:41	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/15/14 20:41	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/15/14 20:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		01/15/14 20:41	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		01/15/14 20:41	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		01/15/14 20:41	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/17/14 11:36	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	92	%	50-150		1		01/17/14 11:36	17060-07-0	
Toluene-d8 (S)	103	%	50-150		1		01/17/14 11:36	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-19 **Lab ID: 92186031009** Collected: 01/08/14 16:25 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 19:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 19:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 19:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 19:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 19:19	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 19:19	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 19:19	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 19:19	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 19:19	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 19:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 19:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 19:19	75-00-3	
Chloroform	**2.7**	ug/L	1.0	0.14	1		01/14/14 19:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 19:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 19:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 19:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 19:19	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 19:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 19:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 19:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 19:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 19:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 19:19	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 19:19	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 19:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 19:19	107-06-2	
1,1-Dichloroethene	**48.2**	ug/L	1.0	0.56	1		01/14/14 19:19	75-35-4	
cis-1,2-Dichloroethene	**23.2**	ug/L	1.0	0.19	1		01/14/14 19:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 19:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 19:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 19:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 19:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 19:19	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 19:19	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 19:19	100-41-4	
Hexachloro-1,3-butadiene	**2.1**	ug/L	1.0	0.71	1		01/14/14 19:19	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 19:19	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 19:19	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 19:19	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 19:19	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 19:19	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 19:19	100-42-5	
1,1,1,2-Tetrachloroethane	**9.2**	ug/L	1.0	0.33	1		01/14/14 19:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 19:19	79-34-5	
Tetrachloroethene	**2.1**	ug/L	1.0	0.46	1		01/14/14 19:19	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 19:19	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-19 **Lab ID: 92186031009** Collected: 01/08/14 16:25 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 19:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 19:19	120-82-1	
1,1,1-Trichloroethane	**7.0**	ug/L	1.0	0.48	1		01/14/14 19:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 19:19	79-00-5	
Trichloroethene	**3360**	ug/L	25.0	11.8	25		01/16/14 01:32	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 19:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 19:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 19:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 19:19	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 19:19	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 19:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 19:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		01/14/14 19:19	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		01/14/14 19:19	17060-07-0	
Toluene-d8 (S)	113	%	70-130		1		01/14/14 19:19	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/17/14 12:18	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	89	%	50-150		1		01/17/14 12:18	17060-07-0	
Toluene-d8 (S)	104	%	50-150		1		01/17/14 12:18	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: EB-1 **Lab ID: 92186031010** Collected: 01/09/14 09:45 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/15/14 20:58	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:58	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/15/14 20:58	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/15/14 20:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/15/14 20:58	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/15/14 20:58	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/15/14 20:58	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/15/14 20:58	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/15/14 20:58	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/15/14 20:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/15/14 20:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/15/14 20:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/15/14 20:58	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/15/14 20:58	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/15/14 20:58	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/15/14 20:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/15/14 20:58	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/15/14 20:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/15/14 20:58	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/15/14 20:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/15/14 20:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/15/14 20:58	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/15/14 20:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/15/14 20:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/15/14 20:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/15/14 20:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/15/14 20:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/15/14 20:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/15/14 20:58	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/15/14 20:58	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/15/14 20:58	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/15/14 20:58	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/15/14 20:58	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/15/14 20:58	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/15/14 20:58	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/15/14 20:58	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/15/14 20:58	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/15/14 20:58	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/15/14 20:58	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/15/14 20:58	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/15/14 20:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/15/14 20:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/15/14 20:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/15/14 20:58	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/15/14 20:58	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: EB-1 **Lab ID: 92186031010** Collected: 01/09/14 09:45 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/15/14 20:58	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/15/14 20:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/15/14 20:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/15/14 20:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/15/14 20:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/15/14 20:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/15/14 20:58	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/15/14 20:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/15/14 20:58	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/15/14 20:58	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/15/14 20:58	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/15/14 20:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		01/15/14 20:58	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		01/15/14 20:58	17060-07-0	
Toluene-d8 (S)	113	%	70-130		1		01/15/14 20:58	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/17/14 12:38	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	89	%	50-150		1		01/17/14 12:38	17060-07-0	
Toluene-d8 (S)	104	%	50-150		1		01/17/14 12:38	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-3 **Lab ID: 92186031011** Collected: 01/09/14 11:38 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 19:52	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 19:52	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 19:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 19:52	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 19:52	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 19:52	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 19:52	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 19:52	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 19:52	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 19:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 19:52	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 19:52	75-00-3	
Chloroform	**2.5**	ug/L	1.0	0.14	1		01/14/14 19:52	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 19:52	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 19:52	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 19:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 19:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 19:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 19:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 19:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 19:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 19:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 19:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 19:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 19:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 19:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 19:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/14/14 19:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 19:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 19:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 19:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 19:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 19:52	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 19:52	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 19:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 19:52	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 19:52	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 19:52	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 19:52	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 19:52	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 19:52	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 19:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 19:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 19:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 19:52	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 19:52	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-3 **Lab ID: 92186031011** Collected: 01/09/14 11:38 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 19:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 19:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 19:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 19:52	79-00-5	
Trichloroethene	**3.7**	ug/L	1.0	0.47	1		01/14/14 19:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 19:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 19:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 19:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 19:52	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 19:52	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 19:52	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 19:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		01/14/14 19:52	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		01/14/14 19:52	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		01/14/14 19:52	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-22 **Lab ID: 92186031012** Collected: 01/09/14 11:20 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 20:08	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:08	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 20:08	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 20:08	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 20:08	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 20:08	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 20:08	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 20:08	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 20:08	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 20:08	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 20:08	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 20:08	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 20:08	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 20:08	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 20:08	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 20:08	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 20:08	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 20:08	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 20:08	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 20:08	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:08	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 20:08	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 20:08	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 20:08	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 20:08	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 20:08	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 20:08	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/14/14 20:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 20:08	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 20:08	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 20:08	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 20:08	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 20:08	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 20:08	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:08	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 20:08	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 20:08	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 20:08	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 20:08	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 20:08	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 20:08	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 20:08	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 20:08	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 20:08	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 20:08	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 20:08	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-22 **Lab ID: 92186031012** Collected: 01/09/14 11:20 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 20:08	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 20:08	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 20:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 20:08	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 20:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 20:08	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 20:08	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 20:08	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 20:08	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 20:08	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 20:08	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 20:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		01/14/14 20:08	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		01/14/14 20:08	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		01/14/14 20:08	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-20 **Lab ID: 92186031013** Collected: 01/09/14 14:45 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 20:24	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:24	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 20:24	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 20:24	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 20:24	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 20:24	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 20:24	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 20:24	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 20:24	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 20:24	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 20:24	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 20:24	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 20:24	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 20:24	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 20:24	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 20:24	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 20:24	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 20:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 20:24	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 20:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 20:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 20:24	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 20:24	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 20:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 20:24	107-06-2	
1,1-Dichloroethene	**5.8**	ug/L	1.0	0.56	1		01/14/14 20:24	75-35-4	
cis-1,2-Dichloroethene	**316**	ug/L	5.0	0.95	5		01/16/14 01:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 20:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 20:24	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 20:24	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 20:24	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 20:24	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 20:24	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:24	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 20:24	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 20:24	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 20:24	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 20:24	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 20:24	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 20:24	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 20:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 20:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 20:24	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 20:24	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 20:24	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MW-20 **Lab ID: 92186031013** Collected: 01/09/14 14:45 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 20:24	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 20:24	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 20:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 20:24	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 20:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 20:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 20:24	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 20:24	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 20:24	108-67-8	
Vinyl chloride	**2.1**	ug/L	1.0	0.62	1		01/14/14 20:24	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 20:24	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 20:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		01/14/14 20:24	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		01/14/14 20:24	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/14/14 20:24	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/17/14 12:59	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	88	%	50-150		1		01/17/14 12:59	17060-07-0	
Toluene-d8 (S)	103	%	50-150		1		01/17/14 12:59	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Manson Branch #2 **Lab ID: 92186031014** Collected: 01/09/14 13:40 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 20:40	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:40	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 20:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 20:40	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 20:40	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 20:40	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 20:40	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 20:40	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 20:40	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 20:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 20:40	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 20:40	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 20:40	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 20:40	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 20:40	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 20:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 20:40	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 20:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 20:40	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 20:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 20:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 20:40	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 20:40	75-71-8	
1,1-Dichloroethane	**2.4**	ug/L	1.0	0.32	1		01/14/14 20:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 20:40	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 20:40	75-35-4	
cis-1,2-Dichloroethene	**6.5**	ug/L	1.0	0.19	1		01/14/14 20:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 20:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 20:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 20:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 20:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 20:40	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 20:40	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 20:40	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 20:40	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 20:40	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 20:40	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 20:40	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 20:40	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 20:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 20:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 20:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 20:40	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 20:40	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Manson Branch #2 **Lab ID: 92186031014** Collected: 01/09/14 13:40 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 20:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 20:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 20:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 20:40	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 20:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 20:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 20:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 20:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 20:40	108-67-8	
Vinyl chloride	**13.8**	ug/L	1.0	0.62	1		01/14/14 20:40	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 20:40	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 20:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		01/14/14 20:40	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		01/14/14 20:40	17060-07-0	
Toluene-d8 (S)	117	%	70-130		1		01/14/14 20:40	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep B **Lab ID: 92186031015** Collected: 01/09/14 14:30 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 20:56	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:56	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 20:56	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 20:56	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 20:56	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 20:56	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 20:56	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 20:56	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 20:56	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 20:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 20:56	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 20:56	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 20:56	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 20:56	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 20:56	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 20:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 20:56	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 20:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 20:56	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 20:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 20:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 20:56	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 20:56	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 20:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 20:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 20:56	75-35-4	
cis-1,2-Dichloroethene	**3.0**	ug/L	1.0	0.19	1		01/14/14 20:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 20:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 20:56	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 20:56	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 20:56	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 20:56	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 20:56	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 20:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 20:56	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 20:56	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 20:56	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 20:56	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 20:56	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 20:56	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 20:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 20:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 20:56	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 20:56	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 20:56	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep B **Lab ID: 92186031015** Collected: 01/09/14 14:30 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 20:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 20:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 20:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 20:56	79-00-5	
Trichloroethene	**1.4**	ug/L	1.0	0.47	1		01/14/14 20:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 20:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 20:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 20:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 20:56	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 20:56	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 20:56	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 20:56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		01/14/14 20:56	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		01/14/14 20:56	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		01/14/14 20:56	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep L **Lab ID: 92186031016** Collected: 01/09/14 15:30 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 21:12	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 21:12	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 21:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 21:12	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 21:12	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 21:12	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 21:12	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 21:12	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 21:12	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 21:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 21:12	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 21:12	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 21:12	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 21:12	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 21:12	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 21:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 21:12	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 21:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 21:12	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 21:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 21:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 21:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 21:12	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 21:12	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 21:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 21:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 21:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/14/14 21:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 21:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 21:12	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 21:12	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 21:12	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 21:12	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 21:12	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 21:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 21:12	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 21:12	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 21:12	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 21:12	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 21:12	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 21:12	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 21:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 21:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 21:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 21:12	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 21:12	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep L **Lab ID: 92186031016** Collected: 01/09/14 15:30 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 21:12	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 21:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 21:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 21:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 21:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 21:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 21:12	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 21:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 21:12	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 21:12	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 21:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 21:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		01/14/14 21:12	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		01/14/14 21:12	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		01/14/14 21:12	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep I **Lab ID: 92186031017** Collected: 01/09/14 14:50 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 21:29	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 21:29	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 21:29	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 21:29	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 21:29	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 21:29	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 21:29	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 21:29	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 21:29	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 21:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 21:29	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 21:29	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 21:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 21:29	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 21:29	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 21:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 21:29	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 21:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 21:29	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 21:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 21:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 21:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 21:29	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 21:29	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 21:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 21:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 21:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/14/14 21:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 21:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 21:29	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 21:29	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 21:29	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 21:29	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 21:29	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 21:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 21:29	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 21:29	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 21:29	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 21:29	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 21:29	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 21:29	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 21:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 21:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 21:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 21:29	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 21:29	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep I **Lab ID: 92186031017** Collected: 01/09/14 14:50 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 21:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 21:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 21:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 21:29	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 21:29	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 21:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 21:29	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 21:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 21:29	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 21:29	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 21:29	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 21:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		01/14/14 21:29	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		01/14/14 21:29	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		01/14/14 21:29	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep H **Lab ID: 92186031018** Collected: 01/09/14 13:55 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 21:45	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 21:45	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 21:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 21:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 21:45	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 21:45	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 21:45	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 21:45	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 21:45	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 21:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 21:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 21:45	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 21:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 21:45	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 21:45	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 21:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 21:45	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 21:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 21:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 21:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 21:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 21:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 21:45	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 21:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 21:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 21:45	107-06-2	
1,1-Dichloroethene	**29.1**	ug/L	1.0	0.56	1		01/14/14 21:45	75-35-4	
cis-1,2-Dichloroethene	**22.3**	ug/L	1.0	0.19	1		01/14/14 21:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 21:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 21:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 21:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 21:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 21:45	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 21:45	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 21:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 21:45	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 21:45	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 21:45	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 21:45	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 21:45	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 21:45	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 21:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 21:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 21:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 21:45	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 21:45	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep H **Lab ID: 92186031018** Collected: 01/09/14 13:55 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 21:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 21:45	120-82-1	
1,1,1-Trichloroethane	**4.0**	ug/L	1.0	0.48	1		01/14/14 21:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 21:45	79-00-5	
Trichloroethene	**180**	ug/L	5.0	2.4	5		01/16/14 14:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 21:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 21:45	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 21:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 21:45	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 21:45	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 21:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 21:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		01/14/14 21:45	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		01/14/14 21:45	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		01/14/14 21:45	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep G **Lab ID: 92186031019** Collected: 01/09/14 14:15 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 22:01	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:01	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 22:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 22:01	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 22:01	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 22:01	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 22:01	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 22:01	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 22:01	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 22:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 22:01	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 22:01	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 22:01	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 22:01	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 22:01	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 22:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 22:01	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 22:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 22:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 22:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 22:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 22:01	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 22:01	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 22:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 22:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 22:01	75-35-4	
cis-1,2-Dichloroethene	**3.2**	ug/L	1.0	0.19	1		01/14/14 22:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 22:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 22:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 22:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 22:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 22:01	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 22:01	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 22:01	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 22:01	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 22:01	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 22:01	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 22:01	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 22:01	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 22:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 22:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 22:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 22:01	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 22:01	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep G **Lab ID: 92186031019** Collected: 01/09/14 14:15 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 22:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 22:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 22:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 22:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 22:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 22:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 22:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 22:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 22:01	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 22:01	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 22:01	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 22:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		01/14/14 22:01	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		01/14/14 22:01	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		01/14/14 22:01	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep 2 **Lab ID: 92186031020** Collected: 01/09/14 14:35 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 22:17	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:17	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 22:17	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 22:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 22:17	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 22:17	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 22:17	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 22:17	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 22:17	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 22:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 22:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 22:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 22:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 22:17	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 22:17	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 22:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 22:17	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 22:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 22:17	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 22:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 22:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 22:17	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 22:17	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 22:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 22:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 22:17	75-35-4	
cis-1,2-Dichloroethene	**3.0**	ug/L	1.0	0.19	1		01/14/14 22:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 22:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 22:17	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 22:17	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 22:17	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 22:17	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 22:17	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 22:17	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 22:17	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 22:17	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 22:17	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 22:17	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 22:17	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 22:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 22:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 22:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 22:17	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 22:17	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: Seep 2 **Lab ID: 92186031020** Collected: 01/09/14 14:35 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 22:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 22:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 22:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 22:17	79-00-5	
Trichloroethene	**2.5**	ug/L	1.0	0.47	1		01/14/14 22:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 22:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 22:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 22:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 22:17	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 22:17	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 22:17	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 22:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		01/14/14 22:17	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		01/14/14 22:17	17060-07-0	
Toluene-d8 (S)	114	%	70-130		1		01/14/14 22:17	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MB#5 **Lab ID: 92186031021** Collected: 01/09/14 16:02 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 22:33	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:33	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 22:33	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 22:33	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 22:33	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 22:33	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 22:33	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 22:33	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 22:33	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 22:33	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 22:33	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 22:33	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 22:33	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 22:33	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 22:33	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 22:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 22:33	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 22:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 22:33	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 22:33	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 22:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 22:33	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 22:33	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 22:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 22:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 22:33	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/14/14 22:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 22:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 22:33	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 22:33	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 22:33	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 22:33	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 22:33	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:33	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 22:33	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 22:33	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 22:33	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 22:33	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 22:33	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 22:33	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 22:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 22:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 22:33	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 22:33	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 22:33	108-88-3	

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(704)875-9092

ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MB#5 **Lab ID: 92186031021** Collected: 01/09/14 16:02 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 22:33	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 22:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 22:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 22:33	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 22:33	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 22:33	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 22:33	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 22:33	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 22:33	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 22:33	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 22:33	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 22:33	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		01/14/14 22:33	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		01/14/14 22:33	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/14/14 22:33	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MB#15 **Lab ID: 92186031022** Collected: 01/09/14 16:08 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 22:49	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:49	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 22:49	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 22:49	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 22:49	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 22:49	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 22:49	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 22:49	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 22:49	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 22:49	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 22:49	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 22:49	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 22:49	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 22:49	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 22:49	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 22:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 22:49	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 22:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 22:49	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 22:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 22:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 22:49	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 22:49	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 22:49	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 22:49	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 22:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/14/14 22:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 22:49	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 22:49	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 22:49	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 22:49	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 22:49	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 22:49	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 22:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 22:49	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 22:49	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 22:49	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 22:49	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 22:49	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 22:49	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 22:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 22:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 22:49	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 22:49	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 22:49	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MB#15 **Lab ID: 92186031022** Collected: 01/09/14 16:08 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 22:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 22:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 22:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 22:49	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 22:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 22:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 22:49	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 22:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 22:49	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 22:49	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 22:49	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 22:49	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		01/14/14 22:49	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		01/14/14 22:49	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		01/14/14 22:49	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MB#16 **Lab ID: 92186031023** Collected: 01/09/14 15:55 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 23:05	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 23:05	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 23:05	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 23:05	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 23:05	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 23:05	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 23:05	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 23:05	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 23:05	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 23:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 23:05	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 23:05	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 23:05	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 23:05	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 23:05	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 23:05	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 23:05	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 23:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 23:05	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 23:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 23:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 23:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 23:05	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 23:05	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 23:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 23:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 23:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/14/14 23:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 23:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 23:05	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 23:05	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 23:05	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 23:05	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 23:05	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 23:05	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 23:05	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 23:05	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 23:05	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 23:05	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 23:05	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 23:05	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 23:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 23:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 23:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 23:05	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 23:05	108-88-3	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MB#16 **Lab ID: 92186031023** Collected: 01/09/14 15:55 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 23:05	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 23:05	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 23:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 23:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 23:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 23:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 23:05	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 23:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 23:05	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 23:05	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 23:05	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 23:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		01/14/14 23:05	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		01/14/14 23:05	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		01/14/14 23:05	2037-26-5	

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MB#3 **Lab ID: 92186031024** Collected: 01/09/14 16:15 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/14/14 23:22	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/14/14 23:22	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/14/14 23:22	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/14/14 23:22	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/14/14 23:22	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/14/14 23:22	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/14/14 23:22	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/14/14 23:22	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/14/14 23:22	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/14/14 23:22	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/14/14 23:22	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/14/14 23:22	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/14/14 23:22	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/14/14 23:22	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/14/14 23:22	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/14/14 23:22	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		01/14/14 23:22	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/14/14 23:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/14/14 23:22	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/14/14 23:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/14/14 23:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/14/14 23:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 23:22	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/14/14 23:22	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/14/14 23:22	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/14/14 23:22	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/14/14 23:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/14/14 23:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/14/14 23:22	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/14/14 23:22	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/14/14 23:22	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/14/14 23:22	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/14/14 23:22	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/14/14 23:22	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/14/14 23:22	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/14/14 23:22	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/14/14 23:22	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/14/14 23:22	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/14/14 23:22	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/14/14 23:22	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/14/14 23:22	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/14/14 23:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/14/14 23:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/14/14 23:22	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/14/14 23:22	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/14/14 23:22	108-88-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Sample: MB#3 **Lab ID: 92186031024** Collected: 01/09/14 16:15 Received: 01/10/14 11:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/14/14 23:22	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/14/14 23:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/14/14 23:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/14/14 23:22	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/14/14 23:22	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/14/14 23:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/14/14 23:22	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/14/14 23:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/14/14 23:22	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/14/14 23:22	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/14/14 23:22	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/14/14 23:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		01/14/14 23:22	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		01/14/14 23:22	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		01/14/14 23:22	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

QC Batch: MSV/25492 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92186031003, 92186031005, 92186031007, 92186031009, 92186031011, 92186031012, 92186031013, 92186031014, 92186031015, 92186031016, 92186031017

METHOD BLANK: 1120744 Matrix: Water
Associated Lab Samples: 92186031003, 92186031005, 92186031007, 92186031009, 92186031011, 92186031012, 92186031013, 92186031014, 92186031015, 92186031016, 92186031017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	01/14/14 15:50	
1,1,1-Trichloroethane	ug/L	ND	1.0	01/14/14 15:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	01/14/14 15:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	01/14/14 15:50	
1,1-Dichloroethane	ug/L	ND	1.0	01/14/14 15:50	
1,1-Dichloroethene	ug/L	ND	1.0	01/14/14 15:50	
1,1-Dichloropropene	ug/L	ND	1.0	01/14/14 15:50	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	01/14/14 15:50	
1,2,3-Trichloropropane	ug/L	ND	1.0	01/14/14 15:50	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	01/14/14 15:50	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	01/14/14 15:50	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	01/14/14 15:50	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	01/14/14 15:50	
1,2-Dichlorobenzene	ug/L	ND	1.0	01/14/14 15:50	
1,2-Dichloroethane	ug/L	ND	1.0	01/14/14 15:50	
1,2-Dichloropropane	ug/L	ND	1.0	01/14/14 15:50	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	01/14/14 15:50	
1,3-Dichlorobenzene	ug/L	ND	1.0	01/14/14 15:50	
1,3-Dichloropropane	ug/L	ND	1.0	01/14/14 15:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	01/14/14 15:50	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	01/14/14 15:50	
2,2-Dichloropropane	ug/L	ND	1.0	01/14/14 15:50	
2-Chlorotoluene	ug/L	ND	1.0	01/14/14 15:50	
4-Chlorotoluene	ug/L	ND	1.0	01/14/14 15:50	
Benzene	ug/L	ND	1.0	01/14/14 15:50	
Bromobenzene	ug/L	ND	1.0	01/14/14 15:50	
Bromochloromethane	ug/L	ND	1.0	01/14/14 15:50	
Bromodichloromethane	ug/L	ND	1.0	01/14/14 15:50	
Bromoform	ug/L	ND	1.0	01/14/14 15:50	
Bromomethane	ug/L	ND	2.0	01/14/14 15:50	
Carbon tetrachloride	ug/L	ND	1.0	01/14/14 15:50	
Chlorobenzene	ug/L	ND	1.0	01/14/14 15:50	
Chloroethane	ug/L	ND	1.0	01/14/14 15:50	
Chloroform	ug/L	ND	1.0	01/14/14 15:50	
Chloromethane	ug/L	ND	1.0	01/14/14 15:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	01/14/14 15:50	
Dibromochloromethane	ug/L	ND	1.0	01/14/14 15:50	
Dibromomethane	ug/L	ND	1.0	01/14/14 15:50	
Dichlorodifluoromethane	ug/L	ND	1.0	01/14/14 15:50	
Ethylbenzene	ug/L	ND	1.0	01/14/14 15:50	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	01/14/14 15:50	

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

METHOD BLANK: 1120744 Matrix: Water

Associated Lab Samples: 92186031003, 92186031005, 92186031007, 92186031009, 92186031011, 92186031012, 92186031013, 92186031014, 92186031015, 92186031016, 92186031017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	1.0	01/14/14 15:50	
m&p-Xylene	ug/L	ND	2.0	01/14/14 15:50	
Methylene Chloride	ug/L	ND	2.0	01/14/14 15:50	
n-Butylbenzene	ug/L	ND	1.0	01/14/14 15:50	
n-Propylbenzene	ug/L	ND	1.0	01/14/14 15:50	
Naphthalene	ug/L	ND	1.0	01/14/14 15:50	
o-Xylene	ug/L	ND	1.0	01/14/14 15:50	
p-Isopropyltoluene	ug/L	ND	1.0	01/14/14 15:50	
sec-Butylbenzene	ug/L	ND	1.0	01/14/14 15:50	
Styrene	ug/L	ND	1.0	01/14/14 15:50	
tert-Butylbenzene	ug/L	ND	1.0	01/14/14 15:50	
Tetrachloroethene	ug/L	ND	1.0	01/14/14 15:50	
Toluene	ug/L	ND	1.0	01/14/14 15:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	01/14/14 15:50	
Trichloroethene	ug/L	ND	1.0	01/14/14 15:50	
Trichlorofluoromethane	ug/L	ND	1.0	01/14/14 15:50	
Vinyl chloride	ug/L	ND	1.0	01/14/14 15:50	
1,2-Dichloroethane-d4 (S)	%	96	70-130	01/14/14 15:50	
4-Bromofluorobenzene (S)	%	104	70-130	01/14/14 15:50	
Toluene-d8 (S)	%	109	70-130	01/14/14 15:50	

LABORATORY CONTROL SAMPLE: 1120745

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.5	95	70-130	
1,1,1-Trichloroethane	ug/L	50	47.8	96	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	46.4	93	70-130	
1,1,2-Trichloroethane	ug/L	50	48.3	97	70-130	
1,1-Dichloroethane	ug/L	50	46.1	92	70-130	
1,1-Dichloroethene	ug/L	50	47.0	94	70-132	
1,1-Dichloropropene	ug/L	50	51.5	103	70-130	
1,2,3-Trichlorobenzene	ug/L	50	47.0	94	70-135	
1,2,3-Trichloropropane	ug/L	50	45.7	91	70-130	
1,2,4-Trichlorobenzene	ug/L	50	47.2	94	70-134	
1,2,4-Trimethylbenzene	ug/L	50	46.8	94	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.2	96	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.8	98	70-130	
1,2-Dichlorobenzene	ug/L	50	46.2	92	70-130	
1,2-Dichloroethane	ug/L	50	45.7	91	70-130	
1,2-Dichloropropane	ug/L	50	49.7	99	70-130	
1,3,5-Trimethylbenzene	ug/L	50	46.9	94	70-130	
1,3-Dichlorobenzene	ug/L	50	44.2	88	70-130	
1,3-Dichloropropane	ug/L	50	48.1	96	70-130	
1,4-Dichlorobenzene	ug/L	50	45.6	91	70-130	

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

LABORATORY CONTROL SAMPLE: 1120745

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	1420	142	70-130	L3
2,2-Dichloropropane	ug/L	50	53.6	107	58-145	
2-Chlorotoluene	ug/L	50	43.0	86	70-130	
4-Chlorotoluene	ug/L	50	45.3	91	70-130	
Benzene	ug/L	50	49.9	100	70-130	
Bromobenzene	ug/L	50	46.4	93	70-130	
Bromochloromethane	ug/L	50	43.5	87	70-130	
Bromodichloromethane	ug/L	50	48.3	97	70-130	
Bromoform	ug/L	50	50.0	100	70-130	
Bromomethane	ug/L	50	49.2	98	54-130	
Carbon tetrachloride	ug/L	50	48.6	97	70-132	
Chlorobenzene	ug/L	50	46.1	92	70-130	
Chloroethane	ug/L	50	40.7	81	64-134	
Chloroform	ug/L	50	45.7	91	70-130	
Chloromethane	ug/L	50	55.6	111	64-130	
cis-1,2-Dichloroethene	ug/L	50	46.2	92	70-131	
Dibromochloromethane	ug/L	50	49.6	99	70-130	
Dibromomethane	ug/L	50	48.2	96	70-131	
Dichlorodifluoromethane	ug/L	50	52.9	106	56-130	
Ethylbenzene	ug/L	50	45.9	92	70-130	
Hexachloro-1,3-butadiene	ug/L	50	47.2	94	70-130	
Isopropylbenzene (Cumene)	ug/L	50	47.1	94	70-130	
m&p-Xylene	ug/L	100	109	109	70-130	
Methylene Chloride	ug/L	50	50.3	101	63-130	
n-Butylbenzene	ug/L	50	49.0	98	70-130	
n-Propylbenzene	ug/L	50	46.3	93	70-130	
Naphthalene	ug/L	50	47.4	95	70-138	
o-Xylene	ug/L	50	47.4	95	70-130	
p-Isopropyltoluene	ug/L	50	46.8	94	70-130	
sec-Butylbenzene	ug/L	50	46.0	92	70-130	
Styrene	ug/L	50	47.5	95	70-130	
tert-Butylbenzene	ug/L	50	45.9	92	70-130	
Tetrachloroethene	ug/L	50	49.1	98	70-130	
Toluene	ug/L	50	47.7	95	70-130	
trans-1,2-Dichloroethene	ug/L	50	45.7	91	70-130	
Trichloroethene	ug/L	50	48.0	96	70-130	
Trichlorofluoromethane	ug/L	50	43.0	86	62-133	
Vinyl chloride	ug/L	50	55.1	110	69-130	
1,2-Dichloroethane-d4 (S)	%			104	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1120746 1120747

Parameter	Units	92186031014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	55.6	59.9	110	119	70-166	8	30	

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1120746 1120747

Parameter	Units	92186031014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	53.9	55.8	108	112	70-148	3	30	
Chlorobenzene	ug/L	ND	50	50	48.7	49.4	97	99	70-146	1	30	
Toluene	ug/L	ND	50	50	50.5	48.0	101	96	70-155	5	30	
Trichloroethene	ug/L	ND	50	50	51.7	52.9	103	106	69-151	2	30	
1,2-Dichloroethane-d4 (S)	%						100	108	70-130			
4-Bromofluorobenzene (S)	%						98	109	70-130			
Toluene-d8 (S)	%						102	95	70-130			

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

QC Batch: MSV/25493 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92186031018, 92186031019, 92186031020, 92186031021, 92186031022, 92186031023, 92186031024

METHOD BLANK: 1120750 Matrix: Water
Associated Lab Samples: 92186031018, 92186031019, 92186031020, 92186031021, 92186031022, 92186031023, 92186031024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	01/14/14 16:06	
1,1,1-Trichloroethane	ug/L	ND	1.0	01/14/14 16:06	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	01/14/14 16:06	
1,1,2-Trichloroethane	ug/L	ND	1.0	01/14/14 16:06	
1,1-Dichloroethane	ug/L	ND	1.0	01/14/14 16:06	
1,1-Dichloroethene	ug/L	ND	1.0	01/14/14 16:06	
1,1-Dichloropropene	ug/L	ND	1.0	01/14/14 16:06	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	01/14/14 16:06	
1,2,3-Trichloropropane	ug/L	ND	1.0	01/14/14 16:06	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	01/14/14 16:06	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	01/14/14 16:06	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	01/14/14 16:06	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	01/14/14 16:06	
1,2-Dichlorobenzene	ug/L	ND	1.0	01/14/14 16:06	
1,2-Dichloroethane	ug/L	ND	1.0	01/14/14 16:06	
1,2-Dichloropropane	ug/L	ND	1.0	01/14/14 16:06	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	01/14/14 16:06	
1,3-Dichlorobenzene	ug/L	ND	1.0	01/14/14 16:06	
1,3-Dichloropropane	ug/L	ND	1.0	01/14/14 16:06	
1,4-Dichlorobenzene	ug/L	ND	1.0	01/14/14 16:06	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	01/14/14 16:06	
2,2-Dichloropropane	ug/L	ND	1.0	01/14/14 16:06	
2-Chlorotoluene	ug/L	ND	1.0	01/14/14 16:06	
4-Chlorotoluene	ug/L	ND	1.0	01/14/14 16:06	
Benzene	ug/L	ND	1.0	01/14/14 16:06	
Bromobenzene	ug/L	ND	1.0	01/14/14 16:06	
Bromochloromethane	ug/L	ND	1.0	01/14/14 16:06	
Bromodichloromethane	ug/L	ND	1.0	01/14/14 16:06	
Bromoform	ug/L	ND	1.0	01/14/14 16:06	
Bromomethane	ug/L	ND	2.0	01/14/14 16:06	
Carbon tetrachloride	ug/L	ND	1.0	01/14/14 16:06	
Chlorobenzene	ug/L	ND	1.0	01/14/14 16:06	
Chloroethane	ug/L	ND	1.0	01/14/14 16:06	
Chloroform	ug/L	ND	1.0	01/14/14 16:06	
Chloromethane	ug/L	ND	1.0	01/14/14 16:06	
cis-1,2-Dichloroethene	ug/L	ND	1.0	01/14/14 16:06	
Dibromochloromethane	ug/L	ND	1.0	01/14/14 16:06	
Dibromomethane	ug/L	ND	1.0	01/14/14 16:06	
Dichlorodifluoromethane	ug/L	ND	1.0	01/14/14 16:06	
Ethylbenzene	ug/L	ND	1.0	01/14/14 16:06	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	01/14/14 16:06	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	01/14/14 16:06	
m&p-Xylene	ug/L	ND	2.0	01/14/14 16:06	

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

METHOD BLANK: 1120750 Matrix: Water
Associated Lab Samples: 92186031018, 92186031019, 92186031020, 92186031021, 92186031022, 92186031023, 92186031024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methylene Chloride	ug/L	ND	2.0	01/14/14 16:06	
n-Butylbenzene	ug/L	ND	1.0	01/14/14 16:06	
n-Propylbenzene	ug/L	ND	1.0	01/14/14 16:06	
Naphthalene	ug/L	ND	1.0	01/14/14 16:06	
o-Xylene	ug/L	ND	1.0	01/14/14 16:06	
p-Isopropyltoluene	ug/L	ND	1.0	01/14/14 16:06	
sec-Butylbenzene	ug/L	ND	1.0	01/14/14 16:06	
Styrene	ug/L	ND	1.0	01/14/14 16:06	
tert-Butylbenzene	ug/L	ND	1.0	01/14/14 16:06	
Tetrachloroethene	ug/L	ND	1.0	01/14/14 16:06	
Toluene	ug/L	ND	1.0	01/14/14 16:06	
trans-1,2-Dichloroethene	ug/L	ND	1.0	01/14/14 16:06	
Trichloroethene	ug/L	ND	1.0	01/14/14 16:06	
Trichlorofluoromethane	ug/L	ND	1.0	01/14/14 16:06	
Vinyl chloride	ug/L	ND	1.0	01/14/14 16:06	
1,2-Dichloroethane-d4 (S)	%	93	70-130	01/14/14 16:06	
4-Bromofluorobenzene (S)	%	101	70-130	01/14/14 16:06	
Toluene-d8 (S)	%	100	70-130	01/14/14 16:06	

LABORATORY CONTROL SAMPLE: 1120751

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.7	95	70-130	
1,1,1-Trichloroethane	ug/L	50	48.1	96	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.9	92	70-130	
1,1,2-Trichloroethane	ug/L	50	47.6	95	70-130	
1,1-Dichloroethane	ug/L	50	46.0	92	70-130	
1,1-Dichloroethene	ug/L	50	48.3	97	70-132	
1,1-Dichloropropene	ug/L	50	51.7	103	70-130	
1,2,3-Trichlorobenzene	ug/L	50	48.0	96	70-135	
1,2,3-Trichloropropane	ug/L	50	45.4	91	70-130	
1,2,4-Trichlorobenzene	ug/L	50	48.6	97	70-134	
1,2,4-Trimethylbenzene	ug/L	50	47.9	96	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.6	97	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.5	97	70-130	
1,2-Dichlorobenzene	ug/L	50	46.6	93	70-130	
1,2-Dichloroethane	ug/L	50	45.2	90	70-130	
1,2-Dichloropropane	ug/L	50	49.0	98	70-130	
1,3,5-Trimethylbenzene	ug/L	50	47.4	95	70-130	
1,3-Dichlorobenzene	ug/L	50	44.4	89	70-130	
1,3-Dichloropropane	ug/L	50	48.2	96	70-130	
1,4-Dichlorobenzene	ug/L	50	45.6	91	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1460	146	70-130	L0
2,2-Dichloropropane	ug/L	50	52.3	105	58-145	
2-Chlorotoluene	ug/L	50	43.2	86	70-130	

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

LABORATORY CONTROL SAMPLE: 1120751

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/L	50	45.5	91	70-130	
Benzene	ug/L	50	48.9	98	70-130	
Bromobenzene	ug/L	50	46.1	92	70-130	
Bromochloromethane	ug/L	50	41.8	84	70-130	
Bromodichloromethane	ug/L	50	47.8	96	70-130	
Bromoform	ug/L	50	49.9	100	70-130	
Bromomethane	ug/L	50	47.1	94	54-130	
Carbon tetrachloride	ug/L	50	48.6	97	70-132	
Chlorobenzene	ug/L	50	46.1	92	70-130	
Chloroethane	ug/L	50	43.6	87	64-134	
Chloroform	ug/L	50	45.1	90	70-130	
Chloromethane	ug/L	50	53.4	107	64-130	
cis-1,2-Dichloroethene	ug/L	50	45.6	91	70-131	
Dibromochloromethane	ug/L	50	50.0	100	70-130	
Dibromomethane	ug/L	50	47.2	94	70-131	
Dichlorodifluoromethane	ug/L	50	52.5	105	56-130	
Ethylbenzene	ug/L	50	45.5	91	70-130	
Hexachloro-1,3-butadiene	ug/L	50	49.1	98	70-130	
Isopropylbenzene (Cumene)	ug/L	50	46.8	94	70-130	
m&p-Xylene	ug/L	100	109	109	70-130	
Methylene Chloride	ug/L	50	49.4	99	63-130	
n-Butylbenzene	ug/L	50	50.1	100	70-130	
n-Propylbenzene	ug/L	50	47.0	94	70-130	
Naphthalene	ug/L	50	48.1	96	70-138	
o-Xylene	ug/L	50	47.5	95	70-130	
p-Isopropyltoluene	ug/L	50	47.7	95	70-130	
sec-Butylbenzene	ug/L	50	47.0	94	70-130	
Styrene	ug/L	50	47.6	95	70-130	
tert-Butylbenzene	ug/L	50	47.0	94	70-130	
Tetrachloroethene	ug/L	50	49.0	98	70-130	
Toluene	ug/L	50	46.8	94	70-130	
trans-1,2-Dichloroethene	ug/L	50	44.6	89	70-130	
Trichloroethene	ug/L	50	48.0	96	70-130	
Trichlorofluoromethane	ug/L	50	52.5	105	62-133	
Vinyl chloride	ug/L	50	53.3	107	69-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1121566 1121567

Parameter	Units	92186031022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	45.6	45.6	91	91	70-166	0	30	
Benzene	ug/L	ND	50	50	58.5	54.1	117	108	70-148	8	30	
Chlorobenzene	ug/L	ND	50	50	52.8	53.2	106	106	70-146	1	30	
Toluene	ug/L	ND	50	50	53.2	62.9	106	126	70-155	17	30	

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1121566 1121567

Parameter	Units	92186031022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Trichloroethene	ug/L	ND	50	50	55.9	54.6	112	109	69-151	2	30	
1,2-Dichloroethane-d4 (S)	%						98	95	70-130			
4-Bromofluorobenzene (S)	%						103	104	70-130			
Toluene-d8 (S)	%						101	120	70-130			

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

QC Batch: MSV/25515 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92186031002, 92186031004, 92186031006, 92186031008, 92186031010

METHOD BLANK: 1121695 Matrix: Water
Associated Lab Samples: 92186031002, 92186031004, 92186031006, 92186031008, 92186031010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	01/15/14 17:28	
1,1,1-Trichloroethane	ug/L	ND	1.0	01/15/14 17:28	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	01/15/14 17:28	
1,1,2-Trichloroethane	ug/L	ND	1.0	01/15/14 17:28	
1,1-Dichloroethane	ug/L	ND	1.0	01/15/14 17:28	
1,1-Dichloroethene	ug/L	ND	1.0	01/15/14 17:28	
1,1-Dichloropropene	ug/L	ND	1.0	01/15/14 17:28	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	01/15/14 17:28	
1,2,3-Trichloropropane	ug/L	ND	1.0	01/15/14 17:28	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	01/15/14 17:28	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	01/15/14 17:28	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	01/15/14 17:28	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	01/15/14 17:28	
1,2-Dichlorobenzene	ug/L	ND	1.0	01/15/14 17:28	
1,2-Dichloroethane	ug/L	ND	1.0	01/15/14 17:28	
1,2-Dichloropropane	ug/L	ND	1.0	01/15/14 17:28	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	01/15/14 17:28	
1,3-Dichlorobenzene	ug/L	ND	1.0	01/15/14 17:28	
1,3-Dichloropropane	ug/L	ND	1.0	01/15/14 17:28	
1,4-Dichlorobenzene	ug/L	ND	1.0	01/15/14 17:28	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	01/15/14 17:28	
2,2-Dichloropropane	ug/L	ND	1.0	01/15/14 17:28	
2-Chlorotoluene	ug/L	ND	1.0	01/15/14 17:28	
4-Chlorotoluene	ug/L	ND	1.0	01/15/14 17:28	
Benzene	ug/L	ND	1.0	01/15/14 17:28	
Bromobenzene	ug/L	ND	1.0	01/15/14 17:28	
Bromochloromethane	ug/L	ND	1.0	01/15/14 17:28	
Bromodichloromethane	ug/L	ND	1.0	01/15/14 17:28	
Bromoform	ug/L	ND	1.0	01/15/14 17:28	
Bromomethane	ug/L	ND	2.0	01/15/14 17:28	
Carbon tetrachloride	ug/L	ND	1.0	01/15/14 17:28	
Chlorobenzene	ug/L	ND	1.0	01/15/14 17:28	
Chloroethane	ug/L	ND	1.0	01/15/14 17:28	
Chloroform	ug/L	ND	1.0	01/15/14 17:28	
Chloromethane	ug/L	ND	1.0	01/15/14 17:28	
cis-1,2-Dichloroethene	ug/L	ND	1.0	01/15/14 17:28	
Dibromochloromethane	ug/L	ND	1.0	01/15/14 17:28	
Dibromomethane	ug/L	ND	1.0	01/15/14 17:28	
Dichlorodifluoromethane	ug/L	ND	1.0	01/15/14 17:28	
Ethylbenzene	ug/L	ND	1.0	01/15/14 17:28	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	01/15/14 17:28	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	01/15/14 17:28	
m&p-Xylene	ug/L	ND	2.0	01/15/14 17:28	

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

METHOD BLANK: 1121695 Matrix: Water
Associated Lab Samples: 92186031002, 92186031004, 92186031006, 92186031008, 92186031010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methylene Chloride	ug/L	ND	2.0	01/15/14 17:28	
n-Butylbenzene	ug/L	ND	1.0	01/15/14 17:28	
n-Propylbenzene	ug/L	ND	1.0	01/15/14 17:28	
Naphthalene	ug/L	ND	1.0	01/15/14 17:28	
o-Xylene	ug/L	ND	1.0	01/15/14 17:28	
p-Isopropyltoluene	ug/L	ND	1.0	01/15/14 17:28	
sec-Butylbenzene	ug/L	ND	1.0	01/15/14 17:28	
Styrene	ug/L	ND	1.0	01/15/14 17:28	
tert-Butylbenzene	ug/L	ND	1.0	01/15/14 17:28	
Tetrachloroethene	ug/L	ND	1.0	01/15/14 17:28	
Toluene	ug/L	ND	1.0	01/15/14 17:28	
trans-1,2-Dichloroethene	ug/L	ND	1.0	01/15/14 17:28	
Trichloroethene	ug/L	ND	1.0	01/15/14 17:28	
Trichlorofluoromethane	ug/L	ND	1.0	01/15/14 17:28	
Vinyl chloride	ug/L	ND	1.0	01/15/14 17:28	
1,2-Dichloroethane-d4 (S)	%	93	70-130	01/15/14 17:28	
4-Bromofluorobenzene (S)	%	99	70-130	01/15/14 17:28	
Toluene-d8 (S)	%	105	70-130	01/15/14 17:28	

LABORATORY CONTROL SAMPLE: 1121696

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	45.7	91	70-130	
1,1,1-Trichloroethane	ug/L	50	46.6	93	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.3	91	70-130	
1,1,2-Trichloroethane	ug/L	50	47.9	96	70-130	
1,1-Dichloroethane	ug/L	50	45.2	90	70-130	
1,1-Dichloroethene	ug/L	50	43.8	88	70-132	
1,1-Dichloropropene	ug/L	50	49.3	99	70-130	
1,2,3-Trichlorobenzene	ug/L	50	47.3	95	70-135	
1,2,3-Trichloropropane	ug/L	50	43.8	88	70-130	
1,2,4-Trichlorobenzene	ug/L	50	47.7	95	70-134	
1,2,4-Trimethylbenzene	ug/L	50	47.0	94	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.6	95	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.2	96	70-130	
1,2-Dichlorobenzene	ug/L	50	46.3	93	70-130	
1,2-Dichloroethane	ug/L	50	44.1	88	70-130	
1,2-Dichloropropane	ug/L	50	49.3	99	70-130	
1,3,5-Trimethylbenzene	ug/L	50	46.6	93	70-130	
1,3-Dichlorobenzene	ug/L	50	43.9	88	70-130	
1,3-Dichloropropane	ug/L	50	48.0	96	70-130	
1,4-Dichlorobenzene	ug/L	50	45.6	91	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1230	123	70-130	
2,2-Dichloropropane	ug/L	50	49.5	99	58-145	
2-Chlorotoluene	ug/L	50	43.1	86	70-130	

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

LABORATORY CONTROL SAMPLE: 1121696

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/L	50	45.4	91	70-130	
Benzene	ug/L	50	48.4	97	70-130	
Bromobenzene	ug/L	50	46.5	93	70-130	
Bromochloromethane	ug/L	50	43.6	87	70-130	
Bromodichloromethane	ug/L	50	47.6	95	70-130	
Bromoform	ug/L	50	47.6	95	70-130	
Bromomethane	ug/L	50	47.7	95	54-130	
Carbon tetrachloride	ug/L	50	44.6	89	70-132	
Chlorobenzene	ug/L	50	44.3	89	70-130	
Chloroethane	ug/L	50	41.0	82	64-134	
Chloroform	ug/L	50	43.8	88	70-130	
Chloromethane	ug/L	50	57.4	115	64-130	
cis-1,2-Dichloroethene	ug/L	50	46.2	92	70-131	
Dibromochloromethane	ug/L	50	48.0	96	70-130	
Dibromomethane	ug/L	50	47.3	95	70-131	
Dichlorodifluoromethane	ug/L	50	49.8	100	56-130	
Ethylbenzene	ug/L	50	45.0	90	70-130	
Hexachloro-1,3-butadiene	ug/L	50	49.7	99	70-130	
Isopropylbenzene (Cumene)	ug/L	50	46.3	93	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methylene Chloride	ug/L	50	52.1	104	63-130	
n-Butylbenzene	ug/L	50	50.4	101	70-130	
n-Propylbenzene	ug/L	50	46.7	93	70-130	
Naphthalene	ug/L	50	47.5	95	70-138	
o-Xylene	ug/L	50	46.9	94	70-130	
p-Isopropyltoluene	ug/L	50	47.6	95	70-130	
sec-Butylbenzene	ug/L	50	46.7	93	70-130	
Styrene	ug/L	50	47.0	94	70-130	
tert-Butylbenzene	ug/L	50	46.0	92	70-130	
Tetrachloroethene	ug/L	50	45.8	92	70-130	
Toluene	ug/L	50	45.4	91	70-130	
trans-1,2-Dichloroethene	ug/L	50	44.8	90	70-130	
Trichloroethene	ug/L	50	45.9	92	70-130	
Trichlorofluoromethane	ug/L	50	51.3	103	62-133	
Vinyl chloride	ug/L	50	55.2	110	69-130	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1122446 1122447

Parameter	Units	92186031002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	50.8	45.6	101	91	70-166	11	30	
Benzene	ug/L	ND	50	50	58.1	56.6	116	113	70-148	3	30	
Chlorobenzene	ug/L	ND	50	50	51.5	51.4	103	103	70-146	0	30	
Toluene	ug/L	ND	50	50	54.1	52.5	108	105	70-155	3	30	

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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1122446 1122447

Parameter	Units	92186031002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Trichloroethene	ug/L	1.2	50	50	59.1	58.1	116	114	69-151	2	30	
1,2-Dichloroethane-d4 (S)	%						101	97	70-130			
4-Bromofluorobenzene (S)	%						104	102	70-130			
Toluene-d8 (S)	%						106	102	70-130			

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205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

QC Batch: MSV/25530 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92186031003, 92186031004, 92186031005, 92186031006

METHOD BLANK: 1122500 Matrix: Water
Associated Lab Samples: 92186031003, 92186031004, 92186031005, 92186031006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	01/16/14 16:14	
1,2-Dichloroethane-d4 (S)	%	101	50-150	01/16/14 16:14	
Toluene-d8 (S)	%	103	50-150	01/16/14 16:14	

LABORATORY CONTROL SAMPLE: 1122501

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	17.7	88	50-150	
1,2-Dichloroethane-d4 (S)	%			101	50-150	
Toluene-d8 (S)	%			101	50-150	

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Huntersville, NC 28078
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QUALITY CONTROL DATA

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

QC Batch: MSV/25536 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92186031007, 92186031008, 92186031009, 92186031010, 92186031013

METHOD BLANK: 1123180 Matrix: Water
Associated Lab Samples: 92186031007, 92186031008, 92186031009, 92186031010, 92186031013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	01/17/14 10:55	
1,2-Dichloroethane-d4 (S)	%	91	50-150	01/17/14 10:55	
Toluene-d8 (S)	%	103	50-150	01/17/14 10:55	

LABORATORY CONTROL SAMPLE: 1123181

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	22.8	114	50-150	
1,2-Dichloroethane-d4 (S)	%			92	50-150	
Toluene-d8 (S)	%			104	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1123182 1123183

Parameter	Units	92186031007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	17.2	23.7	82	114	50-150	32	30	R1
1,2-Dichloroethane-d4 (S)	%						91	89	50-150		150	
Toluene-d8 (S)	%						103	103	50-150		150	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TK Louisville 6122090322.401
Pace Project No.: 92186031

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92186031002	**MW-10**	EPA 8260	MSV/25515		
92186031003	**MW-5**	EPA 8260	MSV/25492		
92186031004	**DUP-1**	EPA 8260	MSV/25515		
92186031005	**MW-25**	EPA 8260	MSV/25492		
92186031006	**MW-27**	EPA 8260	MSV/25515		
92186031007	**MW-14**	EPA 8260	MSV/25492		
92186031008	**MW-28**	EPA 8260	MSV/25515		
92186031009	**MW-19**	EPA 8260	MSV/25492		
92186031010	**EB-1**	EPA 8260	MSV/25515		
92186031011	**MW-3**	EPA 8260	MSV/25492		
92186031012	**MW-22**	EPA 8260	MSV/25492		
92186031013	**MW-20**	EPA 8260	MSV/25492		
92186031014	**Manson Branch #2**	EPA 8260	MSV/25492		
92186031015	**Seep B**	EPA 8260	MSV/25492		
92186031016	**Seep L**	EPA 8260	MSV/25492		
92186031017	**Seep I**	EPA 8260	MSV/25492		
92186031018	**Seep H**	EPA 8260	MSV/25493		
92186031019	**Seep G**	EPA 8260	MSV/25493		
92186031020	**Seep 2**	EPA 8260	MSV/25493		
92186031021	**MB#5**	EPA 8260	MSV/25493		
92186031022	**MB#15**	EPA 8260	MSV/25493		
92186031023	**MB#16**	EPA 8260	MSV/25493		
92186031024	**MB#3**	EPA 8260	MSV/25493		
92186031003	**MW-5**	EPA 8260B Mod.	MSV/25530		
92186031004	**DUP-1**	EPA 8260B Mod.	MSV/25530		
92186031005	**MW-25**	EPA 8260B Mod.	MSV/25530		
92186031006	**MW-27**	EPA 8260B Mod.	MSV/25530		
92186031007	**MW-14**	EPA 8260B Mod.	MSV/25536		
92186031008	**MW-28**	EPA 8260B Mod.	MSV/25536		
92186031009	**MW-19**	EPA 8260B Mod.	MSV/25536		
92186031010	**EB-1**	EPA 8260B Mod.	MSV/25536		
92186031013	**MW-20**	EPA 8260B Mod.	MSV/25536		

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Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: December 10, 2013 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.13**	Issuing Authority: Pace Huntersville Quality Office

Client Name: AMEC

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other_____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☑ Other Ziplock

Thermometer Used: IR Gun T1102 (T1301) **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1102**: No Correction **T1301**: No Correction

Corrected Cooler Temp.: 5.9 °C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Optional
Proj. Due Date:
Proj. Name:

Date and Initials of person examining contents: AD 1/10/14

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10. TB broken in Lab
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:_____	☐Yes ☑No ☐N/A	12. Chain #2 Sample #2 not here
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☑Yes ☐No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Rhonda Quinn Date/Time: _____

Comments/ Resolution: Rhonda informed to follow Table I in the scope of work. Per the table, MW-3, MW-10, & MW-22 does not need 8260 Sim 1,4-Dioxane. PM informed of broken Trip Blank. KG.

SCURF Review: KG Date: 1/10/14

SRF Review: KG Date: 1/13/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92186031

92186031

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 3

1691505

Section A Required Client Information:

Company:	AMEC
Address:	1075 Big Shanty Rd Ste 100 Kennesaw, GA 30144
Email To:	Rhonda Quinn
Phone:	770-421-3400
Fax:	770-421-~~38~~ 3486
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Rhonda Quinn
Copy To:	Greg Wrenn
Purchase Order No.:	
Project Name:	TK Louisville
Project Number:	6122090322.401

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	VOC list, 1,4-Dioxane	1,4-Dioxane (SIM)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	TB-01	WT	G	~~1/7/14~~		1/7/14	1600		2				X						2			92186031001
2	MW-10	WT	G			1/7/14	1632		6				X						3	3		002
3	MW-5	WT	G			1/8/14	1150		6				X						3	3		003
4	DUP-1	WT	G			1/8/14	1200		6				X						3	3		004
5	MW-25	WT	G				1602		6				X						3	3		005
6	MW-27	WT	G				1636		6				X						3	3		006
7	MW-28	WT	G				1716		6				X						3	3		008 ~~007~~
8	MW-14	WT	G				1410		6				X						3	3		007 ~~008~~
9	MW-19	WT	G				1625		6				X						3	3		009
10	EB-1	WT	G			1/9/14	0945		6				X						3	3		010
11	MW-3	WT	G			1/9/14	1138		6				X						3	3		011
12	MW-22	WT	G			1/9/14	1120		6				X						3	3		012

AC 1-10-14

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Daniel Howard / AMEC	1/9/14	2000	[signature] / Pace	1/10/14	11:20	Sfd.	Y	~~AH~~ 1/10/13	~~Y~~ 1/10/13 N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard / Ever Guillen

SIGNATURE of SAMPLER: D Howard / E Guillen

DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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Page: 2 of 3

1664888

Section A Required Client Information:

Company:	AMEC
Address:	1075 Big Shanty Rd Ste 100 Kennesaw, GA 30144
Email To:	Rhonda Quinn
Phone:	770-421-3400 Fax: 770-421-3486
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Rhonda Quinn
Copy To:	Greg Wrenn
Purchase Order No.:	
Project Name:	TK Louisville
Project Number:	61220903 22.401

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N	VOC list, 1,4 Dioxane	1,4-Dioxane (SIM)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-20	WT	G			1/9/14	1445		G				X						3	3		92186031-013
2	MW-22	WT	G				1120		6				X						3	3		
3	MansonBranch #2	WT	G				1340		3				X						3			014
4	Seep B	WT	G				1430		3				X						3			015
5	Seep L	WT	G				1530		3				X						3			016
6	Seep I	WT	G				1450		3				X						3			017
7	Seep H	WT	G				1355		3				X						3			018
8	Seep G	WT	G				1415		3				X						3			019
9	Seep #2	WT	G				1435		3				X						3			020
10	MB#5	WT	G				1602		3				X						3			021
11	MB#15	WT	G				1608		3				X						3			022
12	MB#16	WT	G				1555		3				X						3			023

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Daniel Howard/AMEC	1/9/14	2000	[illegible]/Pace	1/10/14	11:20	SA	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: D Howard / E Guillen

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

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Page: 3 of 3

1691501

Section A Required Client Information:

Company:	AMEC
Address:	1075 Big Shanty Rd Ste 100 Kennesaw, GA 30144
Email To:	Rhonda Quinn
Phone:	770-421-3400
Fax:	770-421-3486
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Rhonda Quinn
Copy To:	Greg Wrenn
Purchase Order No.:	
Project Name:	TK Louisville
Project Number:	612209322.401

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: VOC, 1,4-Dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MB # 3	WT	G			1/9/14	1615		3				X					Y	3		92186031-024
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Daniel Howard / AMEC	1/9/14	2000	[illegible]	1/10/14	~~1130~~ 1120	SA	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: DHoward / EGuillen

SIGNATURE of SAMPLER: D Howard

DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Georgia Department of Natural Resources

Environmental Protection Division
2 Martin Luther King Jr. Drive SE, Suite 1152 East Tower, Atlanta, Georgia 30334-9000
Judson H. Turner, Director
(404) 656-4713
FAX: (404) 651-5778

25 June 2013

Laura Whittles, Quality Analyst
Pace Analytical Services, Inc. - Huntersville
9800 Kincey Ave Suite 100
Huntersville NC 28078 Via e-mail: laura.whittles@pacelabs.com

RE: Laboratory Approval

Dear Ms. Whittles:

I have received your June 20, 2012 communication requesting approval of Pace Analytical Services to perform laboratory analytical work in Georgia. Please note that the Environmental Protection Division does not accredit or certify commercial laboratories (other than for drinking water) or issue certification, but rather we require commercial environmental laboratories to be approved under our Rules for Commercial Environmental Laboratories. You provided documentation that your laboratory is accredited (certificate #2173) by the Commonwealth of Virginia, Division of Consolidated Laboratory Services (hereinafter, "Virginia"), in accordance with NELAP. The accreditation is in the categories of Environmental Analyses for non-potable water and for solid and chemical materials. Please be aware that since Virginia has accredited you for Drinking Water analyses, Pace Analytical Services will need to seek reciprocity through Georgia EPD's Drinking Water Program to perform drinking water analytical work for Georgia clients.

After reviewing the information provided in your letter and the attached documentation from Virigina, approval is granted under our Rules for Commercial Environmental Laboratories for those individual parameters within the categories of (1) Non-potable Water and (2) Solid and Chemical Materials, which you are certified by Florida. This approval is valid through June 14, 2014, which is the expiration date of your accreditation. To be approved after that date, your accreditation must be renewed.

I trust this response meets your needs; should you require further information, please do not hesitate to call me at (404) 651-5155.

Sincerely,

Ted V. Jackson, Manager
Drinking Water Program
Georgia Environmental Protection Division

Georgia Department of Natural Resources

Environmental Protection Division
2 Martin Luther King Jr. Drive SE, Suite 1152 East Tower, Atlanta, Georgia 30334-9000
Judson H. Turner, Director
(404) 656-4713
FAX: (404) 651-5778

29 June 2012

C. Barry Johnson, Senior Quality Manager
Pace Analytical Services, Inc. - Asheville
2225 Riverside Drive
Asheville, NC 28804 Via e-mail: barry.johnson@pacelabs.com

RE: Laboratory Approval

Dear Mr. Johnson:

I have received your June 27, 2012 communication requesting approval of Pace Analytical Services to perform laboratory analytical work in Georgia. Please note that the Environmental Protection Division does not accredit or certify commercial laboratories (other than for drinking water) or issue certification, but rather we require commercial environmental laboratories to be approved under our Rules for Commercial Environmental Laboratories. You provided documentation that your laboratory is accredited (certificate #1583) by the Commonwealth of Virginia, Division of Consolidated Laboratory Services (hereinafter, "Virginia"), in accordance with NELAP. The accreditation is in the categories of Environmental Analyses for non-potable water and for solid and chemical materials. Please be aware that since Virginia has accredited you for Drinking Water analyses, Pace Analytical Services will need to seek reciprocity through Georgia EPD's Drinking Water Program to perform drinking water analytical work for Georgia clients.

After reviewing the information provided in your letter and the attached documentation from Virigina, approval is granted under our Rules for Commercial Environmental Laboratories for those individual parameters within the categories of (1) Non-potable Water and (2) Solid and Chemical Materials, which you are certified by Florida. This approval is valid through June 14, 2013, which is the expiration date of your accreditation. To be approved after that date, your accreditation must be renewed.

I trust this response meets your needs; should you require further information, please do not hesitate to call me at (404) 651-5155.

Sincerely,

Ted V. Jackson, Manager
Drinking Water Program
Georgia Environmental Protection Division

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

July 10, 2014

Rhonda Quinn
Amec
1075 Big Shanty Rd
Suite 100
Kennesaw, GA 30144

RE: Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Dear Rhonda Quinn:
Enclosed are the analytical results for sample(s) received by the laboratory on June 27, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

Per client request, report revised 7/10/14 to remove MDL/J-flags from final report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Greg Wrenn, Amec

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CERTIFICATIONS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92207080001	**MB#2**	EPA 8260	GAW	61	PASI-C
92207080002	**SEEP H**	EPA 8260	GAW, MCK	61	PASI-C
92207080003	**SEEP G**	EPA 8260	MCK	61	PASI-C
92207080004	**SEEP #2**	EPA 8260	MCK	61	PASI-C
92207080005	**SEEP L**	EPA 8260	MCK	61	PASI-C
92207080006	**MB#3**	EPA 8260	MCK	61	PASI-C
92207080007	**MB#15**	EPA 8260	MCK	61	PASI-C
92207080008	**MB#5**	EPA 8260	MCK	61	PASI-C
92207080009	**DUP-1**	EPA 8260	GAW, MCK	61	PASI-C
92207080010	**MW-20**	EPA 8260	MCK	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92207080011	**MW-27**	EPA 8260	MCK	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92207080012	**MW-28**	EPA 8260	MCK	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92207080013	**MW-3**	EPA 8260	MCK	61	PASI-C
92207080014	**MW-22**	EPA 8260	GAW	61	PASI-C
92207080015	**MW-5**	EPA 8260	GAW, MCK	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92207080016	**DUP-2**	EPA 8260	GAW, MCK	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92207080017	**MW-14**	EPA 8260	GAW, MCK	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92207080018	**MW-25**	EPA 8260	GAW, MCK	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92207080019	**MW-10**	EPA 8260	GAW	61	PASI-C
92207080020	**MW-19**	EPA 8260	GAW, MCK	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92207080021	**PURGE WATER DRUMS**	EPA 8260	GAW	61	PASI-C
92207080022	**TRIP BLANK**	EPA 8260	MCK	61	PASI-C
92207080023	**EB-1**	EPA 8260	MCK	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C

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PROJECT NARRATIVE

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: AMEC Environment & Infrastructure
Date: July 10, 2014

General Information:
23 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/27381

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 1231885)
  - 1,4-Dioxane (p-Dioxane)
  - Bromomethane
  - Dichlorodifluoromethane

QC Batch: MSV/27405

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 1232541)
  - 1,4-Dioxane (p-Dioxane)

QC Batch: MSV/27448

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 1235024)
  - Dichlorodifluoromethane

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PROJECT NARRATIVE

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: AMEC Environment & Infrastructure
Date: July 10, 2014

QC Batch: MSV/27487

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 1236111)
  - 1,4-Dioxane (p-Dioxane)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/27381

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92207080005

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1235007)
  - 1,4-Dioxane (p-Dioxane)
  - Bromomethane
  - Chloromethane
  - Dichlorodifluoromethane
  - Trichlorofluoromethane
  - Vinyl chloride
  - cis-1,2-Dichloroethene
  - trans-1,2-Dichloroethene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM
Client: AMEC Environment & Infrastructure
Date: July 10, 2014

General Information:
9 samples were analyzed for EPA 8260B Mod.. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MB#2 **Lab ID: 92207080001** Collected: 06/24/14 15:10 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/03/14 09:25	75-25-2	
Bromomethane	**2.0**	ug/L	2.0	1		07/03/14 09:25	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/03/14 09:25	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	108-90-7	
Chloroethane	**1.8**	ug/L	1.0	1		07/03/14 09:25	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/03/14 09:25	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/03/14 09:25	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/03/14 09:25	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	75-71-8	
1,1-Dichloroethane	**4.7**	ug/L	1.0	1		07/03/14 09:25	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	75-35-4	
cis-1,2-Dichloroethene	**12.2**	ug/L	1.0	1		07/03/14 09:25	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/03/14 09:25	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/03/14 09:25	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/03/14 09:25	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	127-18-4	
Toluene	**5.1**	ug/L	1.0	1		07/03/14 09:25	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	87-61-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MB#2 **Lab ID: 92207080001** Collected: 06/24/14 15:10 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 09:25	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	108-67-8	
Vinyl chloride	**31.0**	ug/L	1.0	1		07/03/14 09:25	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/03/14 09:25	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/03/14 09:25	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		07/03/14 09:25	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130	1		07/03/14 09:25	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		07/03/14 09:25	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: SEEP H **Lab ID: 92207080002** Collected: 06/24/14 15:30 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 05:45	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 05:45	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 05:45	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 05:45	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 05:45	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 05:45	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	107-06-2	
1,1-Dichloroethene	**27.9**	ug/L	1.0	1		07/01/14 05:45	75-35-4	
cis-1,2-Dichloroethene	**45.2**	ug/L	1.0	1		07/01/14 05:45	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/01/14 05:45	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 05:45	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 05:45	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: SEEP H **Lab ID: 92207080002** Collected: 06/24/14 15:30 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	120-82-1	
1,1,1-Trichloroethane	**3.5**	ug/L	1.0	1		07/01/14 05:45	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	79-00-5	
Trichloroethene	**185**	ug/L	5.0	5		07/03/14 06:58	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 05:45	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/01/14 05:45	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/01/14 05:45	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/01/14 05:45	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		07/01/14 05:45	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		07/01/14 05:45	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		07/01/14 05:45	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: SEEP G **Lab ID: 92207080003** Collected: 06/24/14 15:55 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 06:03	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 06:03	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 06:03	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 06:03	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 06:03	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 06:03	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	107-06-2	
1,1-Dichloroethene	**1.6**	ug/L	1.0	1		07/01/14 06:03	75-35-4	
cis-1,2-Dichloroethene	**11.0**	ug/L	1.0	1		07/01/14 06:03	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/01/14 06:03	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 06:03	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 06:03	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: SEEP G **Lab ID: 92207080003** Collected: 06/24/14 15:55 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:03	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/01/14 06:03	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/01/14 06:03	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/01/14 06:03	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		07/01/14 06:03	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		07/01/14 06:03	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		07/01/14 06:03	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: SEEP #2 **Lab ID: 92207080004** Collected: 06/24/14 16:20 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 06:21	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 06:21	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 06:21	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 06:21	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 06:21	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 06:21	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	75-35-4	
cis-1,2-Dichloroethene	**7.1**	ug/L	1.0	1		07/01/14 06:21	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/01/14 06:21	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 06:21	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 06:21	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: SEEP #2 **Lab ID: 92207080004** Collected: 06/24/14 16:20 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	79-00-5	
Trichloroethene	**1.7**	ug/L	1.0	1		07/01/14 06:21	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:21	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/01/14 06:21	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/01/14 06:21	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/01/14 06:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		07/01/14 06:21	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		07/01/14 06:21	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		07/01/14 06:21	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: SEEP L **Lab ID: 92207080005** Collected: 06/24/14 17:25 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 06:40	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 06:40	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 06:40	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 06:40	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 06:40	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 06:40	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/01/14 06:40	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 06:40	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 06:40	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: SEEP L **Lab ID: 92207080005** Collected: 06/24/14 17:25 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:40	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/01/14 06:40	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/01/14 06:40	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/01/14 06:40	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		07/01/14 06:40	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		07/01/14 06:40	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		07/01/14 06:40	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MB#3 **Lab ID: 92207080006** Collected: 06/24/14 16:50 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 06:58	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 06:58	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 06:58	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 06:58	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 06:58	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 06:58	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/01/14 06:58	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 06:58	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 06:58	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MB#3 **Lab ID: 92207080006** Collected: 06/24/14 16:50 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 06:58	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/01/14 06:58	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/01/14 06:58	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/01/14 06:58	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		07/01/14 06:58	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		07/01/14 06:58	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		07/01/14 06:58	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MB#15 **Lab ID: 92207080007** Collected: 06/24/14 17:05 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 07:16	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 07:16	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 07:16	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 07:16	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 07:16	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 07:16	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/01/14 07:16	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 07:16	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 07:16	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MB#15 **Lab ID: 92207080007** Collected: 06/24/14 17:05 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 07:16	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/01/14 07:16	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/01/14 07:16	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/01/14 07:16	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		07/01/14 07:16	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		07/01/14 07:16	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		07/01/14 07:16	2037-26-5	

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(704)875-9092

ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MB#5 **Lab ID: 92207080008** Collected: 06/24/14 17:15 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 07:34	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 07:34	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 07:34	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 07:34	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 07:34	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 07:34	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/01/14 07:34	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 07:34	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 07:34	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MB#5 **Lab ID: 92207080008** Collected: 06/24/14 17:15 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 07:34	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/01/14 07:34	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/01/14 07:34	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/01/14 07:34	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		07/01/14 07:34	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130	1		07/01/14 07:34	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		07/01/14 07:34	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: DUP-1 **Lab ID: 92207080009** Collected: 06/24/14 12:00 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/30/14 21:18	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		06/30/14 21:18	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/30/14 21:18	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	75-00-3	
Chloroform	**1.1**	ug/L	1.0	1		06/30/14 21:18	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		06/30/14 21:18	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/30/14 21:18	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	107-06-2	
1,1-Dichloroethene	**31.9**	ug/L	1.0	1		06/30/14 21:18	75-35-4	
cis-1,2-Dichloroethene	**43.6**	ug/L	1.0	1		06/30/14 21:18	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		06/30/14 21:18	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		06/30/14 21:18	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		06/30/14 21:18	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	91-20-3	
n-Propylbenzene	**2.1**	ug/L	1.0	1		06/30/14 21:18	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: DUP-1 **Lab ID: 92207080009** Collected: 06/24/14 12:00 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	120-82-1	
1,1,1-Trichloroethane	**4.2**	ug/L	1.0	1		06/30/14 21:18	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	79-00-5	
Trichloroethene	**178**	ug/L	5.0	5		07/03/14 04:16	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:18	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/30/14 21:18	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		06/30/14 21:18	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		06/30/14 21:18	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		06/30/14 21:18	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		06/30/14 21:18	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		06/30/14 21:18	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-20 **Lab ID: 92207080010** Collected: 06/25/14 13:55 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/30/14 21:36	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		06/30/14 21:36	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/30/14 21:36	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/30/14 21:36	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		06/30/14 21:36	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/30/14 21:36	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	75-35-4	
cis-1,2-Dichloroethene	**10.7**	ug/L	1.0	1		06/30/14 21:36	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	563-58-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		06/30/14 21:36	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		06/30/14 21:36	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	87-61-6	
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	120-82-1	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-20 **Lab ID: 92207080010** Collected: 06/25/14 13:55 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	79-00-5	
Trichloroethene	**1.0**	ug/L	1.0	1		06/30/14 21:36	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:36	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	108-67-8	
Vinyl chloride	**1.4**	ug/L	1.0	1		06/30/14 21:36	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		06/30/14 21:36	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		06/30/14 21:36	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		06/30/14 21:36	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		06/30/14 21:36	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		06/30/14 21:36	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**<2.0**	ug/L	2.0	1		07/03/14 16:52	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%	50-150	1		07/03/14 16:52	17060-07-0	
Toluene-d8 (S)	85	%	50-150	1		07/03/14 16:52	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-27 **Lab ID: 92207080011** Collected: 06/25/14 16:40 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/30/14 21:54	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		06/30/14 21:54	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/30/14 21:54	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/30/14 21:54	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		06/30/14 21:54	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/30/14 21:54	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	75-35-4	
cis-1,2-Dichloroethene	**4.4**	ug/L	1.0	1		06/30/14 21:54	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	563-58-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		06/30/14 21:54	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		06/30/14 21:54	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	87-61-6	
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	120-82-1	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-27 **Lab ID: 92207080011** Collected: 06/25/14 16:40 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	79-00-5	
Trichloroethene	**4.1**	ug/L	1.0	1		06/30/14 21:54	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 21:54	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/30/14 21:54	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		06/30/14 21:54	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		06/30/14 21:54	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		06/30/14 21:54	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		06/30/14 21:54	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		06/30/14 21:54	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**<2.0**	ug/L	2.0	1		07/01/14 19:33	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	131	%	50-150	1		07/01/14 19:33	17060-07-0	
Toluene-d8 (S)	71	%	50-150	1		07/01/14 19:33	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-28 **Lab ID: 92207080012** Collected: 06/25/14 17:22 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/30/14 22:12	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		06/30/14 22:12	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/30/14 22:12	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/30/14 22:12	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		06/30/14 22:12	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/30/14 22:12	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	107-06-2	
1,1-Dichloroethene	**2.4**	ug/L	1.0	1		06/30/14 22:12	75-35-4	
cis-1,2-Dichloroethene	**18.7**	ug/L	1.0	1		06/30/14 22:12	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	563-58-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		06/30/14 22:12	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		06/30/14 22:12	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	87-61-6	
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	120-82-1	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-28 **Lab ID: 92207080012** Collected: 06/25/14 17:22 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	79-00-5	
Trichloroethene	**3.6**	ug/L	1.0	1		06/30/14 22:12	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 22:12	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/30/14 22:12	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		06/30/14 22:12	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		06/30/14 22:12	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		06/30/14 22:12	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		06/30/14 22:12	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		06/30/14 22:12	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**<2.0**	ug/L	2.0	1		07/01/14 19:54	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	126	%	50-150	1		07/01/14 19:54	17060-07-0	
Toluene-d8 (S)	71	%	50-150	1		07/01/14 19:54	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-3 **Lab ID: 92207080013** Collected: 06/25/14 12:12 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/30/14 22:48	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		06/30/14 22:48	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/30/14 22:48	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	75-00-3	
Chloroform	**3.5**	ug/L	1.0	1		06/30/14 22:48	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		06/30/14 22:48	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/30/14 22:48	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		06/30/14 22:48	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		06/30/14 22:48	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		06/30/14 22:48	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-3 **Lab ID: 92207080013** Collected: 06/25/14 12:12 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 22:48	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/30/14 22:48	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		06/30/14 22:48	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		06/30/14 22:48	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		06/30/14 22:48	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		06/30/14 22:48	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		06/30/14 22:48	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-22 **Lab ID: 92207080014** Collected: 06/25/14 15:10 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/07/14 19:12	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/07/14 19:12	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/07/14 19:12	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/07/14 19:12	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/07/14 19:12	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/07/14 19:12	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/07/14 19:12	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/07/14 19:12	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/07/14 19:12	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-22 **Lab ID: 92207080014** Collected: 06/25/14 15:10 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/07/14 19:12	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/07/14 19:12	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/07/14 19:12	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/07/14 19:12	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		07/07/14 19:12	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		07/07/14 19:12	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		07/07/14 19:12	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-5 **Lab ID: 92207080015** Collected: 06/25/14 17:30 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/30/14 23:06	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		06/30/14 23:06	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/30/14 23:06	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	75-00-3	
Chloroform	**3.5**	ug/L	1.0	1		06/30/14 23:06	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		06/30/14 23:06	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/30/14 23:06	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	107-06-2	
1,1-Dichloroethene	**24.0**	ug/L	1.0	1		06/30/14 23:06	75-35-4	
cis-1,2-Dichloroethene	**9.6**	ug/L	1.0	1		06/30/14 23:06	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	563-58-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	100-41-4	
Hexachloro-1,3-butadiene	**2.9**	ug/L	1.0	1		06/30/14 23:06	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		06/30/14 23:06	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		06/30/14 23:06	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	100-42-5	
1,1,1,2-Tetrachloroethane	**2.5**	ug/L	1.0	1		06/30/14 23:06	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	79-34-5	
Tetrachloroethene	**2.2**	ug/L	1.0	1		06/30/14 23:06	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	87-61-6	
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	120-82-1	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-5 **Lab ID: 92207080015** Collected: 06/25/14 17:30 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1,1-Trichloroethane	**3.0**	ug/L	1.0	1		06/30/14 23:06	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	79-00-5	
Trichloroethene	**482**	ug/L	10.0	10		07/03/14 04:33	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:06	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/30/14 23:06	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		06/30/14 23:06	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		06/30/14 23:06	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		06/30/14 23:06	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		06/30/14 23:06	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		06/30/14 23:06	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**<2.0**	ug/L	2.0	1		07/01/14 20:16	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	125	%	50-150	1		07/01/14 20:16	17060-07-0	
Toluene-d8 (S)	71	%	50-150	1		07/01/14 20:16	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: DUP-2 **Lab ID: 92207080016** Collected: 06/26/14 12:00 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 00:01	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 00:01	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 00:01	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 00:01	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 00:01	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 00:01	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	75-71-8	
1,1-Dichloroethane	**3.0**	ug/L	1.0	1		07/01/14 00:01	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	107-06-2	
1,1-Dichloroethene	**69.9**	ug/L	1.0	1		07/01/14 00:01	75-35-4	
cis-1,2-Dichloroethene	**268**	ug/L	50.0	50		07/03/14 04:49	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	563-58-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 00:01	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 00:01	75-09-2	
Naphthalene	**5.7**	ug/L	1.0	1		07/01/14 00:01	91-20-3	
n-Propylbenzene	**2.1**	ug/L	1.0	1		07/01/14 00:01	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	79-34-5	
Tetrachloroethene	**1.8**	ug/L	1.0	1		07/01/14 00:01	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	87-61-6	
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	120-82-1	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: DUP-2 **Lab ID: 92207080016** Collected: 06/26/14 12:00 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	79-00-5	
Trichloroethene	**1470**	ug/L	50.0	50		07/03/14 04:49	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:01	96-18-4	
1,2,4-Trimethylbenzene	**2.8**	ug/L	1.0	1		07/01/14 00:01	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:01	108-67-8	
Vinyl chloride	**1.8**	ug/L	1.0	1		07/01/14 00:01	75-01-4	
m&p-Xylene	**2.7**	ug/L	2.0	1		07/01/14 00:01	179601-23-1	
o-Xylene	**2.5**	ug/L	1.0	1		07/01/14 00:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		07/01/14 00:01	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130	1		07/01/14 00:01	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		07/01/14 00:01	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**<2.0**	ug/L	2.0	1		07/01/14 20:37	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	125	%	50-150	1		07/01/14 20:37	17060-07-0	
Toluene-d8 (S)	71	%	50-150	1		07/01/14 20:37	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-14 **Lab ID: 92207080017** Collected: 06/26/14 11:35 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 00:19	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 00:19	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 00:19	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 00:19	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 00:19	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 00:19	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	75-71-8	
1,1-Dichloroethane	**2.6**	ug/L	1.0	1		07/01/14 00:19	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	107-06-2	
1,1-Dichloroethene	**64.6**	ug/L	1.0	1		07/01/14 00:19	75-35-4	
cis-1,2-Dichloroethene	**258**	ug/L	50.0	50		07/03/14 05:05	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	563-58-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 00:19	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 00:19	75-09-2	
Naphthalene	**5.6**	ug/L	1.0	1		07/01/14 00:19	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	79-34-5	
Tetrachloroethene	**1.8**	ug/L	1.0	1		07/01/14 00:19	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	87-61-6	
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	120-82-1	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-14 **Lab ID: 92207080017** Collected: 06/26/14 11:35 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	79-00-5	
Trichloroethene	**1450**	ug/L	50.0	50		07/03/14 05:05	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:19	96-18-4	
1,2,4-Trimethylbenzene	**2.7**	ug/L	1.0	1		07/01/14 00:19	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	108-67-8	
Vinyl chloride	**1.6**	ug/L	1.0	1		07/01/14 00:19	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/01/14 00:19	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/01/14 00:19	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		07/01/14 00:19	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		07/01/14 00:19	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		07/01/14 00:19	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**<2.0**	ug/L	2.0	1		07/01/14 20:58	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%	50-150	1		07/01/14 20:58	17060-07-0	
Toluene-d8 (S)	70	%	50-150	1		07/01/14 20:58	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-25 **Lab ID: 92207080018** Collected: 06/26/14 11:45 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 00:37	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 00:37	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 00:37	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/01/14 00:37	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 00:37	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 00:37	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	107-06-2	
1,1-Dichloroethene	**26.1**	ug/L	1.0	1		07/01/14 00:37	75-35-4	
cis-1,2-Dichloroethene	**731**	ug/L	50.0	50		07/03/14 05:21	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	563-58-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 00:37	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 00:37	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	87-61-6	
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	120-82-1	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-25 **Lab ID: 92207080018** Collected: 06/26/14 11:45 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	79-00-5	
Trichloroethene	**1830**	ug/L	50.0	50		07/03/14 05:21	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 00:37	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	108-67-8	
Vinyl chloride	**46.3**	ug/L	1.0	1		07/01/14 00:37	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/01/14 00:37	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/01/14 00:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	92	%	70-130	1		07/01/14 00:37	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		07/01/14 00:37	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		07/01/14 00:37	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**3.3**	ug/L	2.0	1		07/01/14 22:24	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	140	%	50-150	1		07/01/14 22:24	17060-07-0	
Toluene-d8 (S)	70	%	50-150	1		07/01/14 22:24	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-10 **Lab ID: 92207080019** Collected: 06/26/14 13:28 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/03/14 08:36	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/03/14 08:36	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/03/14 08:36	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	75-00-3	
Chloroform	**1.5**	ug/L	1.0	1		07/03/14 08:36	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/03/14 08:36	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/03/14 08:36	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/03/14 08:36	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/03/14 08:36	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/03/14 08:36	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-10 **Lab ID: 92207080019** Collected: 06/26/14 13:28 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 08:36	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/03/14 08:36	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/03/14 08:36	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/03/14 08:36	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		07/03/14 08:36	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130	1		07/03/14 08:36	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		07/03/14 08:36	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-19 **Lab ID: 92207080020** Collected: 06/26/14 14:05 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/01/14 01:13	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/01/14 01:13	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/01/14 01:13	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	75-00-3	
Chloroform	**4.1**	ug/L	1.0	1		07/01/14 01:13	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/01/14 01:13	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/01/14 01:13	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	107-06-2	
1,1-Dichloroethene	**52.7**	ug/L	1.0	1		07/01/14 01:13	75-35-4	
cis-1,2-Dichloroethene	**29.0**	ug/L	1.0	1		07/01/14 01:13	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	563-58-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	100-41-4	
Hexachloro-1,3-butadiene	**1.8**	ug/L	1.0	1		07/01/14 01:13	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/01/14 01:13	98-82-8	
p-Isopropyltoluene	**2.3**	ug/L	1.0	1		07/01/14 01:13	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/01/14 01:13	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	91-20-3	
n-Propylbenzene	**2.2**	ug/L	1.0	1		07/01/14 01:13	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	100-42-5	
1,1,1,2-Tetrachloroethane	**7.1**	ug/L	1.0	1		07/01/14 01:13	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	79-34-5	
Tetrachloroethene	**1.7**	ug/L	1.0	1		07/01/14 01:13	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	87-61-6	
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/01/14 01:13	120-82-1	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: MW-19 **Lab ID: 92207080020** Collected: 06/26/14 14:05 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1,1-Trichloroethane	**7.3**	ug/L	1.0	1		07/01/14 01:13	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	79-00-5	
Trichloroethene	**2340**	ug/L	50.0	50		07/03/14 05:37	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/01/14 01:13	96-18-4	
1,2,4-Trimethylbenzene	**2.7**	ug/L	1.0	1		07/01/14 01:13	95-63-6	
1,3,5-Trimethylbenzene	**2.0**	ug/L	1.0	1		07/01/14 01:13	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/01/14 01:13	75-01-4	
m&p-Xylene	**3.5**	ug/L	2.0	1		07/01/14 01:13	179601-23-1	
o-Xylene	**2.7**	ug/L	1.0	1		07/01/14 01:13	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		07/01/14 01:13	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		07/01/14 01:13	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		07/01/14 01:13	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**<2.0**	ug/L	2.0	1		07/01/14 22:45	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	151	%	50-150	1		07/01/14 22:45	17060-07-0	
Toluene-d8 (S)	70	%	50-150	1		07/01/14 22:45	2037-26-5	

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(704)875-9092

ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: PURGE WATER DRUMS **Lab ID: 92207080021** Collected: 06/26/14 09:35 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/03/14 08:52	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		07/03/14 08:52	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/03/14 08:52	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/03/14 08:52	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		07/03/14 08:52	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/03/14 08:52	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	75-35-4	
cis-1,2-Dichloroethene	**23.3**	ug/L	1.0	1		07/03/14 08:52	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		07/03/14 08:52	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		07/03/14 08:52	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		07/03/14 08:52	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: PURGE WATER DRUMS **Lab ID: 92207080021** Collected: 06/26/14 09:35 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	79-00-5	
Trichloroethene	**82.4**	ug/L	1.0	1		07/03/14 08:52	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/03/14 08:52	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/03/14 08:52	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		07/03/14 08:52	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		07/03/14 08:52	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	92	%	70-130	1		07/03/14 08:52	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		07/03/14 08:52	17060-07-0	
Toluene-d8 (S)	105	%	70-130	1		07/03/14 08:52	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: TRIP BLANK **Lab ID: 92207080022** Collected: 06/26/14 00:00 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/30/14 23:24	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		06/30/14 23:24	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/30/14 23:24	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/30/14 23:24	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		06/30/14 23:24	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/30/14 23:24	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	563-58-6	
1,4-Dioxane (p-Dioxane)	**<150**	ug/L	150	1		06/30/14 23:24	123-91-1	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		06/30/14 23:24	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		06/30/14 23:24	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	87-61-6	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: TRIP BLANK **Lab ID: 92207080022** Collected: 06/26/14 00:00 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:24	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/30/14 23:24	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		06/30/14 23:24	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		06/30/14 23:24	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		06/30/14 23:24	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		06/30/14 23:24	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		06/30/14 23:24	2037-26-5	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: EB-1 **Lab ID: 92207080023** Collected: 06/25/14 09:50 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Benzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	71-43-2	
Bromobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	108-86-1	
Bromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		06/30/14 23:43	75-25-2	
Bromomethane	**<2.0**	ug/L	2.0	1		06/30/14 23:43	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	104-51-8	
sec-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	135-98-8	
tert-Butylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		06/30/14 23:43	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		06/30/14 23:43	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	95-49-8	
4-Chlorotoluene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	1		06/30/14 23:43	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		06/30/14 23:43	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	541-73-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	106-46-7	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	75-71-8	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	142-28-9	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	594-20-7	
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	563-58-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	100-41-4	
Hexachloro-1,3-butadiene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	1.0	1		06/30/14 23:43	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	99-87-6	
Methylene Chloride	**<2.0**	ug/L	2.0	1		06/30/14 23:43	75-09-2	
Naphthalene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	103-65-1	
Styrene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	87-61-6	
1,2,4-Trichlorobenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	120-82-1	

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ANALYTICAL RESULTS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Sample: EB-1 **Lab ID: 92207080023** Collected: 06/25/14 09:50 Received: 06/27/14 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		06/30/14 23:43	96-18-4	
1,2,4-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	95-63-6	
1,3,5-Trimethylbenzene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	108-67-8	
Vinyl chloride	**<1.0**	ug/L	1.0	1		06/30/14 23:43	75-01-4	
m&p-Xylene	**<2.0**	ug/L	2.0	1		06/30/14 23:43	179601-23-1	
o-Xylene	**<1.0**	ug/L	1.0	1		06/30/14 23:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	70-130	1		06/30/14 23:43	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		06/30/14 23:43	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		06/30/14 23:43	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.							
1,4-Dioxane (p-Dioxane)	**<2.0**	ug/L	2.0	1		07/03/14 17:14	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%	50-150	1		07/03/14 17:14	17060-07-0	
Toluene-d8 (S)	84	%	50-150	1		07/03/14 17:14	2037-26-5	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

QC Batch: MSV/27381 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92207080002, 92207080003, 92207080004, 92207080005, 92207080006, 92207080007, 92207080008

METHOD BLANK: 1231884 Matrix: Water
Associated Lab Samples: 92207080002, 92207080003, 92207080004, 92207080005, 92207080006, 92207080007, 92207080008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	07/01/14 03:20	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	07/01/14 03:20	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	07/01/14 03:20	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	07/01/14 03:20	
1,1-Dichloroethane	ug/L	<1.0	1.0	07/01/14 03:20	
1,1-Dichloroethene	ug/L	<1.0	1.0	07/01/14 03:20	
1,1-Dichloropropene	ug/L	<1.0	1.0	07/01/14 03:20	
1,2,3-Trichlorobenzene	ug/L	<1.0	1.0	07/01/14 03:20	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	07/01/14 03:20	
1,2,4-Trichlorobenzene	ug/L	<1.0	1.0	07/01/14 03:20	
1,2,4-Trimethylbenzene	ug/L	<1.0	1.0	07/01/14 03:20	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	2.0	07/01/14 03:20	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	07/01/14 03:20	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	07/01/14 03:20	
1,2-Dichloroethane	ug/L	<1.0	1.0	07/01/14 03:20	
1,2-Dichloropropane	ug/L	<1.0	1.0	07/01/14 03:20	
1,3,5-Trimethylbenzene	ug/L	<1.0	1.0	07/01/14 03:20	
1,3-Dichlorobenzene	ug/L	<1.0	1.0	07/01/14 03:20	
1,3-Dichloropropane	ug/L	<1.0	1.0	07/01/14 03:20	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	07/01/14 03:20	
1,4-Dioxane (p-Dioxane)	ug/L	<150	150	07/01/14 03:20	
2,2-Dichloropropane	ug/L	<1.0	1.0	07/01/14 03:20	
2-Chlorotoluene	ug/L	<1.0	1.0	07/01/14 03:20	
4-Chlorotoluene	ug/L	<1.0	1.0	07/01/14 03:20	
Benzene	ug/L	<1.0	1.0	07/01/14 03:20	
Bromobenzene	ug/L	<1.0	1.0	07/01/14 03:20	
Bromochloromethane	ug/L	<1.0	1.0	07/01/14 03:20	
Bromodichloromethane	ug/L	<1.0	1.0	07/01/14 03:20	
Bromoform	ug/L	<1.0	1.0	07/01/14 03:20	
Bromomethane	ug/L	<2.0	2.0	07/01/14 03:20	
Carbon tetrachloride	ug/L	<1.0	1.0	07/01/14 03:20	
Chlorobenzene	ug/L	<1.0	1.0	07/01/14 03:20	
Chloroethane	ug/L	<1.0	1.0	07/01/14 03:20	
Chloroform	ug/L	<1.0	1.0	07/01/14 03:20	
Chloromethane	ug/L	<1.0	1.0	07/01/14 03:20	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	07/01/14 03:20	
Dibromochloromethane	ug/L	<1.0	1.0	07/01/14 03:20	
Dibromomethane	ug/L	<1.0	1.0	07/01/14 03:20	
Dichlorodifluoromethane	ug/L	<1.0	1.0	07/01/14 03:20	
Ethylbenzene	ug/L	<1.0	1.0	07/01/14 03:20	
Hexachloro-1,3-butadiene	ug/L	<1.0	1.0	07/01/14 03:20	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

METHOD BLANK: 1231884 Matrix: Water
Associated Lab Samples: 92207080002, 92207080003, 92207080004, 92207080005, 92207080006, 92207080007, 92207080008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	<1.0	1.0	07/01/14 03:20	
m&p-Xylene	ug/L	<2.0	2.0	07/01/14 03:20	
Methylene Chloride	ug/L	<2.0	2.0	07/01/14 03:20	
n-Butylbenzene	ug/L	<1.0	1.0	07/01/14 03:20	
n-Propylbenzene	ug/L	<1.0	1.0	07/01/14 03:20	
Naphthalene	ug/L	<1.0	1.0	07/01/14 03:20	
o-Xylene	ug/L	<1.0	1.0	07/01/14 03:20	
p-Isopropyltoluene	ug/L	<1.0	1.0	07/01/14 03:20	
sec-Butylbenzene	ug/L	<1.0	1.0	07/01/14 03:20	
Styrene	ug/L	<1.0	1.0	07/01/14 03:20	
tert-Butylbenzene	ug/L	<1.0	1.0	07/01/14 03:20	
Tetrachloroethene	ug/L	<1.0	1.0	07/01/14 03:20	
Toluene	ug/L	<1.0	1.0	07/01/14 03:20	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	07/01/14 03:20	
Trichloroethene	ug/L	<1.0	1.0	07/01/14 03:20	
Trichlorofluoromethane	ug/L	<1.0	1.0	07/01/14 03:20	
Vinyl chloride	ug/L	<1.0	1.0	07/01/14 03:20	
1,2-Dichloroethane-d4 (S)	%	98	70-130	07/01/14 03:20	
4-Bromofluorobenzene (S)	%	97	70-130	07/01/14 03:20	
Toluene-d8 (S)	%	105	70-130	07/01/14 03:20	

LABORATORY CONTROL SAMPLE: 1231885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.4	101	70-130	
1,1,1-Trichloroethane	ug/L	50	50.1	100	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.6	101	70-130	
1,1,2-Trichloroethane	ug/L	50	50.9	102	70-130	
1,1-Dichloroethane	ug/L	50	49.0	98	70-130	
1,1-Dichloroethene	ug/L	50	54.4	109	70-132	
1,1-Dichloropropene	ug/L	50	54.3	109	70-130	
1,2,3-Trichlorobenzene	ug/L	50	49.2	98	70-135	
1,2,3-Trichloropropane	ug/L	50	52.7	105	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.7	105	70-134	
1,2,4-Trimethylbenzene	ug/L	50	50.9	102	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.7	93	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.8	106	70-130	
1,2-Dichlorobenzene	ug/L	50	50.8	102	70-130	
1,2-Dichloroethane	ug/L	50	50.4	101	70-130	
1,2-Dichloropropane	ug/L	50	54.0	108	70-130	
1,3,5-Trimethylbenzene	ug/L	50	51.0	102	70-130	
1,3-Dichlorobenzene	ug/L	50	51.2	102	70-130	
1,3-Dichloropropane	ug/L	50	52.8	106	70-130	
1,4-Dichlorobenzene	ug/L	50	51.0	102	70-130	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

LABORATORY CONTROL SAMPLE: 1231885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	1350	135	71-125	L3
2,2-Dichloropropane	ug/L	50	41.0	82	58-145	
2-Chlorotoluene	ug/L	50	46.8	94	70-130	
4-Chlorotoluene	ug/L	50	48.7	97	70-130	
Benzene	ug/L	50	57.6	115	70-130	
Bromobenzene	ug/L	50	49.3	99	70-130	
Bromochloromethane	ug/L	50	53.6	107	70-130	
Bromodichloromethane	ug/L	50	52.6	105	70-130	
Bromoform	ug/L	50	54.1	108	70-130	
Bromomethane	ug/L	50	70.0	140	54-130	L3
Carbon tetrachloride	ug/L	50	52.8	106	70-132	
Chlorobenzene	ug/L	50	51.8	104	70-130	
Chloroethane	ug/L	50	53.2	106	64-134	
Chloroform	ug/L	50	50.7	101	70-130	
Chloromethane	ug/L	50	62.8	126	64-130	
cis-1,2-Dichloroethene	ug/L	50	57.5	115	70-131	
Dibromochloromethane	ug/L	50	51.9	104	70-130	
Dibromomethane	ug/L	50	52.6	105	70-131	
Dichlorodifluoromethane	ug/L	50	68.8	138	56-130	L3
Ethylbenzene	ug/L	50	52.9	106	70-130	
Hexachloro-1,3-butadiene	ug/L	50	51.3	103	70-130	
Isopropylbenzene (Cumene)	ug/L	50	50.3	101	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methylene Chloride	ug/L	50	55.5	111	63-130	
n-Butylbenzene	ug/L	50	47.7	95	70-130	
n-Propylbenzene	ug/L	50	49.1	98	70-130	
Naphthalene	ug/L	50	42.5	85	70-138	
o-Xylene	ug/L	50	48.7	97	70-130	
p-Isopropyltoluene	ug/L	50	48.5	97	70-130	
sec-Butylbenzene	ug/L	50	49.0	98	70-130	
Styrene	ug/L	50	52.9	106	70-130	
tert-Butylbenzene	ug/L	50	49.4	99	70-130	
Tetrachloroethene	ug/L	50	48.8	98	70-130	
Toluene	ug/L	50	52.2	104	70-130	
trans-1,2-Dichloroethene	ug/L	50	55.1	110	70-130	
Trichloroethene	ug/L	50	53.4	107	70-130	
Trichlorofluoromethane	ug/L	50	62.1	124	62-133	
Vinyl chloride	ug/L	50	55.5	111	50-150	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

MATRIX SPIKE SAMPLE: 1235007

Parameter	Units	92207080005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	50	56.9	114	70-130	
1,1,1-Trichloroethane	ug/L	<1.0	50	56.3	113	70-130	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	57.7	115	70-130	
1,1,2-Trichloroethane	ug/L	<1.0	50	59.9	120	70-130	
1,1-Dichloroethane	ug/L	<1.0	50	58.9	118	70-130	
1,1-Dichloroethene	ug/L	<1.0	50	65.7	131	70-166	
1,1-Dichloropropene	ug/L	<1.0	50	64.4	129	70-130	
1,2,3-Trichlorobenzene	ug/L	<1.0	50	57.8	116	70-130	
1,2,3-Trichloropropane	ug/L	<1.0	50	58.6	117	70-130	
1,2,4-Trichlorobenzene	ug/L	<1.0	50	55.9	112	70-130	
1,2,4-Trimethylbenzene	ug/L	<1.0	50	59.2	118	70-130	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	50	50.9	102	70-130	
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	59.0	118	70-130	
1,2-Dichlorobenzene	ug/L	<1.0	50	58.2	116	70-130	
1,2-Dichloroethane	ug/L	<1.0	50	58.1	116	70-130	
1,2-Dichloropropane	ug/L	<1.0	50	64.7	129	70-130	
1,3,5-Trimethylbenzene	ug/L	<1.0	50	58.5	117	70-130	
1,3-Dichlorobenzene	ug/L	<1.0	50	56.8	114	70-130	
1,3-Dichloropropane	ug/L	<1.0	50	63.3	127	70-130	
1,4-Dichlorobenzene	ug/L	<1.0	50	57.3	115	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	<150	1000	1600	160	70-130	M0
2,2-Dichloropropane	ug/L	<1.0	50	52.3	105	70-130	
2-Chlorotoluene	ug/L	<1.0	50	56.4	113	70-130	
4-Chlorotoluene	ug/L	<1.0	50	57.6	115	70-130	
Benzene	ug/L	<1.0	50	64.7	129	70-148	
Bromobenzene	ug/L	<1.0	50	59.8	120	70-130	
Bromochloromethane	ug/L	<1.0	50	64.2	128	70-130	
Bromodichloromethane	ug/L	<1.0	50	58.3	117	70-130	
Bromoform	ug/L	<1.0	50	48.1	96	70-130	
Bromomethane	ug/L	<2.0	50	68.1	136	70-130	M0
Carbon tetrachloride	ug/L	<1.0	50	59.0	118	70-130	
Chlorobenzene	ug/L	<1.0	50	60.1	120	70-146	
Chloroethane	ug/L	<1.0	50	51.0	102	70-130	
Chloroform	ug/L	<1.0	50	60.5	121	70-130	
Chloromethane	ug/L	<1.0	50	65.8	132	70-130	M0
cis-1,2-Dichloroethene	ug/L	<1.0	50	66.9	134	70-130	M0
Dibromochloromethane	ug/L	<1.0	50	51.9	104	70-130	
Dibromomethane	ug/L	<1.0	50	54.9	110	70-130	
Dichlorodifluoromethane	ug/L	<1.0	50	89.1	178	70-130	M0
Ethylbenzene	ug/L	<1.0	50	58.5	117	70-130	
Hexachloro-1,3-butadiene	ug/L	<1.0	50	47.9	96	70-130	
Isopropylbenzene (Cumene)	ug/L	<1.0	50	58.9	118	70-130	
m&p-Xylene	ug/L	<2.0	100	118	118	70-130	
Methylene Chloride	ug/L	<2.0	50	63.3	127	70-130	
n-Butylbenzene	ug/L	<1.0	50	59.2	118	70-130	
n-Propylbenzene	ug/L	<1.0	50	59.4	119	70-130	
Naphthalene	ug/L	<1.0	50	58.8	118	70-130	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

MATRIX SPIKE SAMPLE: 1235007

Parameter	Units	92207080005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	<1.0	50	59.4	119	70-130	
p-Isopropyltoluene	ug/L	<1.0	50	58.9	118	70-130	
sec-Butylbenzene	ug/L	<1.0	50	59.2	118	70-130	
Styrene	ug/L	<1.0	50	59.9	120	70-130	
tert-Butylbenzene	ug/L	<1.0	50	58.6	117	70-130	
Tetrachloroethene	ug/L	<1.0	50	57.0	114	70-130	
Toluene	ug/L	<1.0	50	61.2	121	70-155	
trans-1,2-Dichloroethene	ug/L	<1.0	50	65.4	131	70-130	M0
Trichloroethene	ug/L	<1.0	50	58.1	116	69-151	
Trichlorofluoromethane	ug/L	<1.0	50	74.5	149	70-130	M0
Vinyl chloride	ug/L	<1.0	50	71.7	143	70-130	M0
1,2-Dichloroethane-d4 (S)	%				102	70-130	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				101	70-130	

SAMPLE DUPLICATE: 1235008

Parameter	Units	92207080006 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	<1.0		
1,1,1-Trichloroethane	ug/L	<1.0	<1.0		
1,1,2,2-Tetrachloroethane	ug/L	<1.0	<1.0		
1,1,2-Trichloroethane	ug/L	<1.0	<1.0		
1,1-Dichloroethane	ug/L	<1.0	<1.0		
1,1-Dichloroethene	ug/L	<1.0	<1.0		
1,1-Dichloropropene	ug/L	<1.0	<1.0		
1,2,3-Trichlorobenzene	ug/L	<1.0	<1.0		
1,2,3-Trichloropropane	ug/L	<1.0	<1.0		
1,2,4-Trichlorobenzene	ug/L	<1.0	<1.0		
1,2,4-Trimethylbenzene	ug/L	<1.0	<1.0		
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<2.0		
1,2-Dibromoethane (EDB)	ug/L	<1.0	<1.0		
1,2-Dichlorobenzene	ug/L	<1.0	<1.0		
1,2-Dichloroethane	ug/L	<1.0	<1.0		
1,2-Dichloropropane	ug/L	<1.0	<1.0		
1,3,5-Trimethylbenzene	ug/L	<1.0	<1.0		
1,3-Dichlorobenzene	ug/L	<1.0	<1.0		
1,3-Dichloropropane	ug/L	<1.0	<1.0		
1,4-Dichlorobenzene	ug/L	<1.0	<1.0		
1,4-Dioxane (p-Dioxane)	ug/L	<150	<150		
2,2-Dichloropropane	ug/L	<1.0	<1.0		
2-Chlorotoluene	ug/L	<1.0	<1.0		
4-Chlorotoluene	ug/L	<1.0	<1.0		
Benzene	ug/L	<1.0	<1.0		
Bromobenzene	ug/L	<1.0	<1.0		
Bromochloromethane	ug/L	<1.0	<1.0		

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

SAMPLE DUPLICATE: 1235008

Parameter	Units	92207080006 Result	Dup Result	RPD	Qualifiers
Bromodichloromethane	ug/L	<1.0	<1.0		
Bromoform	ug/L	<1.0	<1.0		
Bromomethane	ug/L	<2.0	<2.0		
Carbon tetrachloride	ug/L	<1.0	<1.0		
Chlorobenzene	ug/L	<1.0	<1.0		
Chloroethane	ug/L	<1.0	<1.0		
Chloroform	ug/L	<1.0	<1.0		
Chloromethane	ug/L	<1.0	<1.0		
cis-1,2-Dichloroethene	ug/L	<1.0	<1.0		
Dibromochloromethane	ug/L	<1.0	<1.0		
Dibromomethane	ug/L	<1.0	<1.0		
Dichlorodifluoromethane	ug/L	<1.0	<1.0		
Ethylbenzene	ug/L	<1.0	<1.0		
Hexachloro-1,3-butadiene	ug/L	<1.0	<1.0		
Isopropylbenzene (Cumene)	ug/L	<1.0	<1.0		
m&p-Xylene	ug/L	<2.0	<2.0		
Methylene Chloride	ug/L	<2.0	<2.0		
n-Butylbenzene	ug/L	<1.0	<1.0		
n-Propylbenzene	ug/L	<1.0	<1.0		
Naphthalene	ug/L	<1.0	<1.0		
o-Xylene	ug/L	<1.0	<1.0		
p-Isopropyltoluene	ug/L	<1.0	<1.0		
sec-Butylbenzene	ug/L	<1.0	<1.0		
Styrene	ug/L	<1.0	<1.0		
tert-Butylbenzene	ug/L	<1.0	<1.0		
Tetrachloroethene	ug/L	<1.0	<1.0		
Toluene	ug/L	<1.0	<1.0		
trans-1,2-Dichloroethene	ug/L	<1.0	<1.0		
Trichloroethene	ug/L	<1.0	<1.0		
Trichlorofluoromethane	ug/L	<1.0	<1.0		
Vinyl chloride	ug/L	<1.0	<1.0		
1,2-Dichloroethane-d4 (S)	%	102	108	6	
4-Bromofluorobenzene (S)	%	94	93	2	
Toluene-d8 (S)	%	103	104	1	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

QC Batch: MSV/27405 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92207080009, 92207080010, 92207080011, 92207080012, 92207080013, 92207080015, 92207080016, 92207080017, 92207080018, 92207080020, 92207080022, 92207080023

METHOD BLANK: 1232540 Matrix: Water
Associated Lab Samples: 92207080009, 92207080010, 92207080011, 92207080012, 92207080013, 92207080015, 92207080016, 92207080017, 92207080018, 92207080020, 92207080022, 92207080023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	06/30/14 15:34	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	06/30/14 15:34	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	06/30/14 15:34	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	06/30/14 15:34	
1,1-Dichloroethane	ug/L	<1.0	1.0	06/30/14 15:34	
1,1-Dichloroethene	ug/L	<1.0	1.0	06/30/14 15:34	
1,1-Dichloropropene	ug/L	<1.0	1.0	06/30/14 15:34	
1,2,3-Trichlorobenzene	ug/L	<1.0	1.0	06/30/14 15:34	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	06/30/14 15:34	
1,2,4-Trichlorobenzene	ug/L	<1.0	1.0	06/30/14 15:34	
1,2,4-Trimethylbenzene	ug/L	<1.0	1.0	06/30/14 15:34	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	2.0	06/30/14 15:34	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	06/30/14 15:34	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	06/30/14 15:34	
1,2-Dichloroethane	ug/L	<1.0	1.0	06/30/14 15:34	
1,2-Dichloropropane	ug/L	<1.0	1.0	06/30/14 15:34	
1,3,5-Trimethylbenzene	ug/L	<1.0	1.0	06/30/14 15:34	
1,3-Dichlorobenzene	ug/L	<1.0	1.0	06/30/14 15:34	
1,3-Dichloropropane	ug/L	<1.0	1.0	06/30/14 15:34	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	06/30/14 15:34	
1,4-Dioxane (p-Dioxane)	ug/L	<150	150	06/30/14 15:34	
2,2-Dichloropropane	ug/L	<1.0	1.0	06/30/14 15:34	
2-Chlorotoluene	ug/L	<1.0	1.0	06/30/14 15:34	
4-Chlorotoluene	ug/L	<1.0	1.0	06/30/14 15:34	
Benzene	ug/L	<1.0	1.0	06/30/14 15:34	
Bromobenzene	ug/L	<1.0	1.0	06/30/14 15:34	
Bromochloromethane	ug/L	<1.0	1.0	06/30/14 15:34	
Bromodichloromethane	ug/L	<1.0	1.0	06/30/14 15:34	
Bromoform	ug/L	<1.0	1.0	06/30/14 15:34	
Bromomethane	ug/L	<2.0	2.0	06/30/14 15:34	
Carbon tetrachloride	ug/L	<1.0	1.0	06/30/14 15:34	
Chlorobenzene	ug/L	<1.0	1.0	06/30/14 15:34	
Chloroethane	ug/L	<1.0	1.0	06/30/14 15:34	
Chloroform	ug/L	<1.0	1.0	06/30/14 15:34	
Chloromethane	ug/L	<1.0	1.0	06/30/14 15:34	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	06/30/14 15:34	
Dibromochloromethane	ug/L	<1.0	1.0	06/30/14 15:34	
Dibromomethane	ug/L	<1.0	1.0	06/30/14 15:34	
Dichlorodifluoromethane	ug/L	<1.0	1.0	06/30/14 15:34	
Ethylbenzene	ug/L	<1.0	1.0	06/30/14 15:34	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

METHOD BLANK: 1232540 Matrix: Water

Associated Lab Samples: 92207080009, 92207080010, 92207080011, 92207080012, 92207080013, 92207080015, 92207080016, 92207080017, 92207080018, 92207080020, 92207080022, 92207080023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.0	1.0	06/30/14 15:34	
Isopropylbenzene (Cumene)	ug/L	<1.0	1.0	06/30/14 15:34	
m&p-Xylene	ug/L	<2.0	2.0	06/30/14 15:34	
Methylene Chloride	ug/L	<2.0	2.0	06/30/14 15:34	
n-Butylbenzene	ug/L	<1.0	1.0	06/30/14 15:34	
n-Propylbenzene	ug/L	<1.0	1.0	06/30/14 15:34	
Naphthalene	ug/L	<1.0	1.0	06/30/14 15:34	
o-Xylene	ug/L	<1.0	1.0	06/30/14 15:34	
p-Isopropyltoluene	ug/L	<1.0	1.0	06/30/14 15:34	
sec-Butylbenzene	ug/L	<1.0	1.0	06/30/14 15:34	
Styrene	ug/L	<1.0	1.0	06/30/14 15:34	
tert-Butylbenzene	ug/L	<1.0	1.0	06/30/14 15:34	
Tetrachloroethene	ug/L	<1.0	1.0	06/30/14 15:34	
Toluene	ug/L	<1.0	1.0	06/30/14 15:34	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	06/30/14 15:34	
Trichloroethene	ug/L	<1.0	1.0	06/30/14 15:34	
Trichlorofluoromethane	ug/L	<1.0	1.0	06/30/14 15:34	
Vinyl chloride	ug/L	<1.0	1.0	06/30/14 15:34	
1,2-Dichloroethane-d4 (S)	%	97	70-130	06/30/14 15:34	
4-Bromofluorobenzene (S)	%	99	70-130	06/30/14 15:34	
Toluene-d8 (S)	%	110	70-130	06/30/14 15:34	

LABORATORY CONTROL SAMPLE: 1232541

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.3	101	70-130	
1,1,1-Trichloroethane	ug/L	50	49.0	98	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.8	104	70-130	
1,1,2-Trichloroethane	ug/L	50	49.8	100	70-130	
1,1-Dichloroethane	ug/L	50	50.8	102	70-130	
1,1-Dichloroethene	ug/L	50	58.4	117	70-132	
1,1-Dichloropropene	ug/L	50	54.3	109	70-130	
1,2,3-Trichlorobenzene	ug/L	50	54.9	110	70-135	
1,2,3-Trichloropropane	ug/L	50	48.6	97	70-130	
1,2,4-Trichlorobenzene	ug/L	50	55.3	111	70-134	
1,2,4-Trimethylbenzene	ug/L	50	51.2	102	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.7	95	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	50.8	102	70-130	
1,2-Dichloroethane	ug/L	50	54.0	108	70-130	
1,2-Dichloropropane	ug/L	50	54.5	109	70-130	
1,3,5-Trimethylbenzene	ug/L	50	50.6	101	70-130	
1,3-Dichlorobenzene	ug/L	50	50.0	100	70-130	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

LABORATORY CONTROL SAMPLE: 1232541

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichloropropane	ug/L	50	54.6	109	70-130	
1,4-Dichlorobenzene	ug/L	50	49.7	99	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1590	159	71-125	L3
2,2-Dichloropropane	ug/L	50	49.6	99	58-145	
2-Chlorotoluene	ug/L	50	48.4	97	70-130	
4-Chlorotoluene	ug/L	50	51.1	102	70-130	
Benzene	ug/L	50	56.3	113	70-130	
Bromobenzene	ug/L	50	52.0	104	70-130	
Bromochloromethane	ug/L	50	51.4	103	70-130	
Bromodichloromethane	ug/L	50	51.5	103	70-130	
Bromoform	ug/L	50	52.7	105	70-130	
Bromomethane	ug/L	50	52.3	105	54-130	
Carbon tetrachloride	ug/L	50	50.4	101	70-132	
Chlorobenzene	ug/L	50	51.3	103	70-130	
Chloroethane	ug/L	50	32.2	64	64-134	
Chloroform	ug/L	50	51.7	103	70-130	
Chloromethane	ug/L	50	56.7	113	64-130	
cis-1,2-Dichloroethene	ug/L	50	60.6	121	70-131	
Dibromochloromethane	ug/L	50	51.8	104	70-130	
Dibromomethane	ug/L	50	49.8	100	70-131	
Dichlorodifluoromethane	ug/L	50	57.9	116	56-130	
Ethylbenzene	ug/L	50	53.5	107	70-130	
Hexachloro-1,3-butadiene	ug/L	50	54.9	110	70-130	
Isopropylbenzene (Cumene)	ug/L	50	50.2	100	70-130	
m&p-Xylene	ug/L	100	101	101	70-130	
Methylene Chloride	ug/L	50	54.8	110	63-130	
n-Butylbenzene	ug/L	50	50.4	101	70-130	
n-Propylbenzene	ug/L	50	50.8	102	70-130	
Naphthalene	ug/L	50	45.2	90	70-138	
o-Xylene	ug/L	50	49.9	100	70-130	
p-Isopropyltoluene	ug/L	50	49.1	98	70-130	
sec-Butylbenzene	ug/L	50	49.9	100	70-130	
Styrene	ug/L	50	51.2	102	70-130	
tert-Butylbenzene	ug/L	50	50.3	101	70-130	
Tetrachloroethene	ug/L	50	47.1	94	70-130	
Toluene	ug/L	50	51.0	102	70-130	
trans-1,2-Dichloroethene	ug/L	50	58.3	117	70-130	
Trichloroethene	ug/L	50	50.1	100	70-130	
Trichlorofluoromethane	ug/L	50	43.0	86	62-133	
Vinyl chloride	ug/L	50	49.8	100	50-150	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			101	70-130	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1233105 1233106

Parameter	Units	92206266006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	57.1	54.7	114	109	70-166	4	
Benzene	ug/L	ND	50	50	56.7	56.1	113	112	70-148	1	
Chlorobenzene	ug/L	ND	50	50	53.4	52.6	107	105	70-146	1	
Toluene	ug/L	ND	50	50	52.1	51.0	104	102	70-155	2	
Trichloroethene	ug/L	ND	50	50	52.0	51.6	104	103	69-151	1	
1,2-Dichloroethane-d4 (S)	%						106	109	70-130		
4-Bromofluorobenzene (S)	%						93	94	70-130		
Toluene-d8 (S)	%						102	102	70-130		

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

QC Batch: MSV/27448 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92207080001, 92207080019, 92207080021

METHOD BLANK: 1235023 Matrix: Water
Associated Lab Samples: 92207080001, 92207080019, 92207080021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	07/03/14 07:31	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	07/03/14 07:31	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	07/03/14 07:31	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	07/03/14 07:31	
1,1-Dichloroethane	ug/L	<1.0	1.0	07/03/14 07:31	
1,1-Dichloroethene	ug/L	<1.0	1.0	07/03/14 07:31	
1,1-Dichloropropene	ug/L	<1.0	1.0	07/03/14 07:31	
1,2,3-Trichlorobenzene	ug/L	<1.0	1.0	07/03/14 07:31	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	07/03/14 07:31	
1,2,4-Trichlorobenzene	ug/L	<1.0	1.0	07/03/14 07:31	
1,2,4-Trimethylbenzene	ug/L	<1.0	1.0	07/03/14 07:31	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	2.0	07/03/14 07:31	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	07/03/14 07:31	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	07/03/14 07:31	
1,2-Dichloroethane	ug/L	<1.0	1.0	07/03/14 07:31	
1,2-Dichloropropane	ug/L	<1.0	1.0	07/03/14 07:31	
1,3,5-Trimethylbenzene	ug/L	<1.0	1.0	07/03/14 07:31	
1,3-Dichlorobenzene	ug/L	<1.0	1.0	07/03/14 07:31	
1,3-Dichloropropane	ug/L	<1.0	1.0	07/03/14 07:31	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	07/03/14 07:31	
1,4-Dioxane (p-Dioxane)	ug/L	<150	150	07/03/14 07:31	
2,2-Dichloropropane	ug/L	<1.0	1.0	07/03/14 07:31	
2-Chlorotoluene	ug/L	<1.0	1.0	07/03/14 07:31	
4-Chlorotoluene	ug/L	<1.0	1.0	07/03/14 07:31	
Benzene	ug/L	<1.0	1.0	07/03/14 07:31	
Bromobenzene	ug/L	<1.0	1.0	07/03/14 07:31	
Bromochloromethane	ug/L	<1.0	1.0	07/03/14 07:31	
Bromodichloromethane	ug/L	<1.0	1.0	07/03/14 07:31	
Bromoform	ug/L	<1.0	1.0	07/03/14 07:31	
Bromomethane	ug/L	<2.0	2.0	07/03/14 07:31	
Carbon tetrachloride	ug/L	<1.0	1.0	07/03/14 07:31	
Chlorobenzene	ug/L	<1.0	1.0	07/03/14 07:31	
Chloroethane	ug/L	<1.0	1.0	07/03/14 07:31	
Chloroform	ug/L	<1.0	1.0	07/03/14 07:31	
Chloromethane	ug/L	<1.0	1.0	07/03/14 07:31	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	07/03/14 07:31	
Dibromochloromethane	ug/L	<1.0	1.0	07/03/14 07:31	
Dibromomethane	ug/L	<1.0	1.0	07/03/14 07:31	
Dichlorodifluoromethane	ug/L	<1.0	1.0	07/03/14 07:31	
Ethylbenzene	ug/L	<1.0	1.0	07/03/14 07:31	
Hexachloro-1,3-butadiene	ug/L	<1.0	1.0	07/03/14 07:31	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

METHOD BLANK: 1235023 Matrix: Water
Associated Lab Samples: 92207080001, 92207080019, 92207080021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	<1.0	1.0	07/03/14 07:31	
m&p-Xylene	ug/L	<2.0	2.0	07/03/14 07:31	
Methylene Chloride	ug/L	<2.0	2.0	07/03/14 07:31	
n-Butylbenzene	ug/L	<1.0	1.0	07/03/14 07:31	
n-Propylbenzene	ug/L	<1.0	1.0	07/03/14 07:31	
Naphthalene	ug/L	<1.0	1.0	07/03/14 07:31	
o-Xylene	ug/L	<1.0	1.0	07/03/14 07:31	
p-Isopropyltoluene	ug/L	<1.0	1.0	07/03/14 07:31	
sec-Butylbenzene	ug/L	<1.0	1.0	07/03/14 07:31	
Styrene	ug/L	<1.0	1.0	07/03/14 07:31	
tert-Butylbenzene	ug/L	<1.0	1.0	07/03/14 07:31	
Tetrachloroethene	ug/L	<1.0	1.0	07/03/14 07:31	
Toluene	ug/L	<1.0	1.0	07/03/14 07:31	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	07/03/14 07:31	
Trichloroethene	ug/L	<1.0	1.0	07/03/14 07:31	
Trichlorofluoromethane	ug/L	<1.0	1.0	07/03/14 07:31	
Vinyl chloride	ug/L	<1.0	1.0	07/03/14 07:31	
1,2-Dichloroethane-d4 (S)	%	108	70-130	07/03/14 07:31	
4-Bromofluorobenzene (S)	%	93	70-130	07/03/14 07:31	
Toluene-d8 (S)	%	103	70-130	07/03/14 07:31	

LABORATORY CONTROL SAMPLE: 1235024

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.9	96	70-130	
1,1,1-Trichloroethane	ug/L	50	46.7	93	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.3	103	70-130	
1,1,2-Trichloroethane	ug/L	50	51.1	102	70-130	
1,1-Dichloroethane	ug/L	50	49.8	100	70-130	
1,1-Dichloroethene	ug/L	50	53.6	107	70-132	
1,1-Dichloropropene	ug/L	50	54.3	109	70-130	
1,2,3-Trichlorobenzene	ug/L	50	53.1	106	70-135	
1,2,3-Trichloropropane	ug/L	50	51.9	104	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.0	104	70-134	
1,2,4-Trimethylbenzene	ug/L	50	52.1	104	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	44.5	89	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	51.8	104	70-130	
1,2-Dichlorobenzene	ug/L	50	51.7	103	70-130	
1,2-Dichloroethane	ug/L	50	50.1	100	70-130	
1,2-Dichloropropane	ug/L	50	54.8	110	70-130	
1,3,5-Trimethylbenzene	ug/L	50	50.7	101	70-130	
1,3-Dichlorobenzene	ug/L	50	50.5	101	70-130	
1,3-Dichloropropane	ug/L	50	54.7	109	70-130	
1,4-Dichlorobenzene	ug/L	50	51.1	102	70-130	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

LABORATORY CONTROL SAMPLE: 1235024

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	1230	123	71-125	
2,2-Dichloropropane	ug/L	50	42.7	85	58-145	
2-Chlorotoluene	ug/L	50	49.5	99	70-130	
4-Chlorotoluene	ug/L	50	50.1	100	70-130	
Benzene	ug/L	50	53.6	107	70-130	
Bromobenzene	ug/L	50	51.7	103	70-130	
Bromochloromethane	ug/L	50	53.9	108	70-130	
Bromodichloromethane	ug/L	50	49.0	98	70-130	
Bromoform	ug/L	50	42.1	84	70-130	
Bromomethane	ug/L	50	58.4	117	54-130	
Carbon tetrachloride	ug/L	50	46.8	94	70-132	
Chlorobenzene	ug/L	50	51.8	104	70-130	
Chloroethane	ug/L	50	54.6	109	64-134	
Chloroform	ug/L	50	49.9	100	70-130	
Chloromethane	ug/L	50	55.3	111	64-130	
cis-1,2-Dichloroethene	ug/L	50	55.7	111	70-131	
Dibromochloromethane	ug/L	50	45.3	91	70-130	
Dibromomethane	ug/L	50	45.2	90	70-131	
Dichlorodifluoromethane	ug/L	50	70.4	141	56-130	L3
Ethylbenzene	ug/L	50	50.4	101	70-130	
Hexachloro-1,3-butadiene	ug/L	50	47.1	94	70-130	
Isopropylbenzene (Cumene)	ug/L	50	51.3	103	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methylene Chloride	ug/L	50	59.4	119	63-130	
n-Butylbenzene	ug/L	50	53.7	107	70-130	
n-Propylbenzene	ug/L	50	51.4	103	70-130	
Naphthalene	ug/L	50	52.8	106	70-138	
o-Xylene	ug/L	50	51.0	102	70-130	
p-Isopropyltoluene	ug/L	50	51.1	102	70-130	
sec-Butylbenzene	ug/L	50	52.6	105	70-130	
Styrene	ug/L	50	52.9	106	70-130	
tert-Butylbenzene	ug/L	50	51.2	102	70-130	
Tetrachloroethene	ug/L	50	46.9	94	70-130	
Toluene	ug/L	50	50.7	101	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.4	105	70-130	
Trichloroethene	ug/L	50	48.1	96	70-130	
Trichlorofluoromethane	ug/L	50	65.6	131	62-133	
Vinyl chloride	ug/L	50	59.5	119	50-150	
1,2-Dichloroethane-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

QC Batch: MSV/27487
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92207080014

METHOD BLANK: 1236110
Matrix: Water
Associated Lab Samples: 92207080014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	07/07/14 18:40	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	07/07/14 18:40	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	07/07/14 18:40	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	07/07/14 18:40	
1,1-Dichloroethane	ug/L	<1.0	1.0	07/07/14 18:40	
1,1-Dichloroethene	ug/L	<1.0	1.0	07/07/14 18:40	
1,1-Dichloropropene	ug/L	<1.0	1.0	07/07/14 18:40	
1,2,3-Trichlorobenzene	ug/L	<1.0	1.0	07/07/14 18:40	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	07/07/14 18:40	
1,2,4-Trichlorobenzene	ug/L	<1.0	1.0	07/07/14 18:40	
1,2,4-Trimethylbenzene	ug/L	<1.0	1.0	07/07/14 18:40	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	2.0	07/07/14 18:40	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	07/07/14 18:40	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	07/07/14 18:40	
1,2-Dichloroethane	ug/L	<1.0	1.0	07/07/14 18:40	
1,2-Dichloropropane	ug/L	<1.0	1.0	07/07/14 18:40	
1,3,5-Trimethylbenzene	ug/L	<1.0	1.0	07/07/14 18:40	
1,3-Dichlorobenzene	ug/L	<1.0	1.0	07/07/14 18:40	
1,3-Dichloropropane	ug/L	<1.0	1.0	07/07/14 18:40	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	07/07/14 18:40	
1,4-Dioxane (p-Dioxane)	ug/L	<150	150	07/07/14 18:40	
2,2-Dichloropropane	ug/L	<1.0	1.0	07/07/14 18:40	
2-Chlorotoluene	ug/L	<1.0	1.0	07/07/14 18:40	
4-Chlorotoluene	ug/L	<1.0	1.0	07/07/14 18:40	
Benzene	ug/L	<1.0	1.0	07/07/14 18:40	
Bromobenzene	ug/L	<1.0	1.0	07/07/14 18:40	
Bromochloromethane	ug/L	<1.0	1.0	07/07/14 18:40	
Bromodichloromethane	ug/L	<1.0	1.0	07/07/14 18:40	
Bromoform	ug/L	<1.0	1.0	07/07/14 18:40	
Bromomethane	ug/L	<2.0	2.0	07/07/14 18:40	
Carbon tetrachloride	ug/L	<1.0	1.0	07/07/14 18:40	
Chlorobenzene	ug/L	<1.0	1.0	07/07/14 18:40	
Chloroethane	ug/L	<1.0	1.0	07/07/14 18:40	
Chloroform	ug/L	<1.0	1.0	07/07/14 18:40	
Chloromethane	ug/L	<1.0	1.0	07/07/14 18:40	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	07/07/14 18:40	
Dibromochloromethane	ug/L	<1.0	1.0	07/07/14 18:40	
Dibromomethane	ug/L	<1.0	1.0	07/07/14 18:40	
Dichlorodifluoromethane	ug/L	<1.0	1.0	07/07/14 18:40	
Ethylbenzene	ug/L	<1.0	1.0	07/07/14 18:40	
Hexachloro-1,3-butadiene	ug/L	<1.0	1.0	07/07/14 18:40	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

METHOD BLANK: 1236110 Matrix: Water
Associated Lab Samples: 92207080014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	<1.0	1.0	07/07/14 18:40	
m&p-Xylene	ug/L	<2.0	2.0	07/07/14 18:40	
Methylene Chloride	ug/L	<2.0	2.0	07/07/14 18:40	
n-Butylbenzene	ug/L	<1.0	1.0	07/07/14 18:40	
n-Propylbenzene	ug/L	<1.0	1.0	07/07/14 18:40	
Naphthalene	ug/L	<1.0	1.0	07/07/14 18:40	
o-Xylene	ug/L	<1.0	1.0	07/07/14 18:40	
p-Isopropyltoluene	ug/L	<1.0	1.0	07/07/14 18:40	
sec-Butylbenzene	ug/L	<1.0	1.0	07/07/14 18:40	
Styrene	ug/L	<1.0	1.0	07/07/14 18:40	
tert-Butylbenzene	ug/L	<1.0	1.0	07/07/14 18:40	
Tetrachloroethene	ug/L	<1.0	1.0	07/07/14 18:40	
Toluene	ug/L	<1.0	1.0	07/07/14 18:40	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	07/07/14 18:40	
Trichloroethene	ug/L	<1.0	1.0	07/07/14 18:40	
Trichlorofluoromethane	ug/L	<1.0	1.0	07/07/14 18:40	
Vinyl chloride	ug/L	<1.0	1.0	07/07/14 18:40	
1,2-Dichloroethane-d4 (S)	%	105	70-130	07/07/14 18:40	
4-Bromofluorobenzene (S)	%	97	70-130	07/07/14 18:40	
Toluene-d8 (S)	%	102	70-130	07/07/14 18:40	

LABORATORY CONTROL SAMPLE: 1236111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.4	97	70-130	
1,1,1-Trichloroethane	ug/L	50	51.6	103	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.5	101	70-130	
1,1,2-Trichloroethane	ug/L	50	51.8	104	70-130	
1,1-Dichloroethane	ug/L	50	47.8	96	70-130	
1,1-Dichloroethene	ug/L	50	51.1	102	70-132	
1,1-Dichloropropene	ug/L	50	54.5	109	70-130	
1,2,3-Trichlorobenzene	ug/L	50	56.1	112	70-135	
1,2,3-Trichloropropane	ug/L	50	51.2	102	70-130	
1,2,4-Trichlorobenzene	ug/L	50	56.8	114	70-134	
1,2,4-Trimethylbenzene	ug/L	50	53.7	107	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.1	102	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	54.9	110	70-130	
1,2-Dichlorobenzene	ug/L	50	51.8	104	70-130	
1,2-Dichloroethane	ug/L	50	47.0	94	70-130	
1,2-Dichloropropane	ug/L	50	49.7	99	70-130	
1,3,5-Trimethylbenzene	ug/L	50	52.8	106	70-130	
1,3-Dichlorobenzene	ug/L	50	49.8	100	70-130	
1,3-Dichloropropane	ug/L	50	52.1	104	70-130	
1,4-Dichlorobenzene	ug/L	50	48.8	98	70-130	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

LABORATORY CONTROL SAMPLE: 1236111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	1440	144	71-125	L3
2,2-Dichloropropane	ug/L	50	53.4	107	58-145	
2-Chlorotoluene	ug/L	50	48.7	97	70-130	
4-Chlorotoluene	ug/L	50	49.2	98	70-130	
Benzene	ug/L	50	51.0	102	70-130	
Bromobenzene	ug/L	50	50.4	101	70-130	
Bromochloromethane	ug/L	50	54.2	108	70-130	
Bromodichloromethane	ug/L	50	51.5	103	70-130	
Bromoform	ug/L	50	46.3	93	70-130	
Bromomethane	ug/L	50	46.0	92	54-130	
Carbon tetrachloride	ug/L	50	50.5	101	70-132	
Chlorobenzene	ug/L	50	49.2	98	70-130	
Chloroethane	ug/L	50	38.2	76	64-134	
Chloroform	ug/L	50	46.8	94	70-130	
Chloromethane	ug/L	50	51.0	102	64-130	
cis-1,2-Dichloroethene	ug/L	50	48.2	96	70-131	
Dibromochloromethane	ug/L	50	47.7	95	70-130	
Dibromomethane	ug/L	50	48.1	96	70-131	
Dichlorodifluoromethane	ug/L	50	41.7	83	56-130	
Ethylbenzene	ug/L	50	50.9	102	70-130	
Hexachloro-1,3-butadiene	ug/L	50	57.8	116	70-130	
Isopropylbenzene (Cumene)	ug/L	50	54.6	109	70-130	
m&p-Xylene	ug/L	100	102	102	70-130	
Methylene Chloride	ug/L	50	54.2	108	63-130	
n-Butylbenzene	ug/L	50	56.4	113	70-130	
n-Propylbenzene	ug/L	50	51.2	102	70-130	
Naphthalene	ug/L	50	55.6	111	70-138	
o-Xylene	ug/L	50	52.5	105	70-130	
p-Isopropyltoluene	ug/L	50	55.7	111	70-130	
sec-Butylbenzene	ug/L	50	54.1	108	70-130	
Styrene	ug/L	50	54.9	110	70-130	
tert-Butylbenzene	ug/L	50	53.6	107	70-130	
Tetrachloroethene	ug/L	50	55.9	112	70-130	
Toluene	ug/L	50	49.3	99	70-130	
trans-1,2-Dichloroethene	ug/L	50	49.9	100	70-130	
Trichloroethene	ug/L	50	53.2	106	70-130	
Trichlorofluoromethane	ug/L	50	47.7	95	62-133	
Vinyl chloride	ug/L	50	50.2	100	50-150	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			97	70-130	

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

QC Batch: MSV/27427 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92207080011, 92207080012, 92207080015, 92207080016, 92207080017

METHOD BLANK: 1233314 Matrix: Water
Associated Lab Samples: 92207080011, 92207080012, 92207080015, 92207080016, 92207080017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<2.0	2.0	07/01/14 13:25	
1,2-Dichloroethane-d4 (S)	%	120	50-150	07/01/14 13:25	
Toluene-d8 (S)	%	73	50-150	07/01/14 13:25	

LABORATORY CONTROL SAMPLE: 1233315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	19.1	96	71-125	
1,2-Dichloroethane-d4 (S)	%			112	50-150	
Toluene-d8 (S)	%			74	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1233316 1233317

Parameter	Units	92206266001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	18.3	20.2	91	101	50-150	10	
1,2-Dichloroethane-d4 (S)	%						133	128	50-150		
Toluene-d8 (S)	%						72	72	50-150		

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QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

QC Batch: MSV/27430
QC Batch Method: EPA 8260B Mod.
Analysis Method: EPA 8260B Mod.
Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92207080018, 92207080020

METHOD BLANK: 1233613 Matrix: Water
Associated Lab Samples: 92207080018, 92207080020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<2.0	2.0	07/01/14 13:03	
1,2-Dichloroethane-d4 (S)	%	113	50-150	07/01/14 13:03	
Toluene-d8 (S)	%	74	50-150	07/01/14 13:03	

LABORATORY CONTROL SAMPLE: 1233614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	20.1	100	71-125	
1,2-Dichloroethane-d4 (S)	%			109	50-150	
Toluene-d8 (S)	%			74	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1233615 1233616

Parameter	Units	92206266004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	14.9	19.3	74	96	50-150	26	
1,2-Dichloroethane-d4 (S)	%						124	120	50-150		
Toluene-d8 (S)	%						70	69	50-150		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

QC Batch: MSV/27451 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92207080010, 92207080023

METHOD BLANK: 1235295 Matrix: Water
Associated Lab Samples: 92207080010, 92207080023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<2.0	2.0	07/03/14 15:25	
1,2-Dichloroethane-d4 (S)	%	80	50-150	07/03/14 15:25	
Toluene-d8 (S)	%	89	50-150	07/03/14 15:25	

LABORATORY CONTROL SAMPLE: 1235296

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	22.6	113	71-125	
1,2-Dichloroethane-d4 (S)	%			97	50-150	
Toluene-d8 (S)	%			93	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1235297 1235298

Parameter	Units	92206265006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	22.1	21.9	110	109	50-150	1	
1,2-Dichloroethane-d4 (S)	%						146	107	50-150		
Toluene-d8 (S)	%						85	86	50-150		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

LOD - Limit of Detection.

LOQ - Limit of Quantitation.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: THERMO KING LOUISVILLE
Pace Project No.: 92207080

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92207080001	**MB#2**	EPA 8260	MSV/27448		
92207080002	**SEEP H**	EPA 8260	MSV/27381		
92207080003	**SEEP G**	EPA 8260	MSV/27381		
92207080004	**SEEP #2**	EPA 8260	MSV/27381		
92207080005	**SEEP L**	EPA 8260	MSV/27381		
92207080006	**MB#3**	EPA 8260	MSV/27381		
92207080007	**MB#15**	EPA 8260	MSV/27381		
92207080008	**MB#5**	EPA 8260	MSV/27381		
92207080009	**DUP-1**	EPA 8260	MSV/27405		
92207080010	**MW-20**	EPA 8260	MSV/27405		
92207080011	**MW-27**	EPA 8260	MSV/27405		
92207080012	**MW-28**	EPA 8260	MSV/27405		
92207080013	**MW-3**	EPA 8260	MSV/27405		
92207080014	**MW-22**	EPA 8260	MSV/27487		
92207080015	**MW-5**	EPA 8260	MSV/27405		
92207080016	**DUP-2**	EPA 8260	MSV/27405		
92207080017	**MW-14**	EPA 8260	MSV/27405		
92207080018	**MW-25**	EPA 8260	MSV/27405		
92207080019	**MW-10**	EPA 8260	MSV/27448		
92207080020	**MW-19**	EPA 8260	MSV/27405		
92207080021	**PURGE WATER DRUMS**	EPA 8260	MSV/27448		
92207080022	**TRIP BLANK**	EPA 8260	MSV/27405		
92207080023	**EB-1**	EPA 8260	MSV/27405		
92207080010	**MW-20**	EPA 8260B Mod.	MSV/27451		
92207080011	**MW-27**	EPA 8260B Mod.	MSV/27427		
92207080012	**MW-28**	EPA 8260B Mod.	MSV/27427		
92207080015	**MW-5**	EPA 8260B Mod.	MSV/27427		
92207080016	**DUP-2**	EPA 8260B Mod.	MSV/27427		
92207080017	**MW-14**	EPA 8260B Mod.	MSV/27427		
92207080018	**MW-25**	EPA 8260B Mod.	MSV/27430		
92207080020	**MW-19**	EPA 8260B Mod.	MSV/27430		
92207080023	**EB-1**	EPA 8260B Mod.	MSV/27451		

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Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: April 07. 2014 Page 1 of 2
	Document Number: **F-CHR-CS-003-rev.14**	Issuing Authority: Pace Huntersville Quality Office

Client Name: amec

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1102 T1401 **Type of Ice:** Wet Blue None ☒ Samples on ice, cooling process has begun

Temp Correction Factor **T1102**: No Correction **T1301**: No Correction

Corrected Cooler Temp.: 4.9 °C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: aus 6/27/14

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☒No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:_____	☒Yes ☐No ☐N/A	12. Received 6 extra HCL vials - water ID-EB-1 6/25/14 0950
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	13. 3 vials for site VOCs 3 vials for 8260 SIM 1.4-Dioxanne
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☒Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☒No ☐N/A	15.
Trip Blank Present:	☒Yes ☐No ☐N/A	16. trip blank has no date/time
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Mark Andrews Date/Time: 6/27/14

Comments/ Resolution: Mark instructed to analyze EB-1. Mark also informed the project name was Thermo King Louisville, KG.

SCURF Review: [signature] **Date:** 6/27/14

SRF Review: [signature] **Date:** 6/27/14

Place label here

WO#: 92207080

92207080

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

1797735

Section A Required Client Information:

Company:	AMEC
Address:	1075 Big Shanty Road Suite 100 Kennesaw, GA
Email To:	Rhonda Quinn
Phone:	770-421-3403 Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	
Copy To:	
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: Site VOCs 8260B	1,4 Dioxane SIM	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	WT	G	6-24-14	1510				3				✓					✓	✓		001
2	WT	G	6-24-14	1530				3				✓					✓	✓		002
3	WT	G	6-24-14	1555				3				✓					✓	✓		003
4	WT	G	6-24-14	1620				3				✓					✓	✓		004
5	WT	G	6-24-14	1725				3				✓					✓	✓		005
6	WT	G	6-24-14	1650				3				✓					✓	✓		006
7	WT	G	6-24-14	1705				3				✓					✓	✓		007
8	WT	G	6-24-14	1715				3				✓					✓	✓		008
9	WT	G	6-24-14	1200				3				✓					✓	✓		009
10	WT	G	6-25-14	1355				6				✓					✓✓	✓		010
11	WT	G	6-25-14	1640				6				✓					✓✓	✓		011
12	WT	G	6-25-14	1722				6				✓					✓✓	✓		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Mark Andrews AMEC	6-26-14	1846	Alyssa Swarling Pace	6/27/14	0800	4.9	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

1797736

Section A Required Client Information:

Company: AMEC
Address: 1075 Big Shanty Road Suite 100 Kennesaw, GA
Email To: Rhonda Quinn
Phone: 770-421-3400 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name:
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: Site VOCs 8260B 1,4 Dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-3	WT	G	6-25-14	1212				3				✓					✓		013
2	MW-22	WT	G	6-25-14	1510				3				✓					✓		014
3	MW-5	WT	G	6-25-14	1730				6				✓					✓✓		015
4	DUP-2	WT	G	6-26-14	1000				6				✓					✓✓		016
5	MW-14	WT	G	6-26-14	1135				6				✓					✓✓		017
6	MW-25	WT	G	6-26-14	1145				6				✓					✓✓		018
7	MW-10	WT	G	6-26-14	1328				3				✓					✓		019
8	MW-19	WT	G	6-26-14	1405				6				✓					✓✓		020
9	Purge water Drums	WT	C	6-26-14	0435				3				✓					✓		021
10	Trip Blank	WT							2				✓					✓		022
11	EB-1 per Mark Andrews KG 6/27/14			6/25/14	0950													XX		023
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Mark Andrews AMEC	6-26-14	1846	Alyssa Bowling Pace	6/27/14	0800	4.9	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Georgia Department of Natural Resources

Environmental Protection Division
2 Martin Luther King Jr. Drive SE, Suite 1456 East Tower, Atlanta, Georgia 30334-9000
Judson H. Turner, Director
(404) 656-4713
FAX: (404) 651-5778

22 August 2014

Cheryl Johnson, Quality Manager
Pace Analytical Services, Inc. - Huntersville
9800 Kincey Ave Suite 100
Huntersville NC 28078 Via e-mail: Cheryl.Johnson@pacelabs.com

RE: Laboratory Approval

Dear Ms. Johnson:

I have received your August 19, 2014 communication requesting approval of Pace Analytical Services to perform laboratory analytical work in Georgia. Please note that the Environmental Protection Division does not accredit or certify commercial laboratories (other than for drinking water) or issue certification, but rather we require commercial environmental laboratories to be approved under our Rules for Commercial Environmental Laboratories. You provided documentation that your laboratory is accredited (certificate #2931) by the Commonwealth of Virginia, Division of Consolidated Laboratory Services (hereinafter, "Virginia"), in accordance with NELAP. The accreditation is in the categories of Environmental Analyses for non-potable water and for solid and chemical materials. Please be aware that since Virginia has accredited you for Drinking Water analyses, Pace Analytical Services will need to seek reciprocity through Georgia EPD's Drinking Water Program to perform drinking water analytical work for Georgia clients.

After reviewing the information provided in your letter and the attached documentation from Virigina, approval is granted under our Rules for Commercial Environmental Laboratories for those individual parameters within the categories of (1) Non-potable Water and (2) Solid and Chemical Materials, which you are certified by Florida. This approval is valid through June 14, 2015, which is the expiration date of your accreditation. To be approved after that date, your accreditation must be renewed.

I trust this response meets your needs; should you require further information, please do not hesitate to call me at (404) 651-5155.

Sincerely,

Ted V. Jackson, Manager
Drinking Water Program
Georgia Environmental Protection Division

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

January 26, 2015

Rhonda Quinn
Amec
1075 Big Shanty Rd
Suite 100
Kennesaw, GA 30144

RE: Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Dear Rhonda Quinn:
Enclosed are the analytical results for sample(s) received by the laboratory on January 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Greg Wrenn, Amec

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CERTIFICATIONS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92233742001	**MW-22-11315**	Water	01/13/15 12:37	01/16/15 09:45
92233742002	**MW-10-11315**	Water	01/13/15 13:52	01/16/15 09:45
92233742003	**SEEPH-11415**	Water	01/14/15 13:10	01/16/15 09:45
92233742004	**SEEPMASON BRANCH #2-11415**	Water	01/14/15 12:55	01/16/15 09:45
92233742005	**SEEPG-11415**	Water	01/14/15 13:25	01/16/15 09:45
92233742006	**SEEP#2-11415**	Water	01/14/15 13:45	01/16/15 09:45
92233742007	**SEEPI-11415**	Water	01/14/15 14:00	01/16/15 09:45
92233742008	**SEEPB-11415**	Water	01/14/15 14:20	01/16/15 09:45
92233742009	**SEEPL-11415**	Water	01/14/15 14:45	01/16/15 09:45
92233742010	**MB#5-11415**	Water	01/14/15 15:10	01/16/15 09:45
92233742011	**MB#16-11415**	Water	01/14/15 15:25	01/16/15 09:45
92233742012	**MB#3-11415**	Water	01/14/15 15:50	01/16/15 09:45
92233742013	**MB#15-11415**	Water	01/14/15 16:05	01/16/15 09:45
92233742014	**MW-3-11315**	Water	01/13/15 18:00	01/16/15 09:45
92233742015	**TRIP**	Water	01/13/15 00:00	01/16/15 09:45
92233742016	**MW-27-11315**	Water	01/13/15 15:02	01/16/15 09:45
92233742017	**MW-28-11315**	Water	01/13/15 15:37	01/16/15 09:45
92233742018	**MW-25-11315**	Water	01/14/15 12:12	01/16/15 09:45
92233742019	**MW-5-11315**	Water	01/13/15 10:50	01/16/15 09:45
92233742020	**MW-20-11315**	Water	01/13/15 15:00	01/16/15 09:45
92233742021	**MW-14-11415**	Water	01/14/15 13:55	01/16/15 09:45
92233742022	**MW-19-11415**	Water	01/14/15 15:55	01/16/15 09:45

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92233742001	**MW-22-11315**	EPA 8260	GAW	61	PASI-C
92233742002	**MW-10-11315**	EPA 8260	GAW	61	PASI-C
92233742003	**SEEPH-11415**	EPA 8260	GAW	61	PASI-C
92233742004	**SEEPMASON BRANCH #2-11415**	EPA 8260	GAW	61	PASI-C
92233742005	**SEEPG-11415**	EPA 8260	GAW	61	PASI-C
92233742006	**SEEP#2-11415**	EPA 8260	GAW	61	PASI-C
92233742007	**SEEPI-11415**	EPA 8260	GAW	61	PASI-C
92233742008	**SEEPB-11415**	EPA 8260	GAW	61	PASI-C
92233742009	**SEEPL-11415**	EPA 8260	GAW	61	PASI-C
92233742010	**MB#5-11415**	EPA 8260	GAW	61	PASI-C
92233742011	**MB#16-11415**	EPA 8260	GAW	61	PASI-C
92233742012	**MB#3-11415**	EPA 8260	GAW	61	PASI-C
92233742013	**MB#15-11415**	EPA 8260	GAW	61	PASI-C
92233742014	**MW-3-11315**	EPA 8260	GAW	61	PASI-C
92233742015	**TRIP**	EPA 8260	GAW	61	PASI-C
92233742016	**MW-27-11315**	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92233742017	**MW-28-11315**	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92233742018	**MW-25-11315**	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92233742019	**MW-5-11315**	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92233742020	**MW-20-11315**	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92233742021	**MW-14-11415**	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92233742022	**MW-19-11415**	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C

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SUMMARY OF DETECTION

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92233742002	**MW-10-11315**					
EPA 8260	Chloroform	1.5	ug/L	1.0	01/22/15 23:44	
EPA 8260	1,1-Dichloroethene	0.57J	ug/L	1.0	01/22/15 23:44	
EPA 8260	Trichloroethene	1.9	ug/L	1.0	01/22/15 23:44	
92233742003	**SEEPH-11415**					
EPA 8260	Chloroform	1.3J	ug/L	2.0	01/23/15 13:42	
EPA 8260	1,1-Dichloroethene	25.8	ug/L	2.0	01/23/15 13:42	
EPA 8260	cis-1,2-Dichloroethene	33.8	ug/L	2.0	01/23/15 13:42	
EPA 8260	1,1,1-Trichloroethane	3.1	ug/L	2.0	01/23/15 13:42	
EPA 8260	Trichloroethene	359	ug/L	2.0	01/23/15 13:42	
92233742004	**SEEPMASON BRANCH #2-11415**					
EPA 8260	Chloroethane	0.67J	ug/L	1.0	01/23/15 00:01	
EPA 8260	1,1-Dichloroethane	3.2	ug/L	1.0	01/23/15 00:01	
EPA 8260	cis-1,2-Dichloroethene	3.8	ug/L	1.0	01/23/15 00:01	
EPA 8260	Vinyl chloride	15.0	ug/L	1.0	01/23/15 00:01	
92233742005	**SEEPG-11415**					
EPA 8260	1,1-Dichloroethene	1.5	ug/L	1.0	01/23/15 00:17	
EPA 8260	cis-1,2-Dichloroethene	9.6	ug/L	1.0	01/23/15 00:17	
EPA 8260	Trichloroethene	2.4	ug/L	1.0	01/23/15 00:17	
92233742006	**SEEP#2-11415**					
EPA 8260	1,1-Dichloroethene	0.81J	ug/L	1.0	01/23/15 00:34	
EPA 8260	cis-1,2-Dichloroethene	3.9	ug/L	1.0	01/23/15 00:34	
EPA 8260	Trichloroethene	6.1	ug/L	1.0	01/23/15 00:34	
92233742007	**SEEPI-11415**					
EPA 8260	cis-1,2-Dichloroethene	0.49J	ug/L	1.0	01/23/15 00:51	
92233742008	**SEEPB-11415**					
EPA 8260	cis-1,2-Dichloroethene	9.3	ug/L	1.0	01/23/15 01:07	
EPA 8260	Ethylbenzene	0.61J	ug/L	1.0	01/23/15 01:07	
EPA 8260	Toluene	0.42J	ug/L	1.0	01/23/15 01:07	
EPA 8260	Trichloroethene	2.0	ug/L	1.0	01/23/15 01:07	
EPA 8260	Vinyl chloride	0.86J	ug/L	1.0	01/23/15 01:07	
92233742009	**SEEPL-11415**					
EPA 8260	cis-1,2-Dichloroethene	2.4	ug/L	1.0	01/23/15 01:24	
EPA 8260	Trichloroethene	1.5	ug/L	1.0	01/23/15 01:24	
92233742014	**MW-3-11315**					
EPA 8260	Chloroform	3.7	ug/L	1.0	01/23/15 16:13	
92233742016	**MW-27-11315**					
EPA 8260	1,1-Dichloroethene	2.2	ug/L	1.0	01/23/15 16:29	
EPA 8260	cis-1,2-Dichloroethene	11.4	ug/L	1.0	01/23/15 16:29	
EPA 8260	Trichloroethene	21.5	ug/L	1.0	01/23/15 16:29	
92233742017	**MW-28-11315**					
EPA 8260	1,1-Dichloroethene	2.7	ug/L	1.0	01/23/15 16:46	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92233742017	**MW-28-11315**					
EPA 8260	cis-1,2-Dichloroethene	20.1	ug/L	1.0	01/23/15 16:46	
EPA 8260	Trichloroethene	5.2	ug/L	1.0	01/23/15 16:46	
92233742018	**MW-25-11315**					
EPA 8260	cis-1,2-Dichloroethene	732	ug/L	40.0	01/23/15 12:18	
EPA 8260	Ethylbenzene	12.8J	ug/L	40.0	01/23/15 12:18	
EPA 8260	Naphthalene	36.1J	ug/L	40.0	01/23/15 12:18	
EPA 8260	Toluene	14.8J	ug/L	40.0	01/23/15 12:18	
EPA 8260	Trichloroethene	3280	ug/L	40.0	01/23/15 12:18	
92233742019	**MW-5-11315**					
EPA 8260	Chloroform	2.1J	ug/L	4.0	01/23/15 12:35	
EPA 8260	1,1-Dichloroethene	7.4	ug/L	4.0	01/23/15 12:35	
EPA 8260	cis-1,2-Dichloroethene	5.1	ug/L	4.0	01/23/15 12:35	
EPA 8260	Hexachloro-1,3-butadiene	6.0	ug/L	4.0	01/23/15 12:35	
EPA 8260	Naphthalene	1.6J	ug/L	4.0	01/23/15 12:35	
EPA 8260	1,1,1,2-Tetrachloroethane	3.6J	ug/L	4.0	01/23/15 12:35	
EPA 8260	Tetrachloroethene	3.5J	ug/L	4.0	01/23/15 12:35	
EPA 8260	Trichloroethene	654	ug/L	4.0	01/23/15 12:35	
92233742020	**MW-20-11315**					
EPA 8260	1,1-Dichloroethene	3.9	ug/L	2.5	01/23/15 12:52	
EPA 8260	cis-1,2-Dichloroethene	316	ug/L	2.5	01/23/15 12:52	
92233742021	**MW-14-11415**					
EPA 8260	1,1-Dichloroethene	46.8	ug/L	20.0	01/23/15 13:09	
EPA 8260	cis-1,2-Dichloroethene	189	ug/L	20.0	01/23/15 13:09	
EPA 8260	Trichloroethene	2060	ug/L	20.0	01/23/15 13:09	
92233742022	**MW-19-11415**					
EPA 8260	1,1-Dichloroethene	43.6	ug/L	40.0	01/23/15 13:25	
EPA 8260	cis-1,2-Dichloroethene	30.2J	ug/L	40.0	01/23/15 13:25	
EPA 8260	Trichloroethene	3280	ug/L	40.0	01/23/15 13:25	

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PROJECT NARRATIVE

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: AMEC Environment & Infrastructure
Date: January 26, 2015

General Information:
22 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/30078

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92233742013

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1375965)
  - Bromomethane
  - Carbon tetrachloride
  - Hexachloro-1,3-butadiene
  - Trichlorofluoromethane

QC Batch: MSV/30082

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92233742014

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1376046)
  - 1,1,1,2-Tetrachloroethane
  - 1,1,1-Trichloroethane
  - Bromomethane
  - Carbon tetrachloride

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PROJECT NARRATIVE

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: AMEC Environment & Infrastructure
Date: January 26, 2015

QC Batch: MSV/30082

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92233742014

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- Trichlorofluoromethane
- MSD (Lab ID: 1376047)
  - 1,1,1,2-Tetrachloroethane
  - 1,1,1-Trichloroethane
  - Carbon tetrachloride
  - Dibromomethane
  - Tetrachloroethene
  - Trichlorofluoromethane

R1: RPD value was outside control limits.

- MSD (Lab ID: 1376047)
  - 1,4-Dioxane (p-Dioxane)

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM
Client: AMEC Environment & Infrastructure
Date: January 26, 2015

General Information:
7 samples were analyzed for EPA 8260B Mod.. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-22-11315 **Lab ID: 92233742001** Collected: 01/13/15 12:37 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/22/15 23:27	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/22/15 23:27	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/22/15 23:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/22/15 23:27	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/22/15 23:27	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/22/15 23:27	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/22/15 23:27	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/22/15 23:27	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/22/15 23:27	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/22/15 23:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/22/15 23:27	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/22/15 23:27	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/22/15 23:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/22/15 23:27	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/22/15 23:27	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/22/15 23:27	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/22/15 23:27	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/22/15 23:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/22/15 23:27	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/22/15 23:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/22/15 23:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/22/15 23:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/22/15 23:27	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/22/15 23:27	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/22/15 23:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/22/15 23:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/22/15 23:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/22/15 23:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/22/15 23:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/22/15 23:27	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/22/15 23:27	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/22/15 23:27	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/22/15 23:27	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/22/15 23:27	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/22/15 23:27	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/22/15 23:27	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/22/15 23:27	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/22/15 23:27	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/22/15 23:27	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/22/15 23:27	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/22/15 23:27	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/22/15 23:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/22/15 23:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/22/15 23:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/22/15 23:27	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/22/15 23:27	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-22-11315 **Lab ID: 92233742001** Collected: 01/13/15 12:37 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/22/15 23:27	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/22/15 23:27	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/22/15 23:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/22/15 23:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/22/15 23:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/22/15 23:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/22/15 23:27	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/22/15 23:27	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/22/15 23:27	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/22/15 23:27	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/22/15 23:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/22/15 23:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		01/22/15 23:27	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		01/22/15 23:27	17060-07-0	
Toluene-d8 (S)	92	%	70-130		1		01/22/15 23:27	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-10-11315 **Lab ID: 92233742002** Collected: 01/13/15 13:52 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/22/15 23:44	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/22/15 23:44	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/22/15 23:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/22/15 23:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/22/15 23:44	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/22/15 23:44	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/22/15 23:44	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/22/15 23:44	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/22/15 23:44	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/22/15 23:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/22/15 23:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/22/15 23:44	75-00-3	
Chloroform	**1.5**	ug/L	1.0	0.14	1		01/22/15 23:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/22/15 23:44	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/22/15 23:44	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/22/15 23:44	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/22/15 23:44	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/22/15 23:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/22/15 23:44	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/22/15 23:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/22/15 23:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/22/15 23:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/22/15 23:44	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/22/15 23:44	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/22/15 23:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/22/15 23:44	107-06-2	
1,1-Dichloroethene	**0.57J**	ug/L	1.0	0.56	1		01/22/15 23:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/22/15 23:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/22/15 23:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/22/15 23:44	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/22/15 23:44	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/22/15 23:44	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/22/15 23:44	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/22/15 23:44	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/22/15 23:44	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/22/15 23:44	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/22/15 23:44	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/22/15 23:44	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/22/15 23:44	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/22/15 23:44	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/22/15 23:44	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/22/15 23:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/22/15 23:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/22/15 23:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/22/15 23:44	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/22/15 23:44	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-10-11315 **Lab ID: 92233742002** Collected: 01/13/15 13:52 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/22/15 23:44	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/22/15 23:44	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/22/15 23:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/22/15 23:44	79-00-5	
Trichloroethene	**1.9**	ug/L	1.0	0.47	1		01/22/15 23:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/22/15 23:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/22/15 23:44	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/22/15 23:44	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/22/15 23:44	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/22/15 23:44	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/22/15 23:44	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/22/15 23:44	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		01/22/15 23:44	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		01/22/15 23:44	17060-07-0	
Toluene-d8 (S)	91	%	70-130		1		01/22/15 23:44	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPH-11415 **Lab ID: 92233742003** Collected: 01/14/15 13:10 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.0	0.50	2		01/23/15 13:42	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		01/23/15 13:42	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		01/23/15 13:42	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		01/23/15 13:42	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		01/23/15 13:42	75-25-2	
Bromomethane	ND	ug/L	4.0	0.58	2		01/23/15 13:42	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		01/23/15 13:42	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		01/23/15 13:42	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		01/23/15 13:42	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		01/23/15 13:42	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		01/23/15 13:42	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		01/23/15 13:42	75-00-3	
Chloroform	**1.3J**	ug/L	2.0	0.28	2		01/23/15 13:42	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		01/23/15 13:42	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		01/23/15 13:42	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		01/23/15 13:42	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	4.0	2		01/23/15 13:42	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	0.42	2		01/23/15 13:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		01/23/15 13:42	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		01/23/15 13:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		01/23/15 13:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		01/23/15 13:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		01/23/15 13:42	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		01/23/15 13:42	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		01/23/15 13:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	0.24	2		01/23/15 13:42	107-06-2	
1,1-Dichloroethene	**25.8**	ug/L	2.0	1.1	2		01/23/15 13:42	75-35-4	
cis-1,2-Dichloroethene	**33.8**	ug/L	2.0	0.38	2		01/23/15 13:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		01/23/15 13:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		01/23/15 13:42	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		01/23/15 13:42	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		01/23/15 13:42	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		01/23/15 13:42	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	300	157	2		01/23/15 13:42	123-91-1	
Ethylbenzene	ND	ug/L	2.0	0.60	2		01/23/15 13:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.4	2		01/23/15 13:42	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		01/23/15 13:42	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		01/23/15 13:42	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1.9	2		01/23/15 13:42	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		01/23/15 13:42	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		01/23/15 13:42	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		01/23/15 13:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	0.66	2		01/23/15 13:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		01/23/15 13:42	79-34-5	
Tetrachloroethene	ND	ug/L	2.0	0.92	2		01/23/15 13:42	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		01/23/15 13:42	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPH-11415 **Lab ID: 92233742003** Collected: 01/14/15 13:10 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		01/23/15 13:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		01/23/15 13:42	120-82-1	
1,1,1-Trichloroethane	**3.1**	ug/L	2.0	0.96	2		01/23/15 13:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		01/23/15 13:42	79-00-5	
Trichloroethene	**359**	ug/L	2.0	0.94	2		01/23/15 13:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	0.40	2		01/23/15 13:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		01/23/15 13:42	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		01/23/15 13:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		01/23/15 13:42	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1.2	2		01/23/15 13:42	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		01/23/15 13:42	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		01/23/15 13:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		2		01/23/15 13:42	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		2		01/23/15 13:42	17060-07-0	
Toluene-d8 (S)	91	%	70-130		2		01/23/15 13:42	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPMASON BRANCH #2-11415 **Lab ID: 92233742004** Collected: 01/14/15 12:55 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 00:01	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:01	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 00:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 00:01	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 00:01	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 00:01	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 00:01	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 00:01	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 00:01	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 00:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 00:01	108-90-7	
Chloroethane	**0.67J**	ug/L	1.0	0.54	1		01/23/15 00:01	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 00:01	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 00:01	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 00:01	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 00:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 00:01	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 00:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 00:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 00:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 00:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 00:01	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 00:01	75-71-8	
1,1-Dichloroethane	**3.2**	ug/L	1.0	0.32	1		01/23/15 00:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 00:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/23/15 00:01	75-35-4	
cis-1,2-Dichloroethene	**3.8**	ug/L	1.0	0.19	1		01/23/15 00:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 00:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 00:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 00:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 00:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 00:01	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 00:01	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 00:01	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 00:01	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 00:01	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 00:01	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 00:01	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 00:01	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 00:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 00:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 00:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 00:01	127-18-4	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPMASON BRANCH #2-11415 **Lab ID: 92233742004** Collected: 01/14/15 12:55 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 00:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 00:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 00:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 00:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 00:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/23/15 00:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 00:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 00:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 00:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 00:01	108-67-8	
Vinyl chloride	**15.0**	ug/L	1.0	0.62	1		01/23/15 00:01	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 00:01	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 00:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/23/15 00:01	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		01/23/15 00:01	17060-07-0	
Toluene-d8 (S)	91	%	70-130		1		01/23/15 00:01	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPG-11415 **Lab ID: 92233742005** Collected: 01/14/15 13:25 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 00:17	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:17	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 00:17	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 00:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 00:17	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 00:17	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 00:17	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 00:17	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 00:17	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 00:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 00:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 00:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 00:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 00:17	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 00:17	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 00:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 00:17	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 00:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 00:17	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 00:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 00:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 00:17	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 00:17	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 00:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 00:17	107-06-2	
1,1-Dichloroethene	**1.5**	ug/L	1.0	0.56	1		01/23/15 00:17	75-35-4	
cis-1,2-Dichloroethene	**9.6**	ug/L	1.0	0.19	1		01/23/15 00:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 00:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 00:17	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 00:17	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 00:17	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 00:17	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 00:17	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 00:17	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 00:17	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 00:17	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 00:17	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 00:17	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 00:17	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 00:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 00:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 00:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 00:17	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 00:17	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPG-11415 **Lab ID: 92233742005** Collected: 01/14/15 13:25 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 00:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 00:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 00:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 00:17	79-00-5	
Trichloroethene	**2.4**	ug/L	1.0	0.47	1		01/23/15 00:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 00:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 00:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 00:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 00:17	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 00:17	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 00:17	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 00:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		01/23/15 00:17	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		01/23/15 00:17	17060-07-0	
Toluene-d8 (S)	91	%	70-130		1		01/23/15 00:17	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEP#2-11415 **Lab ID: 92233742006** Collected: 01/14/15 13:45 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 00:34	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:34	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 00:34	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 00:34	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 00:34	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 00:34	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 00:34	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 00:34	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 00:34	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 00:34	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 00:34	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 00:34	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 00:34	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 00:34	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 00:34	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 00:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 00:34	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 00:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 00:34	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 00:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 00:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 00:34	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 00:34	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 00:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 00:34	107-06-2	
1,1-Dichloroethene	**0.81J**	ug/L	1.0	0.56	1		01/23/15 00:34	75-35-4	
cis-1,2-Dichloroethene	**3.9**	ug/L	1.0	0.19	1		01/23/15 00:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 00:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 00:34	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 00:34	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 00:34	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 00:34	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 00:34	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 00:34	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 00:34	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 00:34	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 00:34	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 00:34	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 00:34	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 00:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 00:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 00:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 00:34	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 00:34	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEP#2-11415 **Lab ID: 92233742006** Collected: 01/14/15 13:45 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 00:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 00:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 00:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 00:34	79-00-5	
Trichloroethene	**6.1**	ug/L	1.0	0.47	1		01/23/15 00:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 00:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 00:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 00:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 00:34	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 00:34	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 00:34	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 00:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		01/23/15 00:34	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		01/23/15 00:34	17060-07-0	
Toluene-d8 (S)	91	%	70-130		1		01/23/15 00:34	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPI-11415 **Lab ID: 92233742007** Collected: 01/14/15 14:00 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 00:51	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:51	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 00:51	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 00:51	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 00:51	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 00:51	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 00:51	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 00:51	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 00:51	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 00:51	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 00:51	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 00:51	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 00:51	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 00:51	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 00:51	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 00:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 00:51	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 00:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 00:51	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 00:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 00:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 00:51	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 00:51	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 00:51	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 00:51	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/23/15 00:51	75-35-4	
cis-1,2-Dichloroethene	**0.49J**	ug/L	1.0	0.19	1		01/23/15 00:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 00:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 00:51	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 00:51	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 00:51	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 00:51	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 00:51	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 00:51	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 00:51	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 00:51	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 00:51	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 00:51	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 00:51	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 00:51	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 00:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 00:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 00:51	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 00:51	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 00:51	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPI-11415 **Lab ID: 92233742007** Collected: 01/14/15 14:00 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 00:51	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 00:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 00:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 00:51	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/23/15 00:51	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 00:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 00:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 00:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 00:51	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 00:51	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 00:51	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 00:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		01/23/15 00:51	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		1		01/23/15 00:51	17060-07-0	
Toluene-d8 (S)	92	%	70-130		1		01/23/15 00:51	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPB-11415 **Lab ID: 92233742008** Collected: 01/14/15 14:20 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 01:07	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:07	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 01:07	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 01:07	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 01:07	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 01:07	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 01:07	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 01:07	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 01:07	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 01:07	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 01:07	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 01:07	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 01:07	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 01:07	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 01:07	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 01:07	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 01:07	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 01:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 01:07	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 01:07	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 01:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 01:07	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 01:07	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 01:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 01:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/23/15 01:07	75-35-4	
cis-1,2-Dichloroethene	**9.3**	ug/L	1.0	0.19	1		01/23/15 01:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 01:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 01:07	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 01:07	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 01:07	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 01:07	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 01:07	123-91-1	
Ethylbenzene	**0.61J**	ug/L	1.0	0.30	1		01/23/15 01:07	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 01:07	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 01:07	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 01:07	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 01:07	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 01:07	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 01:07	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 01:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 01:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 01:07	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 01:07	127-18-4	
Toluene	**0.42J**	ug/L	1.0	0.26	1		01/23/15 01:07	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPB-11415 **Lab ID: 92233742008** Collected: 01/14/15 14:20 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 01:07	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 01:07	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 01:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 01:07	79-00-5	
Trichloroethene	**2.0**	ug/L	1.0	0.47	1		01/23/15 01:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 01:07	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 01:07	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 01:07	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 01:07	108-67-8	
Vinyl chloride	**0.86J**	ug/L	1.0	0.62	1		01/23/15 01:07	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 01:07	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 01:07	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/23/15 01:07	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		01/23/15 01:07	17060-07-0	
Toluene-d8 (S)	90	%	70-130		1		01/23/15 01:07	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPL-11415 **Lab ID: 92233742009** Collected: 01/14/15 14:45 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 01:24	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:24	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 01:24	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 01:24	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 01:24	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 01:24	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 01:24	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 01:24	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 01:24	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 01:24	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 01:24	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 01:24	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 01:24	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 01:24	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 01:24	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 01:24	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 01:24	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 01:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 01:24	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 01:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 01:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 01:24	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 01:24	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 01:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 01:24	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/23/15 01:24	75-35-4	
cis-1,2-Dichloroethene	**2.4**	ug/L	1.0	0.19	1		01/23/15 01:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 01:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 01:24	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 01:24	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 01:24	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 01:24	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 01:24	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:24	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 01:24	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 01:24	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 01:24	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 01:24	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 01:24	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 01:24	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 01:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 01:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 01:24	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 01:24	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 01:24	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: SEEPL-11415 **Lab ID: 92233742009** Collected: 01/14/15 14:45 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 01:24	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 01:24	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 01:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 01:24	79-00-5	
Trichloroethene	**1.5**	ug/L	1.0	0.47	1		01/23/15 01:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 01:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 01:24	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 01:24	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 01:24	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 01:24	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 01:24	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 01:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		01/23/15 01:24	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		01/23/15 01:24	17060-07-0	
Toluene-d8 (S)	92	%	70-130		1		01/23/15 01:24	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MB#5-11415 **Lab ID: 92233742010** Collected: 01/14/15 15:10 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 01:41	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:41	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 01:41	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 01:41	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 01:41	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 01:41	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 01:41	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 01:41	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 01:41	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 01:41	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 01:41	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 01:41	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 01:41	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 01:41	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 01:41	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 01:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 01:41	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 01:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 01:41	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 01:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 01:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 01:41	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 01:41	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 01:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 01:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/23/15 01:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/23/15 01:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 01:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 01:41	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 01:41	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 01:41	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 01:41	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 01:41	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:41	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 01:41	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 01:41	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 01:41	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 01:41	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 01:41	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 01:41	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 01:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 01:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 01:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 01:41	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 01:41	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MB#5-11415 **Lab ID: 92233742010** Collected: 01/14/15 15:10 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 01:41	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 01:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 01:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 01:41	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/23/15 01:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 01:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 01:41	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 01:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 01:41	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 01:41	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 01:41	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 01:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/23/15 01:41	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		01/23/15 01:41	17060-07-0	
Toluene-d8 (S)	93	%	70-130		1		01/23/15 01:41	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MB#16-11415 **Lab ID: 92233742011** Collected: 01/14/15 15:25 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 01:58	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:58	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 01:58	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 01:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 01:58	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 01:58	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 01:58	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 01:58	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 01:58	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 01:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 01:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 01:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 01:58	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 01:58	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 01:58	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 01:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 01:58	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 01:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 01:58	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 01:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 01:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 01:58	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 01:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 01:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 01:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/23/15 01:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/23/15 01:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 01:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 01:58	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 01:58	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 01:58	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 01:58	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 01:58	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 01:58	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 01:58	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 01:58	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 01:58	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 01:58	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 01:58	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 01:58	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 01:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 01:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 01:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 01:58	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 01:58	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MB#16-11415 **Lab ID: 92233742011** Collected: 01/14/15 15:25 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 01:58	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 01:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 01:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 01:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/23/15 01:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 01:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 01:58	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 01:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 01:58	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 01:58	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 01:58	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 01:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/23/15 01:58	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		01/23/15 01:58	17060-07-0	
Toluene-d8 (S)	92	%	70-130		1		01/23/15 01:58	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MB#3-11415 **Lab ID: 92233742012** Collected: 01/14/15 15:50 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 02:15	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 02:15	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 02:15	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 02:15	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 02:15	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 02:15	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 02:15	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 02:15	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 02:15	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 02:15	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 02:15	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 02:15	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 02:15	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 02:15	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 02:15	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 02:15	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 02:15	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 02:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 02:15	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 02:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 02:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 02:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 02:15	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 02:15	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 02:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 02:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/23/15 02:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/23/15 02:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 02:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 02:15	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 02:15	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 02:15	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 02:15	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 02:15	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 02:15	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 02:15	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 02:15	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 02:15	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 02:15	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 02:15	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 02:15	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 02:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 02:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 02:15	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 02:15	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 02:15	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MB#3-11415 **Lab ID: 92233742012** Collected: 01/14/15 15:50 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 02:15	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 02:15	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 02:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 02:15	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/23/15 02:15	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 02:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 02:15	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 02:15	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 02:15	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 02:15	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 02:15	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 02:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		01/23/15 02:15	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		01/23/15 02:15	17060-07-0	
Toluene-d8 (S)	93	%	70-130		1		01/23/15 02:15	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MB#15-11415 **Lab ID: 92233742013** Collected: 01/14/15 16:05 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 02:48	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 02:48	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 02:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 02:48	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 02:48	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 02:48	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 02:48	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 02:48	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 02:48	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 02:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 02:48	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 02:48	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 02:48	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 02:48	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 02:48	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 02:48	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 02:48	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 02:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 02:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 02:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 02:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 02:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 02:48	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 02:48	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 02:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 02:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/23/15 02:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/23/15 02:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 02:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 02:48	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 02:48	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 02:48	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 02:48	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 02:48	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 02:48	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 02:48	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 02:48	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 02:48	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 02:48	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 02:48	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 02:48	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 02:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 02:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 02:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 02:48	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 02:48	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MB#15-11415 **Lab ID: 92233742013** Collected: 01/14/15 16:05 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 02:48	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 02:48	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 02:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 02:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/23/15 02:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 02:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 02:48	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 02:48	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 02:48	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 02:48	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 02:48	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 02:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		01/23/15 02:48	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		01/23/15 02:48	17060-07-0	
Toluene-d8 (S)	90	%	70-130		1		01/23/15 02:48	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-3-11315 **Lab ID: 92233742014** Collected: 01/13/15 18:00 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 16:13	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 16:13	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 16:13	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 16:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 16:13	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 16:13	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 16:13	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 16:13	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 16:13	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 16:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 16:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 16:13	75-00-3	
Chloroform	**3.7**	ug/L	1.0	0.14	1		01/23/15 16:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 16:13	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 16:13	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 16:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 16:13	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 16:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 16:13	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 16:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 16:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 16:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 16:13	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 16:13	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 16:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 16:13	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/23/15 16:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/23/15 16:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 16:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 16:13	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 16:13	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 16:13	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 16:13	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/23/15 16:13	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 16:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 16:13	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 16:13	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 16:13	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 16:13	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 16:13	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 16:13	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 16:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 16:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 16:13	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 16:13	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 16:13	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-3-11315 **Lab ID: 92233742014** Collected: 01/13/15 18:00 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 16:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 16:13	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 16:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 16:13	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/23/15 16:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 16:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 16:13	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 16:13	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 16:13	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 16:13	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 16:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 16:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		01/23/15 16:13	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		01/23/15 16:13	17060-07-0	
Toluene-d8 (S)	92	%	70-130		1		01/23/15 16:13	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: TRIP **Lab ID: 92233742015** Collected: 01/13/15 00:00 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/22/15 23:10	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/22/15 23:10	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/22/15 23:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/22/15 23:10	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/22/15 23:10	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/22/15 23:10	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/22/15 23:10	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/22/15 23:10	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/22/15 23:10	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/22/15 23:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/22/15 23:10	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/22/15 23:10	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/22/15 23:10	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/22/15 23:10	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/22/15 23:10	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/22/15 23:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/22/15 23:10	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/22/15 23:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/22/15 23:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/22/15 23:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/22/15 23:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/22/15 23:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/22/15 23:10	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/22/15 23:10	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/22/15 23:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/22/15 23:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		01/22/15 23:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		01/22/15 23:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/22/15 23:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/22/15 23:10	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/22/15 23:10	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/22/15 23:10	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/22/15 23:10	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		01/22/15 23:10	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/22/15 23:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/22/15 23:10	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/22/15 23:10	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/22/15 23:10	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/22/15 23:10	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/22/15 23:10	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/22/15 23:10	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/22/15 23:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/22/15 23:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/22/15 23:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/22/15 23:10	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/22/15 23:10	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: TRIP **Lab ID: 92233742015** Collected: 01/13/15 00:00 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/22/15 23:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/22/15 23:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/22/15 23:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/22/15 23:10	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		01/22/15 23:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/22/15 23:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/22/15 23:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/22/15 23:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/22/15 23:10	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/22/15 23:10	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/22/15 23:10	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/22/15 23:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		01/22/15 23:10	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		01/22/15 23:10	17060-07-0	
Toluene-d8 (S)	91	%	70-130		1		01/22/15 23:10	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-27-11315 **Lab ID: 92233742016** Collected: 01/13/15 15:02 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 16:29	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 16:29	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 16:29	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 16:29	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 16:29	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 16:29	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 16:29	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 16:29	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 16:29	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 16:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 16:29	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 16:29	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 16:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 16:29	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 16:29	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 16:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 16:29	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 16:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 16:29	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 16:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 16:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 16:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 16:29	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 16:29	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 16:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 16:29	107-06-2	
1,1-Dichloroethene	**2.2**	ug/L	1.0	0.56	1		01/23/15 16:29	75-35-4	
cis-1,2-Dichloroethene	**11.4**	ug/L	1.0	0.19	1		01/23/15 16:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 16:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 16:29	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 16:29	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 16:29	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 16:29	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 16:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 16:29	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 16:29	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 16:29	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 16:29	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 16:29	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 16:29	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 16:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 16:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 16:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 16:29	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 16:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 16:29	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-27-11315 **Lab ID: 92233742016** Collected: 01/13/15 15:02 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 16:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 16:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 16:29	79-00-5	
Trichloroethene	**21.5**	ug/L	1.0	0.47	1		01/23/15 16:29	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 16:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 16:29	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 16:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 16:29	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 16:29	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 16:29	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 16:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		01/23/15 16:29	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		01/23/15 16:29	17060-07-0	
Toluene-d8 (S)	91	%	70-130		1		01/23/15 16:29	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/22/15 16:38	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%	50-150		1		01/22/15 16:38	17060-07-0	
Toluene-d8 (S)	84	%	50-150		1		01/22/15 16:38	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-28-11315 **Lab ID: 92233742017** Collected: 01/13/15 15:37 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		01/23/15 16:46	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		01/23/15 16:46	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		01/23/15 16:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		01/23/15 16:46	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		01/23/15 16:46	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		01/23/15 16:46	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		01/23/15 16:46	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		01/23/15 16:46	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		01/23/15 16:46	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		01/23/15 16:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		01/23/15 16:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		01/23/15 16:46	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		01/23/15 16:46	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		01/23/15 16:46	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		01/23/15 16:46	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		01/23/15 16:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		01/23/15 16:46	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		01/23/15 16:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		01/23/15 16:46	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		01/23/15 16:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		01/23/15 16:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		01/23/15 16:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 16:46	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		01/23/15 16:46	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		01/23/15 16:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		01/23/15 16:46	107-06-2	
1,1-Dichloroethene	**2.7**	ug/L	1.0	0.56	1		01/23/15 16:46	75-35-4	
cis-1,2-Dichloroethene	**20.1**	ug/L	1.0	0.19	1		01/23/15 16:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		01/23/15 16:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		01/23/15 16:46	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		01/23/15 16:46	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		01/23/15 16:46	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		01/23/15 16:46	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/23/15 16:46	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		01/23/15 16:46	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		01/23/15 16:46	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		01/23/15 16:46	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		01/23/15 16:46	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		01/23/15 16:46	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		01/23/15 16:46	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		01/23/15 16:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		01/23/15 16:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		01/23/15 16:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		01/23/15 16:46	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		01/23/15 16:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		01/23/15 16:46	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-28-11315 **Lab ID: 92233742017** Collected: 01/13/15 15:37 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		01/23/15 16:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		01/23/15 16:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		01/23/15 16:46	79-00-5	
Trichloroethene	**5.2**	ug/L	1.0	0.47	1		01/23/15 16:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		01/23/15 16:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		01/23/15 16:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		01/23/15 16:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		01/23/15 16:46	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		01/23/15 16:46	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		01/23/15 16:46	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		01/23/15 16:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		01/23/15 16:46	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		01/23/15 16:46	17060-07-0	
Toluene-d8 (S)	91	%	70-130		1		01/23/15 16:46	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/22/15 16:58	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	121	%	50-150		1		01/22/15 16:58	17060-07-0	
Toluene-d8 (S)	82	%	50-150		1		01/22/15 16:58	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-25-11315 **Lab ID: 92233742018** Collected: 01/14/15 12:12 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	40.0	10.0	40		01/23/15 12:18	71-43-2	
Bromobenzene	ND	ug/L	40.0	12.0	40		01/23/15 12:18	108-86-1	
Bromochloromethane	ND	ug/L	40.0	6.8	40		01/23/15 12:18	74-97-5	
Bromodichloromethane	ND	ug/L	40.0	7.2	40		01/23/15 12:18	75-27-4	
Bromoform	ND	ug/L	40.0	10.4	40		01/23/15 12:18	75-25-2	
Bromomethane	ND	ug/L	80.0	11.6	40		01/23/15 12:18	74-83-9	
n-Butylbenzene	ND	ug/L	40.0	16.4	40		01/23/15 12:18	104-51-8	
sec-Butylbenzene	ND	ug/L	40.0	15.2	40		01/23/15 12:18	135-98-8	
tert-Butylbenzene	ND	ug/L	40.0	16.0	40		01/23/15 12:18	98-06-6	
Carbon tetrachloride	ND	ug/L	40.0	10.0	40		01/23/15 12:18	56-23-5	
Chlorobenzene	ND	ug/L	40.0	9.2	40		01/23/15 12:18	108-90-7	
Chloroethane	ND	ug/L	40.0	21.6	40		01/23/15 12:18	75-00-3	
Chloroform	ND	ug/L	40.0	5.6	40		01/23/15 12:18	67-66-3	
Chloromethane	ND	ug/L	40.0	4.4	40		01/23/15 12:18	74-87-3	
2-Chlorotoluene	ND	ug/L	40.0	14.0	40		01/23/15 12:18	95-49-8	
4-Chlorotoluene	ND	ug/L	40.0	12.4	40		01/23/15 12:18	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	80.0	80.0	40		01/23/15 12:18	96-12-8	
Dibromochloromethane	ND	ug/L	40.0	8.4	40		01/23/15 12:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	40.0	10.8	40		01/23/15 12:18	106-93-4	
Dibromomethane	ND	ug/L	40.0	8.4	40		01/23/15 12:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	40.0	12.0	40		01/23/15 12:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	40.0	9.6	40		01/23/15 12:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	40.0	13.2	40		01/23/15 12:18	106-46-7	
Dichlorodifluoromethane	ND	ug/L	40.0	8.4	40		01/23/15 12:18	75-71-8	
1,1-Dichloroethane	ND	ug/L	40.0	12.8	40		01/23/15 12:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	40.0	4.8	40		01/23/15 12:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	40.0	22.4	40		01/23/15 12:18	75-35-4	
cis-1,2-Dichloroethene	**732**	ug/L	40.0	7.6	40		01/23/15 12:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	40.0	19.6	40		01/23/15 12:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	40.0	10.8	40		01/23/15 12:18	78-87-5	
1,3-Dichloropropane	ND	ug/L	40.0	11.2	40		01/23/15 12:18	142-28-9	
2,2-Dichloropropane	ND	ug/L	40.0	5.2	40		01/23/15 12:18	594-20-7	
1,1-Dichloropropene	ND	ug/L	40.0	19.6	40		01/23/15 12:18	563-58-6	
Ethylbenzene	**12.8J**	ug/L	40.0	12.0	40		01/23/15 12:18	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	40.0	28.4	40		01/23/15 12:18	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	40.0	16.0	40		01/23/15 12:18	98-82-8	
p-Isopropyltoluene	ND	ug/L	40.0	12.4	40		01/23/15 12:18	99-87-6	
Methylene Chloride	ND	ug/L	80.0	38.8	40		01/23/15 12:18	75-09-2	
Naphthalene	**36.1J**	ug/L	40.0	9.6	40		01/23/15 12:18	91-20-3	
n-Propylbenzene	ND	ug/L	40.0	16.8	40		01/23/15 12:18	103-65-1	
Styrene	ND	ug/L	40.0	10.4	40		01/23/15 12:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	40.0	13.2	40		01/23/15 12:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	40.0	16.0	40		01/23/15 12:18	79-34-5	
Tetrachloroethene	ND	ug/L	40.0	18.4	40		01/23/15 12:18	127-18-4	
Toluene	**14.8J**	ug/L	40.0	10.4	40		01/23/15 12:18	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	40.0	13.2	40		01/23/15 12:18	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-25-11315 **Lab ID: 92233742018** Collected: 01/14/15 12:12 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	40.0	14.0	40		01/23/15 12:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	40.0	19.2	40		01/23/15 12:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	40.0	11.6	40		01/23/15 12:18	79-00-5	
Trichloroethene	**3280**	ug/L	40.0	18.8	40		01/23/15 12:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	40.0	8.0	40		01/23/15 12:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	40.0	16.4	40		01/23/15 12:18	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	40.0	12.4	40		01/23/15 12:18	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	40.0	14.4	40		01/23/15 12:18	108-67-8	
Vinyl chloride	ND	ug/L	40.0	24.8	40		01/23/15 12:18	75-01-4	
m&p-Xylene	ND	ug/L	80.0	26.4	40		01/23/15 12:18	179601-23-1	
o-Xylene	ND	ug/L	40.0	9.2	40		01/23/15 12:18	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		40		01/23/15 12:18	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		40		01/23/15 12:18	17060-07-0	
Toluene-d8 (S)	88	%	70-130		40		01/23/15 12:18	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/22/15 17:18	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	109	%	50-150		1		01/22/15 17:18	17060-07-0	
Toluene-d8 (S)	81	%	50-150		1		01/22/15 17:18	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-5-11315 **Lab ID: 92233742019** Collected: 01/13/15 10:50 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	4.0	1.0	4		01/23/15 12:35	71-43-2	
Bromobenzene	ND	ug/L	4.0	1.2	4		01/23/15 12:35	108-86-1	
Bromochloromethane	ND	ug/L	4.0	0.68	4		01/23/15 12:35	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	0.72	4		01/23/15 12:35	75-27-4	
Bromoform	ND	ug/L	4.0	1.0	4		01/23/15 12:35	75-25-2	
Bromomethane	ND	ug/L	8.0	1.2	4		01/23/15 12:35	74-83-9	
n-Butylbenzene	ND	ug/L	4.0	1.6	4		01/23/15 12:35	104-51-8	
sec-Butylbenzene	ND	ug/L	4.0	1.5	4		01/23/15 12:35	135-98-8	
tert-Butylbenzene	ND	ug/L	4.0	1.6	4		01/23/15 12:35	98-06-6	
Carbon tetrachloride	ND	ug/L	4.0	1.0	4		01/23/15 12:35	56-23-5	
Chlorobenzene	ND	ug/L	4.0	0.92	4		01/23/15 12:35	108-90-7	
Chloroethane	ND	ug/L	4.0	2.2	4		01/23/15 12:35	75-00-3	
Chloroform	**2.1J**	ug/L	4.0	0.56	4		01/23/15 12:35	67-66-3	
Chloromethane	ND	ug/L	4.0	0.44	4		01/23/15 12:35	74-87-3	
2-Chlorotoluene	ND	ug/L	4.0	1.4	4		01/23/15 12:35	95-49-8	
4-Chlorotoluene	ND	ug/L	4.0	1.2	4		01/23/15 12:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	8.0	8.0	4		01/23/15 12:35	96-12-8	
Dibromochloromethane	ND	ug/L	4.0	0.84	4		01/23/15 12:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	4.0	1.1	4		01/23/15 12:35	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.84	4		01/23/15 12:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	4.0	1.2	4		01/23/15 12:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	4.0	0.96	4		01/23/15 12:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	4.0	1.3	4		01/23/15 12:35	106-46-7	
Dichlorodifluoromethane	ND	ug/L	4.0	0.84	4		01/23/15 12:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	4.0	1.3	4		01/23/15 12:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	4.0	0.48	4		01/23/15 12:35	107-06-2	
1,1-Dichloroethene	**7.4**	ug/L	4.0	2.2	4		01/23/15 12:35	75-35-4	
cis-1,2-Dichloroethene	**5.1**	ug/L	4.0	0.76	4		01/23/15 12:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	4.0	2.0	4		01/23/15 12:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	4.0	1.1	4		01/23/15 12:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	4.0	1.1	4		01/23/15 12:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	0.52	4		01/23/15 12:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	4.0	2.0	4		01/23/15 12:35	563-58-6	
Ethylbenzene	ND	ug/L	4.0	1.2	4		01/23/15 12:35	100-41-4	
Hexachloro-1,3-butadiene	**6.0**	ug/L	4.0	2.8	4		01/23/15 12:35	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1.6	4		01/23/15 12:35	98-82-8	
p-Isopropyltoluene	ND	ug/L	4.0	1.2	4		01/23/15 12:35	99-87-6	
Methylene Chloride	ND	ug/L	8.0	3.9	4		01/23/15 12:35	75-09-2	
Naphthalene	**1.6J**	ug/L	4.0	0.96	4		01/23/15 12:35	91-20-3	
n-Propylbenzene	ND	ug/L	4.0	1.7	4		01/23/15 12:35	103-65-1	
Styrene	ND	ug/L	4.0	1.0	4		01/23/15 12:35	100-42-5	
1,1,1,2-Tetrachloroethane	**3.6J**	ug/L	4.0	1.3	4		01/23/15 12:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	4.0	1.6	4		01/23/15 12:35	79-34-5	
Tetrachloroethene	**3.5J**	ug/L	4.0	1.8	4		01/23/15 12:35	127-18-4	
Toluene	ND	ug/L	4.0	1.0	4		01/23/15 12:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1.3	4		01/23/15 12:35	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-5-11315 **Lab ID: 92233742019** Collected: 01/13/15 10:50 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1.4	4		01/23/15 12:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	4.0	1.9	4		01/23/15 12:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1.2	4		01/23/15 12:35	79-00-5	
Trichloroethene	**654**	ug/L	4.0	1.9	4		01/23/15 12:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	0.80	4		01/23/15 12:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1.6	4		01/23/15 12:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	4.0	1.2	4		01/23/15 12:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	4.0	1.4	4		01/23/15 12:35	108-67-8	
Vinyl chloride	ND	ug/L	4.0	2.5	4		01/23/15 12:35	75-01-4	
m&p-Xylene	ND	ug/L	8.0	2.6	4		01/23/15 12:35	179601-23-1	
o-Xylene	ND	ug/L	4.0	0.92	4		01/23/15 12:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		4		01/23/15 12:35	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130		4		01/23/15 12:35	17060-07-0	
Toluene-d8 (S)	91	%	70-130		4		01/23/15 12:35	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/22/15 17:39	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	150	%	50-150		1		01/22/15 17:39	17060-07-0	
Toluene-d8 (S)	77	%	50-150		1		01/22/15 17:39	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-20-11315 **Lab ID: 92233742020** Collected: 01/13/15 15:00 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.5	0.62	2.5		01/23/15 12:52	71-43-2	
Bromobenzene	ND	ug/L	2.5	0.75	2.5		01/23/15 12:52	108-86-1	
Bromochloromethane	ND	ug/L	2.5	0.42	2.5		01/23/15 12:52	74-97-5	
Bromodichloromethane	ND	ug/L	2.5	0.45	2.5		01/23/15 12:52	75-27-4	
Bromoform	ND	ug/L	2.5	0.65	2.5		01/23/15 12:52	75-25-2	
Bromomethane	ND	ug/L	5.0	0.72	2.5		01/23/15 12:52	74-83-9	
n-Butylbenzene	ND	ug/L	2.5	1.0	2.5		01/23/15 12:52	104-51-8	
sec-Butylbenzene	ND	ug/L	2.5	0.95	2.5		01/23/15 12:52	135-98-8	
tert-Butylbenzene	ND	ug/L	2.5	1.0	2.5		01/23/15 12:52	98-06-6	
Carbon tetrachloride	ND	ug/L	2.5	0.62	2.5		01/23/15 12:52	56-23-5	
Chlorobenzene	ND	ug/L	2.5	0.58	2.5		01/23/15 12:52	108-90-7	
Chloroethane	ND	ug/L	2.5	1.4	2.5		01/23/15 12:52	75-00-3	
Chloroform	ND	ug/L	2.5	0.35	2.5		01/23/15 12:52	67-66-3	
Chloromethane	ND	ug/L	2.5	0.28	2.5		01/23/15 12:52	74-87-3	
2-Chlorotoluene	ND	ug/L	2.5	0.88	2.5		01/23/15 12:52	95-49-8	
4-Chlorotoluene	ND	ug/L	2.5	0.78	2.5		01/23/15 12:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	5.0	2.5		01/23/15 12:52	96-12-8	
Dibromochloromethane	ND	ug/L	2.5	0.52	2.5		01/23/15 12:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.5	0.68	2.5		01/23/15 12:52	106-93-4	
Dibromomethane	ND	ug/L	2.5	0.52	2.5		01/23/15 12:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.5	0.75	2.5		01/23/15 12:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.5	0.60	2.5		01/23/15 12:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.5	0.82	2.5		01/23/15 12:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.5	0.52	2.5		01/23/15 12:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.5	0.80	2.5		01/23/15 12:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.5	0.30	2.5		01/23/15 12:52	107-06-2	
1,1-Dichloroethene	**3.9**	ug/L	2.5	1.4	2.5		01/23/15 12:52	75-35-4	
cis-1,2-Dichloroethene	**316**	ug/L	2.5	0.48	2.5		01/23/15 12:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.5	1.2	2.5		01/23/15 12:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.5	0.68	2.5		01/23/15 12:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.5	0.70	2.5		01/23/15 12:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.5	0.32	2.5		01/23/15 12:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.5	1.2	2.5		01/23/15 12:52	563-58-6	
Ethylbenzene	ND	ug/L	2.5	0.75	2.5		01/23/15 12:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.5	1.8	2.5		01/23/15 12:52	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.5	1.0	2.5		01/23/15 12:52	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.5	0.78	2.5		01/23/15 12:52	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.4	2.5		01/23/15 12:52	75-09-2	
Naphthalene	ND	ug/L	2.5	0.60	2.5		01/23/15 12:52	91-20-3	
n-Propylbenzene	ND	ug/L	2.5	1.0	2.5		01/23/15 12:52	103-65-1	
Styrene	ND	ug/L	2.5	0.65	2.5		01/23/15 12:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.5	0.82	2.5		01/23/15 12:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.5	1.0	2.5		01/23/15 12:52	79-34-5	
Tetrachloroethene	ND	ug/L	2.5	1.2	2.5		01/23/15 12:52	127-18-4	
Toluene	ND	ug/L	2.5	0.65	2.5		01/23/15 12:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.5	0.82	2.5		01/23/15 12:52	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-20-11315 **Lab ID: 92233742020** Collected: 01/13/15 15:00 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	2.5	0.88	2.5		01/23/15 12:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	2.5	1.2	2.5		01/23/15 12:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.5	0.72	2.5		01/23/15 12:52	79-00-5	
Trichloroethene	ND	ug/L	2.5	1.2	2.5		01/23/15 12:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.5	0.50	2.5		01/23/15 12:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	1.0	2.5		01/23/15 12:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.5	0.78	2.5		01/23/15 12:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.5	0.90	2.5		01/23/15 12:52	108-67-8	
Vinyl chloride	ND	ug/L	2.5	1.6	2.5		01/23/15 12:52	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1.6	2.5		01/23/15 12:52	179601-23-1	
o-Xylene	ND	ug/L	2.5	0.58	2.5		01/23/15 12:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		2.5		01/23/15 12:52	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		2.5		01/23/15 12:52	17060-07-0	
Toluene-d8 (S)	89	%	70-130		2.5		01/23/15 12:52	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/22/15 17:59	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	111	%	50-150		1		01/22/15 17:59	17060-07-0	
Toluene-d8 (S)	81	%	50-150		1		01/22/15 17:59	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-14-11415 **Lab ID: 92233742021** Collected: 01/14/15 13:55 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	20.0	5.0	20		01/23/15 13:09	71-43-2	
Bromobenzene	ND	ug/L	20.0	6.0	20		01/23/15 13:09	108-86-1	
Bromochloromethane	ND	ug/L	20.0	3.4	20		01/23/15 13:09	74-97-5	
Bromodichloromethane	ND	ug/L	20.0	3.6	20		01/23/15 13:09	75-27-4	
Bromoform	ND	ug/L	20.0	5.2	20		01/23/15 13:09	75-25-2	
Bromomethane	ND	ug/L	40.0	5.8	20		01/23/15 13:09	74-83-9	
n-Butylbenzene	ND	ug/L	20.0	8.2	20		01/23/15 13:09	104-51-8	
sec-Butylbenzene	ND	ug/L	20.0	7.6	20		01/23/15 13:09	135-98-8	
tert-Butylbenzene	ND	ug/L	20.0	8.0	20		01/23/15 13:09	98-06-6	
Carbon tetrachloride	ND	ug/L	20.0	5.0	20		01/23/15 13:09	56-23-5	
Chlorobenzene	ND	ug/L	20.0	4.6	20		01/23/15 13:09	108-90-7	
Chloroethane	ND	ug/L	20.0	10.8	20		01/23/15 13:09	75-00-3	
Chloroform	ND	ug/L	20.0	2.8	20		01/23/15 13:09	67-66-3	
Chloromethane	ND	ug/L	20.0	2.2	20		01/23/15 13:09	74-87-3	
2-Chlorotoluene	ND	ug/L	20.0	7.0	20		01/23/15 13:09	95-49-8	
4-Chlorotoluene	ND	ug/L	20.0	6.2	20		01/23/15 13:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	40.0	40.0	20		01/23/15 13:09	96-12-8	
Dibromochloromethane	ND	ug/L	20.0	4.2	20		01/23/15 13:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	20.0	5.4	20		01/23/15 13:09	106-93-4	
Dibromomethane	ND	ug/L	20.0	4.2	20		01/23/15 13:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	20.0	6.0	20		01/23/15 13:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	20.0	4.8	20		01/23/15 13:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	20.0	6.6	20		01/23/15 13:09	106-46-7	
Dichlorodifluoromethane	ND	ug/L	20.0	4.2	20		01/23/15 13:09	75-71-8	
1,1-Dichloroethane	ND	ug/L	20.0	6.4	20		01/23/15 13:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	20.0	2.4	20		01/23/15 13:09	107-06-2	
1,1-Dichloroethene	**46.8**	ug/L	20.0	11.2	20		01/23/15 13:09	75-35-4	
cis-1,2-Dichloroethene	**189**	ug/L	20.0	3.8	20		01/23/15 13:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	20.0	9.8	20		01/23/15 13:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	20.0	5.4	20		01/23/15 13:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	20.0	5.6	20		01/23/15 13:09	142-28-9	
2,2-Dichloropropane	ND	ug/L	20.0	2.6	20		01/23/15 13:09	594-20-7	
1,1-Dichloropropene	ND	ug/L	20.0	9.8	20		01/23/15 13:09	563-58-6	
Ethylbenzene	ND	ug/L	20.0	6.0	20		01/23/15 13:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	20.0	14.2	20		01/23/15 13:09	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	20.0	8.0	20		01/23/15 13:09	98-82-8	
p-Isopropyltoluene	ND	ug/L	20.0	6.2	20		01/23/15 13:09	99-87-6	
Methylene Chloride	ND	ug/L	40.0	19.4	20		01/23/15 13:09	75-09-2	
Naphthalene	ND	ug/L	20.0	4.8	20		01/23/15 13:09	91-20-3	
n-Propylbenzene	ND	ug/L	20.0	8.4	20		01/23/15 13:09	103-65-1	
Styrene	ND	ug/L	20.0	5.2	20		01/23/15 13:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	20.0	6.6	20		01/23/15 13:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	20.0	8.0	20		01/23/15 13:09	79-34-5	
Tetrachloroethene	ND	ug/L	20.0	9.2	20		01/23/15 13:09	127-18-4	
Toluene	ND	ug/L	20.0	5.2	20		01/23/15 13:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	20.0	6.6	20		01/23/15 13:09	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-14-11415 **Lab ID: 92233742021** Collected: 01/14/15 13:55 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	20.0	7.0	20		01/23/15 13:09	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	20.0	9.6	20		01/23/15 13:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	20.0	5.8	20		01/23/15 13:09	79-00-5	
Trichloroethene	**2060**	ug/L	20.0	9.4	20		01/23/15 13:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	20.0	4.0	20		01/23/15 13:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	20.0	8.2	20		01/23/15 13:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	20.0	6.2	20		01/23/15 13:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	20.0	7.2	20		01/23/15 13:09	108-67-8	
Vinyl chloride	ND	ug/L	20.0	12.4	20		01/23/15 13:09	75-01-4	
m&p-Xylene	ND	ug/L	40.0	13.2	20		01/23/15 13:09	179601-23-1	
o-Xylene	ND	ug/L	20.0	4.6	20		01/23/15 13:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		20		01/23/15 13:09	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		20		01/23/15 13:09	17060-07-0	
Toluene-d8 (S)	91	%	70-130		20		01/23/15 13:09	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/22/15 18:19	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	112	%	50-150		1		01/22/15 18:19	17060-07-0	
Toluene-d8 (S)	80	%	50-150		1		01/22/15 18:19	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-19-11415 **Lab ID: 92233742022** Collected: 01/14/15 15:55 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	40.0	10.0	40		01/23/15 13:25	71-43-2	
Bromobenzene	ND	ug/L	40.0	12.0	40		01/23/15 13:25	108-86-1	
Bromochloromethane	ND	ug/L	40.0	6.8	40		01/23/15 13:25	74-97-5	
Bromodichloromethane	ND	ug/L	40.0	7.2	40		01/23/15 13:25	75-27-4	
Bromoform	ND	ug/L	40.0	10.4	40		01/23/15 13:25	75-25-2	
Bromomethane	ND	ug/L	80.0	11.6	40		01/23/15 13:25	74-83-9	
n-Butylbenzene	ND	ug/L	40.0	16.4	40		01/23/15 13:25	104-51-8	
sec-Butylbenzene	ND	ug/L	40.0	15.2	40		01/23/15 13:25	135-98-8	
tert-Butylbenzene	ND	ug/L	40.0	16.0	40		01/23/15 13:25	98-06-6	
Carbon tetrachloride	ND	ug/L	40.0	10.0	40		01/23/15 13:25	56-23-5	
Chlorobenzene	ND	ug/L	40.0	9.2	40		01/23/15 13:25	108-90-7	
Chloroethane	ND	ug/L	40.0	21.6	40		01/23/15 13:25	75-00-3	
Chloroform	ND	ug/L	40.0	5.6	40		01/23/15 13:25	67-66-3	
Chloromethane	ND	ug/L	40.0	4.4	40		01/23/15 13:25	74-87-3	
2-Chlorotoluene	ND	ug/L	40.0	14.0	40		01/23/15 13:25	95-49-8	
4-Chlorotoluene	ND	ug/L	40.0	12.4	40		01/23/15 13:25	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	80.0	80.0	40		01/23/15 13:25	96-12-8	
Dibromochloromethane	ND	ug/L	40.0	8.4	40		01/23/15 13:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	40.0	10.8	40		01/23/15 13:25	106-93-4	
Dibromomethane	ND	ug/L	40.0	8.4	40		01/23/15 13:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	40.0	12.0	40		01/23/15 13:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	40.0	9.6	40		01/23/15 13:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	40.0	13.2	40		01/23/15 13:25	106-46-7	
Dichlorodifluoromethane	ND	ug/L	40.0	8.4	40		01/23/15 13:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	40.0	12.8	40		01/23/15 13:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	40.0	4.8	40		01/23/15 13:25	107-06-2	
1,1-Dichloroethene	**43.6**	ug/L	40.0	22.4	40		01/23/15 13:25	75-35-4	
cis-1,2-Dichloroethene	**30.2J**	ug/L	40.0	7.6	40		01/23/15 13:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	40.0	19.6	40		01/23/15 13:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	40.0	10.8	40		01/23/15 13:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	40.0	11.2	40		01/23/15 13:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	40.0	5.2	40		01/23/15 13:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	40.0	19.6	40		01/23/15 13:25	563-58-6	
Ethylbenzene	ND	ug/L	40.0	12.0	40		01/23/15 13:25	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	40.0	28.4	40		01/23/15 13:25	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	40.0	16.0	40		01/23/15 13:25	98-82-8	
p-Isopropyltoluene	ND	ug/L	40.0	12.4	40		01/23/15 13:25	99-87-6	
Methylene Chloride	ND	ug/L	80.0	38.8	40		01/23/15 13:25	75-09-2	
Naphthalene	ND	ug/L	40.0	9.6	40		01/23/15 13:25	91-20-3	
n-Propylbenzene	ND	ug/L	40.0	16.8	40		01/23/15 13:25	103-65-1	
Styrene	ND	ug/L	40.0	10.4	40		01/23/15 13:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	40.0	13.2	40		01/23/15 13:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	40.0	16.0	40		01/23/15 13:25	79-34-5	
Tetrachloroethene	ND	ug/L	40.0	18.4	40		01/23/15 13:25	127-18-4	
Toluene	ND	ug/L	40.0	10.4	40		01/23/15 13:25	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	40.0	13.2	40		01/23/15 13:25	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Sample: MW-19-11415 **Lab ID: 92233742022** Collected: 01/14/15 15:55 Received: 01/16/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	40.0	14.0	40		01/23/15 13:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	40.0	19.2	40		01/23/15 13:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	40.0	11.6	40		01/23/15 13:25	79-00-5	
Trichloroethene	**3280**	ug/L	40.0	18.8	40		01/23/15 13:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	40.0	8.0	40		01/23/15 13:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	40.0	16.4	40		01/23/15 13:25	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	40.0	12.4	40		01/23/15 13:25	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	40.0	14.4	40		01/23/15 13:25	108-67-8	
Vinyl chloride	ND	ug/L	40.0	24.8	40		01/23/15 13:25	75-01-4	
m&p-Xylene	ND	ug/L	80.0	26.4	40		01/23/15 13:25	179601-23-1	
o-Xylene	ND	ug/L	40.0	9.2	40		01/23/15 13:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		40		01/23/15 13:25	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		40		01/23/15 13:25	17060-07-0	
Toluene-d8 (S)	90	%	70-130		40		01/23/15 13:25	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		01/22/15 18:39	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	114	%	50-150		1		01/22/15 18:39	17060-07-0	
Toluene-d8 (S)	80	%	50-150		1		01/22/15 18:39	2037-26-5	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

QC Batch: MSV/30078 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92233742001, 92233742002, 92233742004, 92233742005, 92233742006, 92233742007, 92233742008, 92233742009, 92233742010, 92233742011, 92233742012, 92233742013, 92233742015

METHOD BLANK: 1375962 Matrix: Water
Associated Lab Samples: 92233742001, 92233742002, 92233742004, 92233742005, 92233742006, 92233742007, 92233742008, 92233742009, 92233742010, 92233742011, 92233742012, 92233742013, 92233742015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	01/22/15 22:53	
1,1,1-Trichloroethane	ug/L	ND	1.0	01/22/15 22:53	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	01/22/15 22:53	
1,1,2-Trichloroethane	ug/L	ND	1.0	01/22/15 22:53	
1,1-Dichloroethane	ug/L	ND	1.0	01/22/15 22:53	
1,1-Dichloroethene	ug/L	ND	1.0	01/22/15 22:53	
1,1-Dichloropropene	ug/L	ND	1.0	01/22/15 22:53	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	01/22/15 22:53	
1,2,3-Trichloropropane	ug/L	ND	1.0	01/22/15 22:53	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	01/22/15 22:53	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	01/22/15 22:53	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	01/22/15 22:53	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	01/22/15 22:53	
1,2-Dichlorobenzene	ug/L	ND	1.0	01/22/15 22:53	
1,2-Dichloroethane	ug/L	ND	1.0	01/22/15 22:53	
1,2-Dichloropropane	ug/L	ND	1.0	01/22/15 22:53	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	01/22/15 22:53	
1,3-Dichlorobenzene	ug/L	ND	1.0	01/22/15 22:53	
1,3-Dichloropropane	ug/L	ND	1.0	01/22/15 22:53	
1,4-Dichlorobenzene	ug/L	ND	1.0	01/22/15 22:53	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	01/22/15 22:53	
2,2-Dichloropropane	ug/L	ND	1.0	01/22/15 22:53	
2-Chlorotoluene	ug/L	ND	1.0	01/22/15 22:53	
4-Chlorotoluene	ug/L	ND	1.0	01/22/15 22:53	
Benzene	ug/L	ND	1.0	01/22/15 22:53	
Bromobenzene	ug/L	ND	1.0	01/22/15 22:53	
Bromochloromethane	ug/L	ND	1.0	01/22/15 22:53	
Bromodichloromethane	ug/L	ND	1.0	01/22/15 22:53	
Bromoform	ug/L	ND	1.0	01/22/15 22:53	
Bromomethane	ug/L	ND	2.0	01/22/15 22:53	
Carbon tetrachloride	ug/L	ND	1.0	01/22/15 22:53	
Chlorobenzene	ug/L	ND	1.0	01/22/15 22:53	
Chloroethane	ug/L	ND	1.0	01/22/15 22:53	
Chloroform	ug/L	ND	1.0	01/22/15 22:53	
Chloromethane	ug/L	ND	1.0	01/22/15 22:53	
cis-1,2-Dichloroethene	ug/L	ND	1.0	01/22/15 22:53	
Dibromochloromethane	ug/L	ND	1.0	01/22/15 22:53	
Dibromomethane	ug/L	ND	1.0	01/22/15 22:53	
Dichlorodifluoromethane	ug/L	ND	1.0	01/22/15 22:53	
Ethylbenzene	ug/L	ND	1.0	01/22/15 22:53	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

METHOD BLANK: 1375962 Matrix: Water

Associated Lab Samples: 92233742001, 92233742002, 92233742004, 92233742005, 92233742006, 92233742007, 92233742008, 92233742009, 92233742010, 92233742011, 92233742012, 92233742013, 92233742015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	ND	1.0	01/22/15 22:53	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	01/22/15 22:53	
m&p-Xylene	ug/L	ND	2.0	01/22/15 22:53	
Methylene Chloride	ug/L	ND	2.0	01/22/15 22:53	
n-Butylbenzene	ug/L	ND	1.0	01/22/15 22:53	
n-Propylbenzene	ug/L	ND	1.0	01/22/15 22:53	
Naphthalene	ug/L	ND	1.0	01/22/15 22:53	
o-Xylene	ug/L	ND	1.0	01/22/15 22:53	
p-Isopropyltoluene	ug/L	ND	1.0	01/22/15 22:53	
sec-Butylbenzene	ug/L	ND	1.0	01/22/15 22:53	
Styrene	ug/L	ND	1.0	01/22/15 22:53	
tert-Butylbenzene	ug/L	ND	1.0	01/22/15 22:53	
Tetrachloroethene	ug/L	ND	1.0	01/22/15 22:53	
Toluene	ug/L	ND	1.0	01/22/15 22:53	
trans-1,2-Dichloroethene	ug/L	ND	1.0	01/22/15 22:53	
Trichloroethene	ug/L	ND	1.0	01/22/15 22:53	
Trichlorofluoromethane	ug/L	ND	1.0	01/22/15 22:53	
Vinyl chloride	ug/L	ND	1.0	01/22/15 22:53	
1,2-Dichloroethane-d4 (S)	%	92	70-130	01/22/15 22:53	
4-Bromofluorobenzene (S)	%	106	70-130	01/22/15 22:53	
Toluene-d8 (S)	%	91	70-130	01/22/15 22:53	

LABORATORY CONTROL SAMPLE: 1375963

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.6	109	70-130	
1,1,1-Trichloroethane	ug/L	50	49.5	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	44.4	89	70-130	
1,1,2-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1-Dichloroethane	ug/L	50	44.7	89	70-130	
1,1-Dichloroethene	ug/L	50	43.0	86	70-132	
1,1-Dichloropropene	ug/L	50	45.7	91	70-130	
1,2,3-Trichlorobenzene	ug/L	50	43.3	87	70-135	
1,2,3-Trichloropropane	ug/L	50	48.3	97	70-130	
1,2,4-Trichlorobenzene	ug/L	50	48.2	96	70-134	
1,2,4-Trimethylbenzene	ug/L	50	49.5	99	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.4	95	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	53.7	107	70-130	
1,2-Dichlorobenzene	ug/L	50	52.1	104	70-130	
1,2-Dichloroethane	ug/L	50	46.0	92	70-130	
1,2-Dichloropropane	ug/L	50	46.0	92	70-130	
1,3,5-Trimethylbenzene	ug/L	50	48.9	98	70-130	
1,3-Dichlorobenzene	ug/L	50	51.4	103	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

LABORATORY CONTROL SAMPLE: 1375963

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichloropropane	ug/L	50	46.2	92	70-130	
1,4-Dichlorobenzene	ug/L	50	50.3	101	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1110	111	71-125	
2,2-Dichloropropane	ug/L	50	45.3	91	58-145	
2-Chlorotoluene	ug/L	50	44.0	88	70-130	
4-Chlorotoluene	ug/L	50	47.7	95	70-130	
Benzene	ug/L	50	47.7	95	70-130	
Bromobenzene	ug/L	50	45.9	92	70-130	
Bromochloromethane	ug/L	50	49.9	100	70-130	
Bromodichloromethane	ug/L	50	48.4	97	70-130	
Bromoform	ug/L	50	47.1	94	70-130	
Bromomethane	ug/L	50	35.5	71	54-130	
Carbon tetrachloride	ug/L	50	56.5	113	70-132	
Chlorobenzene	ug/L	50	47.6	95	70-130	
Chloroethane	ug/L	50	34.0	68	64-134	
Chloroform	ug/L	50	41.8	84	70-130	
Chloromethane	ug/L	50	38.7	77	64-130	
cis-1,2-Dichloroethene	ug/L	50	46.5	93	70-131	
Dibromochloromethane	ug/L	50	47.7	95	70-130	
Dibromomethane	ug/L	50	57.2	114	70-131	
Dichlorodifluoromethane	ug/L	50	45.0	90	56-130	
Ethylbenzene	ug/L	50	47.3	95	70-130	
Hexachloro-1,3-butadiene	ug/L	50	51.1	102	70-130	
Isopropylbenzene (Cumene)	ug/L	50	48.3	97	70-130	
m&p-Xylene	ug/L	100	94.1	94	70-130	
Methylene Chloride	ug/L	50	51.2	102	63-130	
n-Butylbenzene	ug/L	50	44.5	89	70-130	
n-Propylbenzene	ug/L	50	44.3	89	70-130	
Naphthalene	ug/L	50	45.4	91	70-138	
o-Xylene	ug/L	50	46.9	94	70-130	
p-Isopropyltoluene	ug/L	50	48.0	96	70-130	
sec-Butylbenzene	ug/L	50	45.9	92	70-130	
Styrene	ug/L	50	51.5	103	70-130	
tert-Butylbenzene	ug/L	50	41.3	83	70-130	
Tetrachloroethene	ug/L	50	52.0	104	70-130	
Toluene	ug/L	50	47.5	95	70-130	
trans-1,2-Dichloroethene	ug/L	50	45.3	91	70-130	
Trichloroethene	ug/L	50	53.8	108	70-130	
Trichlorofluoromethane	ug/L	50	50.6	101	62-133	
Vinyl chloride	ug/L	50	39.2	78	50-150	
1,2-Dichloroethane-d4 (S)	%			88	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			96	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

MATRIX SPIKE SAMPLE: 1375965

Parameter	Units	92233742013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	25.0	125	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	24.4	122	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	18.3	91	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	21.5	107	70-130	
1,1-Dichloroethane	ug/L	ND	20	20.3	102	70-130	
1,1-Dichloroethene	ug/L	ND	20	21.8	109	70-166	
1,1-Dichloropropene	ug/L	ND	20	21.4	107	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	17.7	89	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	22.4	112	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.7	93	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	21.1	106	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	17.7	89	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.1	110	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	21.9	109	70-130	
1,2-Dichloroethane	ug/L	ND	20	21.4	107	70-130	
1,2-Dichloropropane	ug/L	ND	20	19.5	97	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	20.9	105	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	21.8	109	70-130	
1,3-Dichloropropane	ug/L	ND	20	19.5	97	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	22.1	111	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	332	83	70-130	
2,2-Dichloropropane	ug/L	ND	20	17.7	89	70-130	
2-Chlorotoluene	ug/L	ND	20	19.4	97	70-130	
4-Chlorotoluene	ug/L	ND	20	21.3	107	70-130	
Benzene	ug/L	ND	20	21.3	106	70-148	
Bromobenzene	ug/L	ND	20	19.3	96	70-130	
Bromochloromethane	ug/L	ND	20	23.1	115	70-130	
Bromodichloromethane	ug/L	ND	20	21.5	107	70-130	
Bromoform	ug/L	ND	20	20.4	102	70-130	
Bromomethane	ug/L	ND	20	12.4	62	70-130	M0
Carbon tetrachloride	ug/L	ND	20	29.1	145	70-130	M0
Chlorobenzene	ug/L	ND	20	22.1	111	70-146	
Chloroethane	ug/L	ND	20	18.5	92	70-130	
Chloroform	ug/L	ND	20	19.4	97	70-130	
Chloromethane	ug/L	ND	20	19.0	95	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	20.7	104	70-130	
Dibromochloromethane	ug/L	ND	20	20.3	101	70-130	
Dibromomethane	ug/L	ND	20	23.8	119	70-130	
Dichlorodifluoromethane	ug/L	ND	20	24.5	123	70-130	
Ethylbenzene	ug/L	ND	20	21.8	109	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	26.4	132	70-130	M0
Isopropylbenzene (Cumene)	ug/L	ND	20	21.4	107	70-130	
m&p-Xylene	ug/L	ND	40	43.7	109	70-130	
Methylene Chloride	ug/L	ND	20	23.3	116	70-130	
n-Butylbenzene	ug/L	ND	20	18.5	93	70-130	
n-Propylbenzene	ug/L	ND	20	18.8	94	70-130	
Naphthalene	ug/L	ND	20	17.2	86	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

MATRIX SPIKE SAMPLE: 1375965

Parameter	Units	92233742013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	20.3	102	70-130	
p-Isopropyltoluene	ug/L	ND	20	20.0	100	70-130	
sec-Butylbenzene	ug/L	ND	20	20.0	100	70-130	
Styrene	ug/L	ND	20	21.6	108	70-130	
tert-Butylbenzene	ug/L	ND	20	17.4	87	70-130	
Tetrachloroethene	ug/L	ND	20	22.6	113	70-130	
Toluene	ug/L	ND	20	21.9	110	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	21.2	106	70-130	
Trichloroethene	ug/L	ND	20	24.1	120	69-151	
Trichlorofluoromethane	ug/L	ND	20	28.4	142	70-130	M0
Vinyl chloride	ug/L	ND	20	18.0	90	70-130	
1,2-Dichloroethane-d4 (S)	%				88	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				93	70-130	

SAMPLE DUPLICATE: 1375964

Parameter	Units	92233742012 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

SAMPLE DUPLICATE: 1375964

Parameter	Units	92233742012 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	93	96	3		
4-Bromofluorobenzene (S)	%	100	100	0		
Toluene-d8 (S)	%	93	90	3		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

QC Batch: MSV/30082 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92233742003, 92233742014, 92233742016, 92233742017, 92233742018, 92233742019, 92233742020, 92233742021, 92233742022

METHOD BLANK: 1376044 Matrix: Water
Associated Lab Samples: 92233742003, 92233742014, 92233742016, 92233742017, 92233742018, 92233742019, 92233742020, 92233742021, 92233742022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	01/23/15 11:11	
1,1,1-Trichloroethane	ug/L	ND	1.0	01/23/15 11:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	01/23/15 11:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	01/23/15 11:11	
1,1-Dichloroethane	ug/L	ND	1.0	01/23/15 11:11	
1,1-Dichloroethene	ug/L	ND	1.0	01/23/15 11:11	
1,1-Dichloropropene	ug/L	ND	1.0	01/23/15 11:11	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	01/23/15 11:11	
1,2,3-Trichloropropane	ug/L	ND	1.0	01/23/15 11:11	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	01/23/15 11:11	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	01/23/15 11:11	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	01/23/15 11:11	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	01/23/15 11:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	01/23/15 11:11	
1,2-Dichloroethane	ug/L	ND	1.0	01/23/15 11:11	
1,2-Dichloropropane	ug/L	ND	1.0	01/23/15 11:11	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	01/23/15 11:11	
1,3-Dichlorobenzene	ug/L	ND	1.0	01/23/15 11:11	
1,3-Dichloropropane	ug/L	ND	1.0	01/23/15 11:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	01/23/15 11:11	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	01/23/15 11:11	
2,2-Dichloropropane	ug/L	ND	1.0	01/23/15 11:11	
2-Chlorotoluene	ug/L	ND	1.0	01/23/15 11:11	
4-Chlorotoluene	ug/L	ND	1.0	01/23/15 11:11	
Benzene	ug/L	ND	1.0	01/23/15 11:11	
Bromobenzene	ug/L	ND	1.0	01/23/15 11:11	
Bromochloromethane	ug/L	ND	1.0	01/23/15 11:11	
Bromodichloromethane	ug/L	ND	1.0	01/23/15 11:11	
Bromoform	ug/L	ND	1.0	01/23/15 11:11	
Bromomethane	ug/L	ND	2.0	01/23/15 11:11	
Carbon tetrachloride	ug/L	ND	1.0	01/23/15 11:11	
Chlorobenzene	ug/L	ND	1.0	01/23/15 11:11	
Chloroethane	ug/L	ND	1.0	01/23/15 11:11	
Chloroform	ug/L	ND	1.0	01/23/15 11:11	
Chloromethane	ug/L	ND	1.0	01/23/15 11:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	01/23/15 11:11	
Dibromochloromethane	ug/L	ND	1.0	01/23/15 11:11	
Dibromomethane	ug/L	ND	1.0	01/23/15 11:11	
Dichlorodifluoromethane	ug/L	ND	1.0	01/23/15 11:11	
Ethylbenzene	ug/L	ND	1.0	01/23/15 11:11	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

METHOD BLANK: 1376044 Matrix: Water
Associated Lab Samples: 92233742003, 92233742014, 92233742016, 92233742017, 92233742018, 92233742019, 92233742020, 92233742021, 92233742022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	ND	1.0	01/23/15 11:11	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	01/23/15 11:11	
m&p-Xylene	ug/L	ND	2.0	01/23/15 11:11	
Methylene Chloride	ug/L	ND	2.0	01/23/15 11:11	
n-Butylbenzene	ug/L	ND	1.0	01/23/15 11:11	
n-Propylbenzene	ug/L	ND	1.0	01/23/15 11:11	
Naphthalene	ug/L	ND	1.0	01/23/15 11:11	
o-Xylene	ug/L	ND	1.0	01/23/15 11:11	
p-Isopropyltoluene	ug/L	ND	1.0	01/23/15 11:11	
sec-Butylbenzene	ug/L	ND	1.0	01/23/15 11:11	
Styrene	ug/L	ND	1.0	01/23/15 11:11	
tert-Butylbenzene	ug/L	ND	1.0	01/23/15 11:11	
Tetrachloroethene	ug/L	ND	1.0	01/23/15 11:11	
Toluene	ug/L	ND	1.0	01/23/15 11:11	
trans-1,2-Dichloroethene	ug/L	ND	1.0	01/23/15 11:11	
Trichloroethene	ug/L	ND	1.0	01/23/15 11:11	
Trichlorofluoromethane	ug/L	ND	1.0	01/23/15 11:11	
Vinyl chloride	ug/L	ND	1.0	01/23/15 11:11	
1,2-Dichloroethane-d4 (S)	%	94	70-130	01/23/15 11:11	
4-Bromofluorobenzene (S)	%	106	70-130	01/23/15 11:11	
Toluene-d8 (S)	%	91	70-130	01/23/15 11:11	

LABORATORY CONTROL SAMPLE: 1376045

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	57.9	116	70-130	
1,1,1-Trichloroethane	ug/L	50	54.8	110	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.5	95	70-130	
1,1,2-Trichloroethane	ug/L	50	51.6	103	70-130	
1,1-Dichloroethane	ug/L	50	46.7	93	70-130	
1,1-Dichloroethene	ug/L	50	47.1	94	70-132	
1,1-Dichloropropene	ug/L	50	48.1	96	70-130	
1,2,3-Trichlorobenzene	ug/L	50	44.2	88	70-135	
1,2,3-Trichloropropane	ug/L	50	53.3	107	70-130	
1,2,4-Trichlorobenzene	ug/L	50	48.3	97	70-134	
1,2,4-Trimethylbenzene	ug/L	50	49.3	99	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	50.5	101	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	56.2	112	70-130	
1,2-Dichlorobenzene	ug/L	50	51.7	103	70-130	
1,2-Dichloroethane	ug/L	50	50.4	101	70-130	
1,2-Dichloropropane	ug/L	50	45.1	90	70-130	
1,3,5-Trimethylbenzene	ug/L	50	48.3	97	70-130	
1,3-Dichlorobenzene	ug/L	50	50.7	101	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

LABORATORY CONTROL SAMPLE: 1376045

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichloropropane	ug/L	50	47.9	96	70-130	
1,4-Dichlorobenzene	ug/L	50	50.6	101	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1150	115	71-125	
2,2-Dichloropropane	ug/L	50	41.4	83	58-145	
2-Chlorotoluene	ug/L	50	42.8	86	70-130	
4-Chlorotoluene	ug/L	50	47.7	95	70-130	
Benzene	ug/L	50	48.0	96	70-130	
Bromobenzene	ug/L	50	46.3	93	70-130	
Bromochloromethane	ug/L	50	52.4	105	70-130	
Bromodichloromethane	ug/L	50	51.5	103	70-130	
Bromoform	ug/L	50	52.1	104	70-130	
Bromomethane	ug/L	50	36.4	73	54-130	
Carbon tetrachloride	ug/L	50	62.6	125	70-132	
Chlorobenzene	ug/L	50	49.5	99	70-130	
Chloroethane	ug/L	50	36.4	73	64-134	
Chloroform	ug/L	50	44.9	90	70-130	
Chloromethane	ug/L	50	43.1	86	64-130	
cis-1,2-Dichloroethene	ug/L	50	48.5	97	70-131	
Dibromochloromethane	ug/L	50	50.8	102	70-130	
Dibromomethane	ug/L	50	59.8	120	70-131	
Dichlorodifluoromethane	ug/L	50	50.9	102	56-130	
Ethylbenzene	ug/L	50	48.4	97	70-130	
Hexachloro-1,3-butadiene	ug/L	50	49.3	99	70-130	
Isopropylbenzene (Cumene)	ug/L	50	50.6	101	70-130	
m&p-Xylene	ug/L	100	98.1	98	70-130	
Methylene Chloride	ug/L	50	53.5	107	63-130	
n-Butylbenzene	ug/L	50	42.2	84	70-130	
n-Propylbenzene	ug/L	50	43.2	86	70-130	
Naphthalene	ug/L	50	47.1	94	70-138	
o-Xylene	ug/L	50	49.1	98	70-130	
p-Isopropyltoluene	ug/L	50	47.1	94	70-130	
sec-Butylbenzene	ug/L	50	45.5	91	70-130	
Styrene	ug/L	50	52.9	106	70-130	
tert-Butylbenzene	ug/L	50	40.4	81	70-130	
Tetrachloroethene	ug/L	50	54.4	109	70-130	
Toluene	ug/L	50	48.5	97	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.0	94	70-130	
Trichloroethene	ug/L	50	54.1	108	70-130	
Trichlorofluoromethane	ug/L	50	59.6	119	62-133	
Vinyl chloride	ug/L	50	40.7	81	50-150	
1,2-Dichloroethane-d4 (S)	%			89	70-130	
4-Bromofluorobenzene (S)	%			108	70-130	
Toluene-d8 (S)	%			97	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1376046 1376047

Parameter	Units	92233742014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	26.8	28.0	134	140	70-130	5	30	M0
1,1,1-Trichloroethane	ug/L	ND	20	20	26.9	27.8	135	139	70-130	3	30	M0
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	20.4	97	102	70-130	5	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	22.3	23.2	112	116	70-130	4	30	
1,1-Dichloroethane	ug/L	ND	20	20	21.3	22.2	106	111	70-130	4	30	
1,1-Dichloroethene	ug/L	ND	20	20	23.0	24.2	114	120	70-166	5	30	
1,1-Dichloropropene	ug/L	ND	20	20	21.9	22.0	110	110	70-130	0	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	18.5	21.2	92	106	70-130	14	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	24.6	25.3	123	126	70-130	3	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	20.6	22.2	103	111	70-130	7	30	
1,2,4-Trimethylbenzene	ug/L	ND	20	20	21.7	23.3	109	117	70-130	7	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	18.6	22.2	93	111	70-130	18	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	23.3	25.0	117	125	70-130	7	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	22.5	24.3	113	121	70-130	8	30	
1,2-Dichloroethane	ug/L	ND	20	20	23.6	24.3	118	122	70-130	3	30	
1,2-Dichloropropane	ug/L	ND	20	20	19.3	20.0	96	100	70-130	4	30	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	21.7	23.6	109	118	70-130	8	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	23.0	24.7	115	124	70-130	7	30	
1,3-Dichloropropane	ug/L	ND	20	20	20.1	21.3	101	106	70-130	6	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	22.9	24.4	115	122	70-130	6	30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	400	289	405	72	101	70-130	33	30	R1
2,2-Dichloropropane	ug/L	ND	20	20	19.0	19.7	95	99	70-130	4	30	
2-Chlorotoluene	ug/L	ND	20	20	19.4	20.9	97	105	70-130	7	30	
4-Chlorotoluene	ug/L	ND	20	20	21.6	23.4	108	117	70-130	8	30	
Benzene	ug/L	ND	20	20	21.5	22.7	107	113	70-148	5	30	
Bromobenzene	ug/L	ND	20	20	20.7	22.0	104	110	70-130	6	30	
Bromochloromethane	ug/L	ND	20	20	24.7	25.2	123	126	70-130	2	30	
Bromodichloromethane	ug/L	ND	20	20	22.4	23.7	112	119	70-130	6	30	
Bromoform	ug/L	ND	20	20	22.3	23.9	111	119	70-130	7	30	
Bromomethane	ug/L	ND	20	20	13.7	17.3	69	87	70-130	23	30	M0
Carbon tetrachloride	ug/L	ND	20	20	31.3	32.3	156	162	70-130	3	30	M0
Chlorobenzene	ug/L	ND	20	20	22.6	24.6	113	123	70-146	8	30	
Chloroethane	ug/L	ND	20	20	16.4	19.5	82	97	70-130	17	30	
Chloroform	ug/L	3.7	20	20	23.9	24.6	101	105	70-130	3	30	
Chloromethane	ug/L	ND	20	20	18.7	19.3	94	96	70-130	3	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.8	22.4	109	112	70-130	3	30	
Dibromochloromethane	ug/L	ND	20	20	22.1	23.5	111	117	70-130	6	30	
Dibromomethane	ug/L	ND	20	20	26.0	27.1	130	136	70-130	4	30	M0
Dichlorodifluoromethane	ug/L	ND	20	20	22.8	22.6	114	113	70-130	1	30	
Ethylbenzene	ug/L	ND	20	20	22.9	23.8	114	119	70-130	4	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	21.3	23.5	106	118	70-130	10	30	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	22.4	24.1	112	121	70-130	8	30	
m&p-Xylene	ug/L	ND	40	40	46.2	49.1	115	123	70-130	6	30	
Methylene Chloride	ug/L	ND	20	20	24.2	24.7	121	123	70-130	2	30	
n-Butylbenzene	ug/L	ND	20	20	18.3	19.5	91	97	70-130	6	30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1376046 1376047

Parameter	Units	92233742014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
n-Propylbenzene	ug/L	ND	20	20	20.0	21.5	100	108	70-130	7	30	
Naphthalene	ug/L	ND	20	20	17.2	20.0	86	100	70-130	15	30	
o-Xylene	ug/L	ND	20	20	21.6	23.3	108	116	70-130	8	30	
p-Isopropyltoluene	ug/L	ND	20	20	20.7	22.7	104	113	70-130	9	30	
sec-Butylbenzene	ug/L	ND	20	20	20.2	22.2	101	111	70-130	9	30	
Styrene	ug/L	ND	20	20	22.5	24.1	113	120	70-130	7	30	
tert-Butylbenzene	ug/L	ND	20	20	17.8	19.7	89	98	70-130	10	30	
Tetrachloroethene	ug/L	ND	20	20	24.6	26.3	123	131	70-130	7	30	M0
Toluene	ug/L	ND	20	20	21.7	22.5	109	113	70-155	4	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	22.4	22.7	112	113	70-130	1	30	
Trichloroethene	ug/L	ND	20	20	26.2	26.9	129	133	69-151	3	30	
Trichlorofluoromethane	ug/L	ND	20	20	31.0	32.0	155	160	70-130	3	30	M0
Vinyl chloride	ug/L	ND	20	20	17.2	17.9	86	89	70-130	4	30	
1,2-Dichloroethane-d4 (S)	%						85	86	70-130			
4-Bromofluorobenzene (S)	%						109	110	70-130			
Toluene-d8 (S)	%						92	92	70-130			

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

QC Batch: MSV/30068 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92233742016, 92233742017, 92233742018, 92233742019, 92233742020, 92233742021, 92233742022

METHOD BLANK: 1375581 Matrix: Water
Associated Lab Samples: 92233742016, 92233742017, 92233742018, 92233742019, 92233742020, 92233742021, 92233742022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	01/22/15 13:36	
1,2-Dichloroethane-d4 (S)	%	107	50-150	01/22/15 13:36	
Toluene-d8 (S)	%	95	50-150	01/22/15 13:36	

LABORATORY CONTROL SAMPLE: 1375582

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	19.6	98	71-125	
1,2-Dichloroethane-d4 (S)	%			110	50-150	
Toluene-d8 (S)	%			96	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1375583 1375584

Parameter	Units	92233690005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	17.0	17.6	85	88	50-150	4	30	
1,2-Dichloroethane-d4 (S)	%						112	110	50-150		150	
Toluene-d8 (S)	%						88	87	50-150		150	

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QUALIFIERS

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

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TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TK LOUISVILLE, GA 6122-09-0322
Pace Project No.: 92233742

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92233742001	**MW-22-11315**	EPA 8260	MSV/30078		
92233742002	**MW-10-11315**	EPA 8260	MSV/30078		
92233742003	**SEEPH-11415**	EPA 8260	MSV/30082		
92233742004	**SEEPMASON BRANCH #2-11415**	EPA 8260	MSV/30078		
92233742005	**SEEPG-11415**	EPA 8260	MSV/30078		
92233742006	**SEEP#2-11415**	EPA 8260	MSV/30078		
92233742007	**SEEPI-11415**	EPA 8260	MSV/30078		
92233742008	**SEEPB-11415**	EPA 8260	MSV/30078		
92233742009	**SEEPL-11415**	EPA 8260	MSV/30078		
92233742010	**MB#5-11415**	EPA 8260	MSV/30078		
92233742011	**MB#16-11415**	EPA 8260	MSV/30078		
92233742012	**MB#3-11415**	EPA 8260	MSV/30078		
92233742013	**MB#15-11415**	EPA 8260	MSV/30078		
92233742014	**MW-3-11315**	EPA 8260	MSV/30082		
92233742015	**TRIP**	EPA 8260	MSV/30078		
92233742016	**MW-27-11315**	EPA 8260	MSV/30082		
92233742017	**MW-28-11315**	EPA 8260	MSV/30082		
92233742018	**MW-25-11315**	EPA 8260	MSV/30082		
92233742019	**MW-5-11315**	EPA 8260	MSV/30082		
92233742020	**MW-20-11315**	EPA 8260	MSV/30082		
92233742021	**MW-14-11415**	EPA 8260	MSV/30082		
92233742022	**MW-19-11415**	EPA 8260	MSV/30082		
92233742016	**MW-27-11315**	EPA 8260B Mod.	MSV/30068		
92233742017	**MW-28-11315**	EPA 8260B Mod.	MSV/30068		
92233742018	**MW-25-11315**	EPA 8260B Mod.	MSV/30068		
92233742019	**MW-5-11315**	EPA 8260B Mod.	MSV/30068		
92233742020	**MW-20-11315**	EPA 8260B Mod.	MSV/30068		
92233742021	**MW-14-11415**	EPA 8260B Mod.	MSV/30068		
92233742022	**MW-19-11415**	EPA 8260B Mod.	MSV/30068		

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Client Name: AMEC

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1401 Type of Ice: Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor T1401 No Correction

Corrected Cooler Temp.: 3.5 °C Biological Tissue is Frozen: Yes No N/A

Temp should be above freezing to 6°C

Optional
Proj. Due Date:
Proj. Name:

Date and Initials of person examining contents: AP 1-16-15

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☐No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:_____		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: JG Date: 1/16/15

SRF Review: JG Date: 1/16/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO# : 92233742

92233742

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

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Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AMEC	Report To: Rhonda Quinn	Attention:
Address: 1075 Big Shanty Rd. Ste100 Kennesaw, GA 30144	Copy To: Michelle Barker	Company Name:
		Address:
Email To: Rhonda Quinn	Purchase Order No.:	Pace Quote Reference:
Phone: 770-421-3400 Fax: 770-421-3486	Project Name: TK Louisville, GA	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 6122-09-0322	Pace Profile #: 6445-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION °C	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: 8260 1,4 Dioxane	Sim 1-4 Dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92233742
1	MW-22-11315	WT	G			1-13-15	12:37	18	3				✓						✓			001
2	MW-10-11315	WT	G			1-13-15	1:52		3				✓						✓			002
3	MW-27-11315	WT	G			1-13-15	3:02		6				✓						✓	✓		016
4	MW-28-11315	WT	G			1-13-15	3:37		6				✓						✓	✓		017
5	MW-25-11415	WT	G			1-14-15	12:12		6				✓						✓	✓		018
6	SeepH-11415	WT	G				1:10		3				✓						✓			003
7	SeepMasonBranch#2-11415	WT	G				12:55		3				✓						✓			004 003
8	SeepG-11415	WT	G				1:25		3				✓						✓			005 004
9	Seep#2-11415	WT	G				1:45		3				✓						✓			006 005 / 11/6 mm
10	SeepI-11415	WT	G				2:00		3				✓						✓			007 006
11	SeepB-11415	WT	G				2:20		3				✓						✓			008 007
12	SeepL-11415	WT	G				2:45		3				✓						✓			009 008

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
VOCs are Site Specific	/AMEC	1-15-15	1900	Alex Payne/Pace	1-16-15	9:45	3.9	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jeff Moore/Ever Guillen

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 1/15/15

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

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Section A Required Client Information:

Company:	AMEC
Address:	1075 Big Shanty Rd. Ste 100 Kennesaw, GA 30144
Email To:	Rhonda Quinn
Phone:	770-421-3400
Fax:	770-421-3486
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	Rhonda Quinn
Copy To:	Michelle Barker
Purchase Order No.:	
Project Name:	TK Louisville, GA
Project Number:	6122-09-0322

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260+1,4 Dioxane	SIM 1,4 Dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MB#5-11415	WT	G			1-14-15	3:10		3				✓						✓			010
2	MB#16-11415	WT	G			1-14-15	3:25		3				✓						✓			011
3	MB#3-11415	WT	G			1-14-15	3:50		3				✓						✓			012
4	MB#15-11415	WT	G			1-14-15	4:05		3				✓						✓			013
5	MW-5-11315	WT	G			1-13-15	1050		6				✓						✓	✓		019
6	MW-20-11315	WT	G			1-13-15	1500		6				✓						✓	✓		020
7	MW-3-11315	WT	G			1-13-15	1800		3				✓						✓			014
8	MW-14-11415	WT	G			1-14-15	1355		6				✓						✓	✓		021
9	MW-19-11415	WT	G			1-14-15	1555		6				✓						✓	✓		022
10	TRIP	WT	G						2				✓						✓			015
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
VOCs are Site Specific	[signature] / AMEC	1-15-15	1900	[signature]	1-16-15	9:45	3.5	✓	✓	✓

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jeff Moore / Ever Guillen

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

July 24, 2015

Rhonda Quinn
Amec Foster Wheeler
1075 Big Shanty Rd
Suite 100
Kennesaw, GA 30144

RE: Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Dear Rhonda Quinn:
Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Greg Wrenn, Amec Foster Wheeler

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CERTIFICATIONS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92258453001	**MW-3**	Water	07/08/15 14:58	07/14/15 10:20
92258453002	**MW-10**	Water	07/09/15 12:48	07/14/15 10:20
92258453003	**MW-22**	Water	07/09/15 15:00	07/14/15 10:20
92258453004	**MW-5**	Water	07/08/15 16:10	07/14/15 10:20
92258453005	**MW-14**	Water	07/08/15 11:10	07/14/15 10:20
92258453006	**MW-19**	Water	07/08/15 13:35	07/14/15 10:20
92258453007	**MW-20**	Water	07/08/15 13:13	07/14/15 10:20
92258453008	**MW-25**	Water	07/09/15 11:30	07/14/15 10:20
92258453009	**MW-27**	Water	07/08/15 16:38	07/14/15 10:20
92258453010	**MW-28**	Water	07/08/15 17:12	07/14/15 10:20
92258453011	**DUP-1**	Water	07/08/15 12:00	07/14/15 10:20
92258453012	**EB-1**	Water	07/09/15 09:00	07/14/15 10:20
92258453013	**SEEP G**	Water	07/09/15 16:25	07/14/15 10:20
92258453014	**SEEP H**	Water	07/09/15 16:08	07/14/15 10:20
92258453015	**MANSON BRANCH #2**	Water	07/09/15 15:58	07/14/15 10:20
92258453016	**SEEP #2**	Water	07/09/15 16:40	07/14/15 10:20
92258453017	**MB #3**	Water	07/10/15 09:45	07/14/15 10:20
92258453018	**MB #5**	Water	07/10/15 10:20	07/14/15 10:20
92258453019	**MB #15**	Water	07/10/15 10:05	07/14/15 10:20
92258453020	**MB #16**	Water	07/10/15 10:40	07/14/15 10:20
92258453021	**TB-1**	Water	07/10/15 00:00	07/14/15 10:20
92258453022	**TK PURGE WATER**	Water	07/10/15 08:50	07/14/15 10:20

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SAMPLE ANALYTE COUNT

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92258453001	MW-3	EPA 8260	CCL	61	PASI-C
92258453002	MW-10	EPA 8260	CCL	61	PASI-C
92258453003	MW-22	EPA 8260	CCL	61	PASI-C
92258453004	MW-5	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92258453005	MW-14	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92258453006	MW-19	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92258453007	MW-20	EPA 8260	CCL	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92258453008	MW-25	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92258453009	MW-27	EPA 8260	CCL	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92258453010	MW-28	EPA 8260	CCL	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92258453011	DUP-1	EPA 8260	GAW	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92258453012	EB-1	EPA 8260	CCL	60	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92258453013	SEEP G	EPA 8260	CCL	61	PASI-C
92258453014	SEEP H	EPA 8260	GAW	61	PASI-C
92258453015	MANSON BRANCH #2	EPA 8260	GAW	61	PASI-C
92258453016	SEEP #2	EPA 8260	GAW	61	PASI-C
92258453017	MB #3	EPA 8260	GAW	61	PASI-C
92258453018	MB #5	EPA 8260	GAW	61	PASI-C
92258453019	MB #15	EPA 8260	GAW	61	PASI-C
92258453020	MB #16	EPA 8260	GAW	61	PASI-C
92258453021	TB-1	EPA 8260	CCL	61	PASI-C
92258453022	TK PURGE WATER	EPA 6010	JMW	7	PASI-A
		EPA 7470	SH1	1	PASI-A
		EPA 8260	GAW	61	PASI-C

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(704)875-9092

SUMMARY OF DETECTION

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92258453001	**MW-3**					
EPA 8260	Chloroform	4.0	ug/L	1.0	07/16/15 06:57	
EPA 8260	cis-1,2-Dichloroethene	0.20J	ug/L	1.0	07/16/15 06:57	
92258453002	**MW-10**					
EPA 8260	Chloroform	1.4	ug/L	1.0	07/16/15 07:14	
EPA 8260	1,1-Dichloroethene	0.83J	ug/L	1.0	07/16/15 07:14	
EPA 8260	Trichloroethene	1.6	ug/L	1.0	07/16/15 07:14	
92258453003	**MW-22**					
EPA 8260	Naphthalene	2.8	ug/L	1.0	07/16/15 07:31	
EPA 8260	Trichloroethene	1.2	ug/L	1.0	07/16/15 07:31	
92258453004	**MW-5**					
EPA 8260	Chloroform	2.3J	ug/L	4.0	07/18/15 05:18	
EPA 8260	1,2-Dichloroethane	0.59J	ug/L	4.0	07/18/15 05:18	B
EPA 8260	cis-1,2-Dichloroethene	1.3J	ug/L	4.0	07/18/15 05:18	
EPA 8260	Hexachloro-1,3-butadiene	5.3	ug/L	4.0	07/18/15 05:18	
EPA 8260	Methylene Chloride	10.4	ug/L	8.0	07/18/15 05:18	
EPA 8260	1,1,1,2-Tetrachloroethane	1.4J	ug/L	4.0	07/18/15 05:18	
EPA 8260	Tetrachloroethene	2.4J	ug/L	4.0	07/18/15 05:18	
EPA 8260	Trichloroethene	354	ug/L	4.0	07/18/15 05:18	
92258453005	**MW-14**					
EPA 8260	1,2-Dichloroethane	2.7J	ug/L	20.0	07/17/15 06:51	B
EPA 8260	1,1-Dichloroethene	44.4	ug/L	20.0	07/17/15 06:51	
EPA 8260	cis-1,2-Dichloroethene	222	ug/L	20.0	07/17/15 06:51	
EPA 8260	Methylene Chloride	44.6	ug/L	40.0	07/17/15 06:51	
EPA 8260	Trichloroethene	1730	ug/L	20.0	07/17/15 06:51	
92258453006	**MW-19**					
EPA 8260	1,1-Dichloroethene	32.3	ug/L	25.0	07/17/15 07:08	
EPA 8260	cis-1,2-Dichloroethene	20.4J	ug/L	25.0	07/17/15 07:08	
EPA 8260	Methylene Chloride	53.3	ug/L	50.0	07/17/15 07:08	
EPA 8260	Trichloroethene	1760	ug/L	25.0	07/17/15 07:08	
92258453007	**MW-20**					
EPA 8260	Benzene	0.37J	ug/L	1.0	07/16/15 07:48	
EPA 8260	1,1-Dichloroethene	8.9	ug/L	1.0	07/16/15 07:48	
EPA 8260	cis-1,2-Dichloroethene	407	ug/L	5.0	07/16/15 11:13	
EPA 8260	Vinyl chloride	4.7	ug/L	1.0	07/16/15 07:48	
92258453008	**MW-25**					
EPA 8260	1,1-Dichloroethene	22.8	ug/L	10.0	07/17/15 07:25	
EPA 8260	cis-1,2-Dichloroethene	748	ug/L	10.0	07/17/15 07:25	
EPA 8260	Methylene Chloride	15.4J	ug/L	20.0	07/17/15 07:25	
EPA 8260	Trichloroethene	2290	ug/L	25.0	07/18/15 10:08	
EPA 8260	Vinyl chloride	23.6	ug/L	10.0	07/17/15 07:25	
92258453009	**MW-27**					
EPA 8260	Chloroform	0.28J	ug/L	1.0	07/16/15 08:05	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SUMMARY OF DETECTION

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92258453009	**MW-27**					
EPA 8260	1,1-Dichloroethene	1.2	ug/L	1.0	07/16/15 08:05	
EPA 8260	cis-1,2-Dichloroethene	6.2	ug/L	1.0	07/16/15 08:05	
EPA 8260	Trichloroethene	17.0	ug/L	1.0	07/16/15 08:05	
92258453010	**MW-28**					
EPA 8260	1,1-Dichloroethene	3.6	ug/L	1.0	07/16/15 08:23	
EPA 8260	cis-1,2-Dichloroethene	23.5	ug/L	1.0	07/16/15 08:23	
EPA 8260	Trichloroethene	5.5	ug/L	1.0	07/16/15 08:23	
EPA 8260	Vinyl chloride	1.0	ug/L	1.0	07/16/15 08:23	
92258453011	**DUP-1**					
EPA 8260	Chloroform	2.2J	ug/L	4.0	07/18/15 05:35	
EPA 8260	1,2-Dichloroethane	0.63J	ug/L	4.0	07/18/15 05:35	B
EPA 8260	cis-1,2-Dichloroethene	1.6J	ug/L	4.0	07/18/15 05:35	
EPA 8260	Hexachloro-1,3-butadiene	6.6	ug/L	4.0	07/18/15 05:35	
EPA 8260	Methylene Chloride	5.7J	ug/L	8.0	07/18/15 05:35	
EPA 8260	1,1,1,2-Tetrachloroethane	1.4J	ug/L	4.0	07/18/15 05:35	
EPA 8260	Trichloroethene	352	ug/L	4.0	07/18/15 05:35	
92258453012	**EB-1**					
EPA 8260	Toluene	0.98J	ug/L	1.0	07/16/15 08:40	
92258453013	**SEEP G**					
EPA 8260	Chloromethane	0.20J	ug/L	1.0	07/16/15 08:57	
EPA 8260	1,1-Dichloroethene	2.4	ug/L	1.0	07/16/15 08:57	
EPA 8260	cis-1,2-Dichloroethene	20.2	ug/L	1.0	07/16/15 08:57	
EPA 8260	Toluene	0.46J	ug/L	1.0	07/16/15 08:57	
92258453014	**SEEP H**					
EPA 8260	Bromomethane	3.4	ug/L	2.0	07/18/15 06:10	
EPA 8260	Chloroform	0.75J	ug/L	1.0	07/18/15 06:10	
EPA 8260	1,1-Dichloroethane	0.63J	ug/L	1.0	07/18/15 06:10	
EPA 8260	1,2-Dichloroethane	0.16J	ug/L	1.0	07/18/15 06:10	B
EPA 8260	1,1-Dichloroethene	21.2	ug/L	1.0	07/18/15 06:10	
EPA 8260	cis-1,2-Dichloroethene	75.9	ug/L	1.0	07/18/15 06:10	
EPA 8260	1,1,1-Trichloroethane	1.4	ug/L	1.0	07/18/15 06:10	
EPA 8260	Trichloroethene	157	ug/L	1.0	07/18/15 06:10	
92258453015	**MANSON BRANCH #2**					
EPA 8260	Chloroethane	0.55J	ug/L	1.0	07/17/15 01:47	
EPA 8260	1,1-Dichloroethane	2.2	ug/L	1.0	07/17/15 01:47	
EPA 8260	1,2-Dichloroethane	0.55J	ug/L	1.0	07/17/15 01:47	B
EPA 8260	cis-1,2-Dichloroethene	3.3	ug/L	1.0	07/17/15 01:47	
EPA 8260	Vinyl chloride	12.4	ug/L	1.0	07/17/15 01:47	
92258453016	**SEEP #2**					
EPA 8260	1,2-Dichloroethane	0.15J	ug/L	1.0	07/17/15 02:04	B
EPA 8260	1,1-Dichloroethene	0.96J	ug/L	1.0	07/17/15 02:04	
EPA 8260	cis-1,2-Dichloroethene	13.4	ug/L	1.0	07/17/15 02:04	
EPA 8260	Trichloroethene	1.0	ug/L	1.0	07/17/15 02:04	

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SUMMARY OF DETECTION

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92258453017	**MB #3**					
EPA 8260	1,2-Dichloroethane	0.15J	ug/L	1.0	07/17/15 02:21	B
92258453018	**MB #5**					
EPA 8260	1,2-Dichloroethane	0.15J	ug/L	1.0	07/17/15 02:38	B
92258453021	**TB-1**					
EPA 8260	Methylene Chloride	1.1J	ug/L	2.0	07/16/15 06:40	C9
EPA 8260	Naphthalene	2.7	ug/L	1.0	07/16/15 06:40	
92258453022	**TK PURGE WATER**					
EPA 6010	Barium	27.0	ug/L	5.0	07/22/15 03:08	
EPA 6010	Chromium	10.0	ug/L	5.0	07/22/15 03:08	
EPA 6010	Lead	33.0	ug/L	5.0	07/22/15 03:08	
EPA 8260	Benzene	1.0J	ug/L	2.0	07/18/15 05:53	
EPA 8260	Bromomethane	6.6	ug/L	4.0	07/18/15 05:53	
EPA 8260	1,2-Dichloroethane	0.39J	ug/L	2.0	07/18/15 05:53	B
EPA 8260	1,1-Dichloroethene	2.6	ug/L	2.0	07/18/15 05:53	
EPA 8260	cis-1,2-Dichloroethene	106	ug/L	2.0	07/18/15 05:53	
EPA 8260	Methylene Chloride	2.4J	ug/L	4.0	07/18/15 05:53	
EPA 8260	Trichloroethene	199	ug/L	2.0	07/18/15 05:53	
EPA 8260	Vinyl chloride	8.1	ug/L	2.0	07/18/15 05:53	

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PROJECT NARRATIVE

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Amec Foster Wheeler, Georgia
Date: July 24, 2015

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Method: **EPA 7470**
Description: 7470 Mercury
Client: Amec Foster Wheeler, Georgia
Date: July 24, 2015

General Information:
1 sample was analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: July 24, 2015

General Information:
22 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/32572

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1509094)
  - 1,4-Dioxane (p-Dioxane)

QC Batch: MSV/32607

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1511366)
  - 1,4-Dioxane (p-Dioxane)

QC Batch: MSV/32630

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1512487)
  - 1,4-Dioxane (p-Dioxane)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: July 24, 2015

QC Batch: MSV/32607

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92258706001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1511369)
  - 1,4-Dioxane (p-Dioxane)

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1511369)
  - Bromomethane

QC Batch: MSV/32630

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92258519001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1512488)
  - 1,4-Dioxane (p-Dioxane)

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1512488)
  - 1,1-Dichloroethane
  - 1,1-Dichloropropene
  - Bromochloromethane
  - Methylene Chloride
  - Vinyl chloride
  - trans-1,2-Dichloroethene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MSV/32572

C9: Common Laboratory Contaminant.

- TB-1 (Lab ID: 92258453021)
  - Methylene Chloride

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PROJECT NARRATIVE

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM
Client: Amec Foster Wheeler, Georgia
Date: July 24, 2015

General Information:
9 samples were analyzed for EPA 8260B Mod.. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/32638

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92258453004

R1: RPD value was outside control limits.

- MSD (Lab ID: 1513183)
  - 1,4-Dioxane (p-Dioxane)

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-3 **Lab ID: 92258453001** Collected: 07/08/15 14:58 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/16/15 06:57	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/16/15 06:57	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/16/15 06:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/16/15 06:57	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/16/15 06:57	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/16/15 06:57	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/16/15 06:57	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/16/15 06:57	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/16/15 06:57	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/16/15 06:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/16/15 06:57	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/16/15 06:57	75-00-3	
Chloroform	**4.0**	ug/L	1.0	0.14	1		07/16/15 06:57	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/16/15 06:57	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/16/15 06:57	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/16/15 06:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/16/15 06:57	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/16/15 06:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/16/15 06:57	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/16/15 06:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/16/15 06:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/16/15 06:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 06:57	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/16/15 06:57	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/16/15 06:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/16/15 06:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		07/16/15 06:57	75-35-4	
cis-1,2-Dichloroethene	**0.20J**	ug/L	1.0	0.19	1		07/16/15 06:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/16/15 06:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/16/15 06:57	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/16/15 06:57	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/16/15 06:57	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/16/15 06:57	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/16/15 06:57	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/16/15 06:57	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/16/15 06:57	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/16/15 06:57	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/16/15 06:57	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/16/15 06:57	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/16/15 06:57	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/16/15 06:57	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/16/15 06:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/16/15 06:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/16/15 06:57	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/16/15 06:57	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/16/15 06:57	108-88-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-3 **Lab ID: 92258453001** Collected: 07/08/15 14:58 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 06:57	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/16/15 06:57	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/16/15 06:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/16/15 06:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/16/15 06:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/16/15 06:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/16/15 06:57	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/16/15 06:57	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/16/15 06:57	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/16/15 06:57	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/16/15 06:57	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/16/15 06:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		07/16/15 06:57	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		07/16/15 06:57	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		07/16/15 06:57	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-10 **Lab ID: 92258453002** Collected: 07/09/15 12:48 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/16/15 07:14	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/16/15 07:14	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/16/15 07:14	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/16/15 07:14	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/16/15 07:14	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/16/15 07:14	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/16/15 07:14	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/16/15 07:14	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/16/15 07:14	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/16/15 07:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/16/15 07:14	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/16/15 07:14	75-00-3	
Chloroform	**1.4**	ug/L	1.0	0.14	1		07/16/15 07:14	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/16/15 07:14	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/16/15 07:14	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/16/15 07:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/16/15 07:14	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/16/15 07:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/16/15 07:14	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/16/15 07:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/16/15 07:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/16/15 07:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 07:14	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/16/15 07:14	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/16/15 07:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/16/15 07:14	107-06-2	
1,1-Dichloroethene	**0.83J**	ug/L	1.0	0.56	1		07/16/15 07:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		07/16/15 07:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/16/15 07:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/16/15 07:14	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/16/15 07:14	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/16/15 07:14	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/16/15 07:14	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/16/15 07:14	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/16/15 07:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/16/15 07:14	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/16/15 07:14	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/16/15 07:14	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/16/15 07:14	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/16/15 07:14	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/16/15 07:14	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/16/15 07:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/16/15 07:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/16/15 07:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/16/15 07:14	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/16/15 07:14	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-10 **Lab ID: 92258453002** Collected: 07/09/15 12:48 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 07:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/16/15 07:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/16/15 07:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/16/15 07:14	79-00-5	
Trichloroethene	**1.6**	ug/L	1.0	0.47	1		07/16/15 07:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/16/15 07:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/16/15 07:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/16/15 07:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/16/15 07:14	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/16/15 07:14	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/16/15 07:14	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/16/15 07:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	112	%	70-130		1		07/16/15 07:14	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		07/16/15 07:14	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		07/16/15 07:14	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-22 **Lab ID: 92258453003** Collected: 07/09/15 15:00 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/16/15 07:31	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/16/15 07:31	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/16/15 07:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/16/15 07:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/16/15 07:31	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/16/15 07:31	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/16/15 07:31	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/16/15 07:31	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/16/15 07:31	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/16/15 07:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/16/15 07:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/16/15 07:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/16/15 07:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/16/15 07:31	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/16/15 07:31	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/16/15 07:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/16/15 07:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/16/15 07:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/16/15 07:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/16/15 07:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/16/15 07:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/16/15 07:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 07:31	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/16/15 07:31	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/16/15 07:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/16/15 07:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		07/16/15 07:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		07/16/15 07:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/16/15 07:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/16/15 07:31	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/16/15 07:31	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/16/15 07:31	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/16/15 07:31	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/16/15 07:31	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/16/15 07:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/16/15 07:31	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/16/15 07:31	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/16/15 07:31	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/16/15 07:31	75-09-2	
Naphthalene	**2.8**	ug/L	1.0	0.24	1		07/16/15 07:31	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/16/15 07:31	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/16/15 07:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/16/15 07:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/16/15 07:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/16/15 07:31	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/16/15 07:31	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-22 **Lab ID: 92258453003** Collected: 07/09/15 15:00 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 07:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/16/15 07:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/16/15 07:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/16/15 07:31	79-00-5	
Trichloroethene	**1.2**	ug/L	1.0	0.47	1		07/16/15 07:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/16/15 07:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/16/15 07:31	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/16/15 07:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/16/15 07:31	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/16/15 07:31	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/16/15 07:31	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/16/15 07:31	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		07/16/15 07:31	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		07/16/15 07:31	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		07/16/15 07:31	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-5 **Lab ID: 92258453004** Collected: 07/08/15 16:10 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	4.0	1.0	4		07/18/15 05:18	71-43-2	
Bromobenzene	ND	ug/L	4.0	1.2	4		07/18/15 05:18	108-86-1	
Bromochloromethane	ND	ug/L	4.0	0.68	4		07/18/15 05:18	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	0.72	4		07/18/15 05:18	75-27-4	
Bromoform	ND	ug/L	4.0	1.0	4		07/18/15 05:18	75-25-2	
Bromomethane	ND	ug/L	8.0	1.2	4		07/18/15 05:18	74-83-9	
n-Butylbenzene	ND	ug/L	4.0	1.6	4		07/18/15 05:18	104-51-8	
sec-Butylbenzene	ND	ug/L	4.0	1.5	4		07/18/15 05:18	135-98-8	
tert-Butylbenzene	ND	ug/L	4.0	1.6	4		07/18/15 05:18	98-06-6	
Carbon tetrachloride	ND	ug/L	4.0	1.0	4		07/18/15 05:18	56-23-5	
Chlorobenzene	ND	ug/L	4.0	0.92	4		07/18/15 05:18	108-90-7	
Chloroethane	ND	ug/L	4.0	2.2	4		07/18/15 05:18	75-00-3	
Chloroform	**2.3J**	ug/L	4.0	0.56	4		07/18/15 05:18	67-66-3	
Chloromethane	ND	ug/L	4.0	0.44	4		07/18/15 05:18	74-87-3	
2-Chlorotoluene	ND	ug/L	4.0	1.4	4		07/18/15 05:18	95-49-8	
4-Chlorotoluene	ND	ug/L	4.0	1.2	4		07/18/15 05:18	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	8.0	8.0	4		07/18/15 05:18	96-12-8	
Dibromochloromethane	ND	ug/L	4.0	0.84	4		07/18/15 05:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	4.0	1.1	4		07/18/15 05:18	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.84	4		07/18/15 05:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	4.0	1.2	4		07/18/15 05:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	4.0	0.96	4		07/18/15 05:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	4.0	1.3	4		07/18/15 05:18	106-46-7	
Dichlorodifluoromethane	ND	ug/L	4.0	0.84	4		07/18/15 05:18	75-71-8	
1,1-Dichloroethane	ND	ug/L	4.0	1.3	4		07/18/15 05:18	75-34-3	
1,2-Dichloroethane	**0.59J**	ug/L	4.0	0.48	4		07/18/15 05:18	107-06-2	B
1,1-Dichloroethene	ND	ug/L	4.0	2.2	4		07/18/15 05:18	75-35-4	
cis-1,2-Dichloroethene	**1.3J**	ug/L	4.0	0.76	4		07/18/15 05:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	4.0	2.0	4		07/18/15 05:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	4.0	1.1	4		07/18/15 05:18	78-87-5	
1,3-Dichloropropane	ND	ug/L	4.0	1.1	4		07/18/15 05:18	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	0.52	4		07/18/15 05:18	594-20-7	
1,1-Dichloropropene	ND	ug/L	4.0	2.0	4		07/18/15 05:18	563-58-6	
Ethylbenzene	ND	ug/L	4.0	1.2	4		07/18/15 05:18	100-41-4	
Hexachloro-1,3-butadiene	**5.3**	ug/L	4.0	2.8	4		07/18/15 05:18	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1.6	4		07/18/15 05:18	98-82-8	
p-Isopropyltoluene	ND	ug/L	4.0	1.2	4		07/18/15 05:18	99-87-6	
Methylene Chloride	**10.4**	ug/L	8.0	3.9	4		07/18/15 05:18	75-09-2	
Naphthalene	ND	ug/L	4.0	0.96	4		07/18/15 05:18	91-20-3	
n-Propylbenzene	ND	ug/L	4.0	1.7	4		07/18/15 05:18	103-65-1	
Styrene	ND	ug/L	4.0	1.0	4		07/18/15 05:18	100-42-5	
1,1,1,2-Tetrachloroethane	**1.4J**	ug/L	4.0	1.3	4		07/18/15 05:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	4.0	1.6	4		07/18/15 05:18	79-34-5	
Tetrachloroethene	**2.4J**	ug/L	4.0	1.8	4		07/18/15 05:18	127-18-4	
Toluene	ND	ug/L	4.0	1.0	4		07/18/15 05:18	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1.3	4		07/18/15 05:18	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-5 **Lab ID: 92258453004** Collected: 07/08/15 16:10 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1.4	4		07/18/15 05:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	4.0	1.9	4		07/18/15 05:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1.2	4		07/18/15 05:18	79-00-5	
Trichloroethene	**354**	ug/L	4.0	1.9	4		07/18/15 05:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	0.80	4		07/18/15 05:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1.6	4		07/18/15 05:18	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	4.0	1.2	4		07/18/15 05:18	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	4.0	1.4	4		07/18/15 05:18	108-67-8	
Vinyl chloride	ND	ug/L	4.0	2.5	4		07/18/15 05:18	75-01-4	
m&p-Xylene	ND	ug/L	8.0	2.6	4		07/18/15 05:18	179601-23-1	
o-Xylene	ND	ug/L	4.0	0.92	4		07/18/15 05:18	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		4		07/18/15 05:18	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130		4		07/18/15 05:18	17060-07-0	
Toluene-d8 (S)	101	%	70-130		4		07/18/15 05:18	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		07/20/15 13:02	123-91-1	R1
Surrogates									
1,2-Dichloroethane-d4 (S)	109	%	50-150		1		07/20/15 13:02	17060-07-0	
Toluene-d8 (S)	96	%	50-150		1		07/20/15 13:02	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-14 **Lab ID: 92258453005** Collected: 07/08/15 11:10 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	20.0	5.0	20		07/17/15 06:51	71-43-2	
Bromobenzene	ND	ug/L	20.0	6.0	20		07/17/15 06:51	108-86-1	
Bromochloromethane	ND	ug/L	20.0	3.4	20		07/17/15 06:51	74-97-5	
Bromodichloromethane	ND	ug/L	20.0	3.6	20		07/17/15 06:51	75-27-4	
Bromoform	ND	ug/L	20.0	5.2	20		07/17/15 06:51	75-25-2	
Bromomethane	ND	ug/L	40.0	5.8	20		07/17/15 06:51	74-83-9	
n-Butylbenzene	ND	ug/L	20.0	8.2	20		07/17/15 06:51	104-51-8	
sec-Butylbenzene	ND	ug/L	20.0	7.6	20		07/17/15 06:51	135-98-8	
tert-Butylbenzene	ND	ug/L	20.0	8.0	20		07/17/15 06:51	98-06-6	
Carbon tetrachloride	ND	ug/L	20.0	5.0	20		07/17/15 06:51	56-23-5	
Chlorobenzene	ND	ug/L	20.0	4.6	20		07/17/15 06:51	108-90-7	
Chloroethane	ND	ug/L	20.0	10.8	20		07/17/15 06:51	75-00-3	
Chloroform	ND	ug/L	20.0	2.8	20		07/17/15 06:51	67-66-3	
Chloromethane	ND	ug/L	20.0	2.2	20		07/17/15 06:51	74-87-3	
2-Chlorotoluene	ND	ug/L	20.0	7.0	20		07/17/15 06:51	95-49-8	
4-Chlorotoluene	ND	ug/L	20.0	6.2	20		07/17/15 06:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	40.0	40.0	20		07/17/15 06:51	96-12-8	
Dibromochloromethane	ND	ug/L	20.0	4.2	20		07/17/15 06:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	20.0	5.4	20		07/17/15 06:51	106-93-4	
Dibromomethane	ND	ug/L	20.0	4.2	20		07/17/15 06:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	20.0	6.0	20		07/17/15 06:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	20.0	4.8	20		07/17/15 06:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	20.0	6.6	20		07/17/15 06:51	106-46-7	
Dichlorodifluoromethane	ND	ug/L	20.0	4.2	20		07/17/15 06:51	75-71-8	
1,1-Dichloroethane	ND	ug/L	20.0	6.4	20		07/17/15 06:51	75-34-3	
1,2-Dichloroethane	**2.7J**	ug/L	20.0	2.4	20		07/17/15 06:51	107-06-2	B
1,1-Dichloroethene	**44.4**	ug/L	20.0	11.2	20		07/17/15 06:51	75-35-4	
cis-1,2-Dichloroethene	**222**	ug/L	20.0	3.8	20		07/17/15 06:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	20.0	9.8	20		07/17/15 06:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	20.0	5.4	20		07/17/15 06:51	78-87-5	
1,3-Dichloropropane	ND	ug/L	20.0	5.6	20		07/17/15 06:51	142-28-9	
2,2-Dichloropropane	ND	ug/L	20.0	2.6	20		07/17/15 06:51	594-20-7	
1,1-Dichloropropene	ND	ug/L	20.0	9.8	20		07/17/15 06:51	563-58-6	
Ethylbenzene	ND	ug/L	20.0	6.0	20		07/17/15 06:51	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	20.0	14.2	20		07/17/15 06:51	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	20.0	8.0	20		07/17/15 06:51	98-82-8	
p-Isopropyltoluene	ND	ug/L	20.0	6.2	20		07/17/15 06:51	99-87-6	
Methylene Chloride	**44.6**	ug/L	40.0	19.4	20		07/17/15 06:51	75-09-2	
Naphthalene	ND	ug/L	20.0	4.8	20		07/17/15 06:51	91-20-3	
n-Propylbenzene	ND	ug/L	20.0	8.4	20		07/17/15 06:51	103-65-1	
Styrene	ND	ug/L	20.0	5.2	20		07/17/15 06:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	20.0	6.6	20		07/17/15 06:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	20.0	8.0	20		07/17/15 06:51	79-34-5	
Tetrachloroethene	ND	ug/L	20.0	9.2	20		07/17/15 06:51	127-18-4	
Toluene	ND	ug/L	20.0	5.2	20		07/17/15 06:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	20.0	6.6	20		07/17/15 06:51	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-14 **Lab ID: 92258453005** Collected: 07/08/15 11:10 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	20.0	7.0	20		07/17/15 06:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	20.0	9.6	20		07/17/15 06:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	20.0	5.8	20		07/17/15 06:51	79-00-5	
Trichloroethene	**1730**	ug/L	20.0	9.4	20		07/17/15 06:51	79-01-6	
Trichlorofluoromethane	ND	ug/L	20.0	4.0	20		07/17/15 06:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	20.0	8.2	20		07/17/15 06:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	20.0	6.2	20		07/17/15 06:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	20.0	7.2	20		07/17/15 06:51	108-67-8	
Vinyl chloride	ND	ug/L	20.0	12.4	20		07/17/15 06:51	75-01-4	
m&p-Xylene	ND	ug/L	40.0	13.2	20		07/17/15 06:51	179601-23-1	
o-Xylene	ND	ug/L	20.0	4.6	20		07/17/15 06:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		20		07/17/15 06:51	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		20		07/17/15 06:51	17060-07-0	
Toluene-d8 (S)	98	%	70-130		20		07/17/15 06:51	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	8.0	7.6	4		07/20/15 14:04	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	96	%	50-150		4		07/20/15 14:04	17060-07-0	
Toluene-d8 (S)	98	%	50-150		4		07/20/15 14:04	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-19 **Lab ID: 92258453006** Collected: 07/08/15 13:35 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	25.0	6.2	25		07/17/15 07:08	71-43-2	
Bromobenzene	ND	ug/L	25.0	7.5	25		07/17/15 07:08	108-86-1	
Bromochloromethane	ND	ug/L	25.0	4.2	25		07/17/15 07:08	74-97-5	
Bromodichloromethane	ND	ug/L	25.0	4.5	25		07/17/15 07:08	75-27-4	
Bromoform	ND	ug/L	25.0	6.5	25		07/17/15 07:08	75-25-2	
Bromomethane	ND	ug/L	50.0	7.2	25		07/17/15 07:08	74-83-9	
n-Butylbenzene	ND	ug/L	25.0	10.2	25		07/17/15 07:08	104-51-8	
sec-Butylbenzene	ND	ug/L	25.0	9.5	25		07/17/15 07:08	135-98-8	
tert-Butylbenzene	ND	ug/L	25.0	10.0	25		07/17/15 07:08	98-06-6	
Carbon tetrachloride	ND	ug/L	25.0	6.2	25		07/17/15 07:08	56-23-5	
Chlorobenzene	ND	ug/L	25.0	5.8	25		07/17/15 07:08	108-90-7	
Chloroethane	ND	ug/L	25.0	13.5	25		07/17/15 07:08	75-00-3	
Chloroform	ND	ug/L	25.0	3.5	25		07/17/15 07:08	67-66-3	
Chloromethane	ND	ug/L	25.0	2.8	25		07/17/15 07:08	74-87-3	
2-Chlorotoluene	ND	ug/L	25.0	8.8	25		07/17/15 07:08	95-49-8	
4-Chlorotoluene	ND	ug/L	25.0	7.8	25		07/17/15 07:08	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	50.0	50.0	25		07/17/15 07:08	96-12-8	
Dibromochloromethane	ND	ug/L	25.0	5.2	25		07/17/15 07:08	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	25.0	6.8	25		07/17/15 07:08	106-93-4	
Dibromomethane	ND	ug/L	25.0	5.2	25		07/17/15 07:08	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	25.0	7.5	25		07/17/15 07:08	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	25.0	6.0	25		07/17/15 07:08	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	25.0	8.2	25		07/17/15 07:08	106-46-7	
Dichlorodifluoromethane	ND	ug/L	25.0	5.2	25		07/17/15 07:08	75-71-8	
1,1-Dichloroethane	ND	ug/L	25.0	8.0	25		07/17/15 07:08	75-34-3	
1,2-Dichloroethane	ND	ug/L	25.0	3.0	25		07/17/15 07:08	107-06-2	
1,1-Dichloroethene	**32.3**	ug/L	25.0	14.0	25		07/17/15 07:08	75-35-4	
cis-1,2-Dichloroethene	**20.4J**	ug/L	25.0	4.8	25		07/17/15 07:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	25.0	12.2	25		07/17/15 07:08	156-60-5	
1,2-Dichloropropane	ND	ug/L	25.0	6.8	25		07/17/15 07:08	78-87-5	
1,3-Dichloropropane	ND	ug/L	25.0	7.0	25		07/17/15 07:08	142-28-9	
2,2-Dichloropropane	ND	ug/L	25.0	3.2	25		07/17/15 07:08	594-20-7	
1,1-Dichloropropene	ND	ug/L	25.0	12.2	25		07/17/15 07:08	563-58-6	
Ethylbenzene	ND	ug/L	25.0	7.5	25		07/17/15 07:08	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	25.0	17.8	25		07/17/15 07:08	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	25.0	10.0	25		07/17/15 07:08	98-82-8	
p-Isopropyltoluene	ND	ug/L	25.0	7.8	25		07/17/15 07:08	99-87-6	
Methylene Chloride	**53.3**	ug/L	50.0	24.2	25		07/17/15 07:08	75-09-2	
Naphthalene	ND	ug/L	25.0	6.0	25		07/17/15 07:08	91-20-3	
n-Propylbenzene	ND	ug/L	25.0	10.5	25		07/17/15 07:08	103-65-1	
Styrene	ND	ug/L	25.0	6.5	25		07/17/15 07:08	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	25.0	8.2	25		07/17/15 07:08	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	25.0	10.0	25		07/17/15 07:08	79-34-5	
Tetrachloroethene	ND	ug/L	25.0	11.5	25		07/17/15 07:08	127-18-4	
Toluene	ND	ug/L	25.0	6.5	25		07/17/15 07:08	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	25.0	8.2	25		07/17/15 07:08	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-19 **Lab ID: 92258453006** Collected: 07/08/15 13:35 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	25.0	8.8	25		07/17/15 07:08	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	25.0	12.0	25		07/17/15 07:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	25.0	7.2	25		07/17/15 07:08	79-00-5	
Trichloroethene	**1760**	ug/L	25.0	11.8	25		07/17/15 07:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	25.0	5.0	25		07/17/15 07:08	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	25.0	10.2	25		07/17/15 07:08	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	25.0	7.8	25		07/17/15 07:08	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	25.0	9.0	25		07/17/15 07:08	108-67-8	
Vinyl chloride	ND	ug/L	25.0	15.5	25		07/17/15 07:08	75-01-4	
m&p-Xylene	ND	ug/L	50.0	16.5	25		07/17/15 07:08	179601-23-1	
o-Xylene	ND	ug/L	25.0	5.8	25		07/17/15 07:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		25		07/17/15 07:08	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		25		07/17/15 07:08	17060-07-0	
Toluene-d8 (S)	102	%	70-130		25		07/17/15 07:08	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	10.0	9.5	5		07/20/15 14:25	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	119	%	50-150		5		07/20/15 14:25	17060-07-0	
Toluene-d8 (S)	96	%	50-150		5		07/20/15 14:25	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-20 **Lab ID: 92258453007** Collected: 07/08/15 13:13 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	**0.37J**	ug/L	1.0	0.25	1		07/16/15 07:48	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/16/15 07:48	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/16/15 07:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/16/15 07:48	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/16/15 07:48	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/16/15 07:48	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/16/15 07:48	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/16/15 07:48	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/16/15 07:48	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/16/15 07:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/16/15 07:48	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/16/15 07:48	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/16/15 07:48	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/16/15 07:48	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/16/15 07:48	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/16/15 07:48	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/16/15 07:48	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/16/15 07:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/16/15 07:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/16/15 07:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/16/15 07:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/16/15 07:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 07:48	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/16/15 07:48	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/16/15 07:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/16/15 07:48	107-06-2	
1,1-Dichloroethene	**8.9**	ug/L	1.0	0.56	1		07/16/15 07:48	75-35-4	
cis-1,2-Dichloroethene	**407**	ug/L	5.0	0.95	5		07/16/15 11:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/16/15 07:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/16/15 07:48	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/16/15 07:48	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/16/15 07:48	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/16/15 07:48	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/16/15 07:48	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/16/15 07:48	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/16/15 07:48	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/16/15 07:48	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/16/15 07:48	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/16/15 07:48	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/16/15 07:48	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/16/15 07:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/16/15 07:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/16/15 07:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/16/15 07:48	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/16/15 07:48	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 07:48	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-20 **Lab ID: 92258453007** Collected: 07/08/15 13:13 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/16/15 07:48	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/16/15 07:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/16/15 07:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/16/15 07:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/16/15 07:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/16/15 07:48	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/16/15 07:48	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/16/15 07:48	108-67-8	
Vinyl chloride	**4.7**	ug/L	1.0	0.62	1		07/16/15 07:48	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/16/15 07:48	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/16/15 07:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	111	%	70-130		1		07/16/15 07:48	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		07/16/15 07:48	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		07/16/15 07:48	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	12.0	11.4	6		07/20/15 14:46	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	106	%	50-150		6		07/20/15 14:46	17060-07-0	
Toluene-d8 (S)	97	%	50-150		6		07/20/15 14:46	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-25 **Lab ID: 92258453008** Collected: 07/09/15 11:30 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	10.0	2.5	10		07/17/15 07:25	71-43-2	
Bromobenzene	ND	ug/L	10.0	3.0	10		07/17/15 07:25	108-86-1	
Bromochloromethane	ND	ug/L	10.0	1.7	10		07/17/15 07:25	74-97-5	
Bromodichloromethane	ND	ug/L	10.0	1.8	10		07/17/15 07:25	75-27-4	
Bromoform	ND	ug/L	10.0	2.6	10		07/17/15 07:25	75-25-2	
Bromomethane	ND	ug/L	20.0	2.9	10		07/17/15 07:25	74-83-9	
n-Butylbenzene	ND	ug/L	10.0	4.1	10		07/17/15 07:25	104-51-8	
sec-Butylbenzene	ND	ug/L	10.0	3.8	10		07/17/15 07:25	135-98-8	
tert-Butylbenzene	ND	ug/L	10.0	4.0	10		07/17/15 07:25	98-06-6	
Carbon tetrachloride	ND	ug/L	10.0	2.5	10		07/17/15 07:25	56-23-5	
Chlorobenzene	ND	ug/L	10.0	2.3	10		07/17/15 07:25	108-90-7	
Chloroethane	ND	ug/L	10.0	5.4	10		07/17/15 07:25	75-00-3	
Chloroform	ND	ug/L	10.0	1.4	10		07/17/15 07:25	67-66-3	
Chloromethane	ND	ug/L	10.0	1.1	10		07/17/15 07:25	74-87-3	
2-Chlorotoluene	ND	ug/L	10.0	3.5	10		07/17/15 07:25	95-49-8	
4-Chlorotoluene	ND	ug/L	10.0	3.1	10		07/17/15 07:25	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	20.0	20.0	10		07/17/15 07:25	96-12-8	
Dibromochloromethane	ND	ug/L	10.0	2.1	10		07/17/15 07:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	10.0	2.7	10		07/17/15 07:25	106-93-4	
Dibromomethane	ND	ug/L	10.0	2.1	10		07/17/15 07:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	10.0	3.0	10		07/17/15 07:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	10.0	2.4	10		07/17/15 07:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	10.0	3.3	10		07/17/15 07:25	106-46-7	
Dichlorodifluoromethane	ND	ug/L	10.0	2.1	10		07/17/15 07:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	10.0	3.2	10		07/17/15 07:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	10.0	1.2	10		07/17/15 07:25	107-06-2	
1,1-Dichloroethene	**22.8**	ug/L	10.0	5.6	10		07/17/15 07:25	75-35-4	
cis-1,2-Dichloroethene	**748**	ug/L	10.0	1.9	10		07/17/15 07:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	10.0	4.9	10		07/17/15 07:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	10.0	2.7	10		07/17/15 07:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	10.0	2.8	10		07/17/15 07:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	10.0	1.3	10		07/17/15 07:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	10.0	4.9	10		07/17/15 07:25	563-58-6	
Ethylbenzene	ND	ug/L	10.0	3.0	10		07/17/15 07:25	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	10.0	7.1	10		07/17/15 07:25	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	10.0	4.0	10		07/17/15 07:25	98-82-8	
p-Isopropyltoluene	ND	ug/L	10.0	3.1	10		07/17/15 07:25	99-87-6	
Methylene Chloride	**15.4J**	ug/L	20.0	9.7	10		07/17/15 07:25	75-09-2	
Naphthalene	ND	ug/L	10.0	2.4	10		07/17/15 07:25	91-20-3	
n-Propylbenzene	ND	ug/L	10.0	4.2	10		07/17/15 07:25	103-65-1	
Styrene	ND	ug/L	10.0	2.6	10		07/17/15 07:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	10.0	3.3	10		07/17/15 07:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	10.0	4.0	10		07/17/15 07:25	79-34-5	
Tetrachloroethene	ND	ug/L	10.0	4.6	10		07/17/15 07:25	127-18-4	
Toluene	ND	ug/L	10.0	2.6	10		07/17/15 07:25	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	10.0	3.3	10		07/17/15 07:25	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-25 **Lab ID: 92258453008** Collected: 07/09/15 11:30 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	10.0	3.5	10		07/17/15 07:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	10.0	4.8	10		07/17/15 07:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	10.0	2.9	10		07/17/15 07:25	79-00-5	
Trichloroethene	**2290**	ug/L	25.0	11.8	25		07/18/15 10:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	10.0	2.0	10		07/17/15 07:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	10.0	4.1	10		07/17/15 07:25	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	10.0	3.1	10		07/17/15 07:25	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	10.0	3.6	10		07/17/15 07:25	108-67-8	
Vinyl chloride	**23.6**	ug/L	10.0	6.2	10		07/17/15 07:25	75-01-4	
m&p-Xylene	ND	ug/L	20.0	6.6	10		07/17/15 07:25	179601-23-1	
o-Xylene	ND	ug/L	10.0	2.3	10		07/17/15 07:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		10		07/17/15 07:25	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		10		07/17/15 07:25	17060-07-0	
Toluene-d8 (S)	98	%	70-130		10		07/17/15 07:25	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	14.0	13.3	7		07/20/15 15:07	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	107	%	50-150		7		07/20/15 15:07	17060-07-0	
Toluene-d8 (S)	96	%	50-150		7		07/20/15 15:07	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-27 **Lab ID: 92258453009** Collected: 07/08/15 16:38 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/16/15 08:05	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:05	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/16/15 08:05	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/16/15 08:05	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/16/15 08:05	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/16/15 08:05	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/16/15 08:05	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/16/15 08:05	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/16/15 08:05	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/16/15 08:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/16/15 08:05	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/16/15 08:05	75-00-3	
Chloroform	**0.28J**	ug/L	1.0	0.14	1		07/16/15 08:05	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/16/15 08:05	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/16/15 08:05	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/16/15 08:05	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/16/15 08:05	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/16/15 08:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/16/15 08:05	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/16/15 08:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/16/15 08:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 08:05	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/16/15 08:05	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/16/15 08:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/16/15 08:05	107-06-2	
1,1-Dichloroethene	**1.2**	ug/L	1.0	0.56	1		07/16/15 08:05	75-35-4	
cis-1,2-Dichloroethene	**6.2**	ug/L	1.0	0.19	1		07/16/15 08:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/16/15 08:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/16/15 08:05	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/16/15 08:05	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/16/15 08:05	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/16/15 08:05	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:05	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/16/15 08:05	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/16/15 08:05	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/16/15 08:05	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/16/15 08:05	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/16/15 08:05	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/16/15 08:05	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/16/15 08:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/16/15 08:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/16/15 08:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/16/15 08:05	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/16/15 08:05	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 08:05	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-27 **Lab ID: 92258453009** Collected: 07/08/15 16:38 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/16/15 08:05	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/16/15 08:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/16/15 08:05	79-00-5	
Trichloroethene	**17.0**	ug/L	1.0	0.47	1		07/16/15 08:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/16/15 08:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/16/15 08:05	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/16/15 08:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/16/15 08:05	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/16/15 08:05	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/16/15 08:05	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/16/15 08:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		07/16/15 08:05	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		07/16/15 08:05	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		07/16/15 08:05	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	16.0	15.2	8		07/20/15 15:27	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	118	%	50-150		8		07/20/15 15:27	17060-07-0	
Toluene-d8 (S)	95	%	50-150		8		07/20/15 15:27	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-28 **Lab ID: 92258453010** Collected: 07/08/15 17:12 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/16/15 08:23	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:23	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/16/15 08:23	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/16/15 08:23	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/16/15 08:23	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/16/15 08:23	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/16/15 08:23	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/16/15 08:23	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/16/15 08:23	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/16/15 08:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/16/15 08:23	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/16/15 08:23	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/16/15 08:23	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/16/15 08:23	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/16/15 08:23	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/16/15 08:23	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/16/15 08:23	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/16/15 08:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/16/15 08:23	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/16/15 08:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/16/15 08:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 08:23	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/16/15 08:23	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/16/15 08:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/16/15 08:23	107-06-2	
1,1-Dichloroethene	**3.6**	ug/L	1.0	0.56	1		07/16/15 08:23	75-35-4	
cis-1,2-Dichloroethene	**23.5**	ug/L	1.0	0.19	1		07/16/15 08:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/16/15 08:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/16/15 08:23	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/16/15 08:23	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/16/15 08:23	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/16/15 08:23	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:23	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/16/15 08:23	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/16/15 08:23	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/16/15 08:23	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/16/15 08:23	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/16/15 08:23	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/16/15 08:23	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/16/15 08:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/16/15 08:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/16/15 08:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/16/15 08:23	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/16/15 08:23	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 08:23	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MW-28 **Lab ID: 92258453010** Collected: 07/08/15 17:12 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/16/15 08:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/16/15 08:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/16/15 08:23	79-00-5	
Trichloroethene	**5.5**	ug/L	1.0	0.47	1		07/16/15 08:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/16/15 08:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/16/15 08:23	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/16/15 08:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/16/15 08:23	108-67-8	
Vinyl chloride	**1.0**	ug/L	1.0	0.62	1		07/16/15 08:23	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/16/15 08:23	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/16/15 08:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		07/16/15 08:23	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		07/16/15 08:23	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/16/15 08:23	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	18.0	17.1	9		07/20/15 15:48	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	116	%	50-150		9		07/20/15 15:48	17060-07-0	
Toluene-d8 (S)	95	%	50-150		9		07/20/15 15:48	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: DUP-1 **Lab ID: 92258453011** Collected: 07/08/15 12:00 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	4.0	1.0	4		07/18/15 05:35	71-43-2	
Bromobenzene	ND	ug/L	4.0	1.2	4		07/18/15 05:35	108-86-1	
Bromochloromethane	ND	ug/L	4.0	0.68	4		07/18/15 05:35	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	0.72	4		07/18/15 05:35	75-27-4	
Bromoform	ND	ug/L	4.0	1.0	4		07/18/15 05:35	75-25-2	
Bromomethane	ND	ug/L	8.0	1.2	4		07/18/15 05:35	74-83-9	
n-Butylbenzene	ND	ug/L	4.0	1.6	4		07/18/15 05:35	104-51-8	
sec-Butylbenzene	ND	ug/L	4.0	1.5	4		07/18/15 05:35	135-98-8	
tert-Butylbenzene	ND	ug/L	4.0	1.6	4		07/18/15 05:35	98-06-6	
Carbon tetrachloride	ND	ug/L	4.0	1.0	4		07/18/15 05:35	56-23-5	
Chlorobenzene	ND	ug/L	4.0	0.92	4		07/18/15 05:35	108-90-7	
Chloroethane	ND	ug/L	4.0	2.2	4		07/18/15 05:35	75-00-3	
Chloroform	**2.2J**	ug/L	4.0	0.56	4		07/18/15 05:35	67-66-3	
Chloromethane	ND	ug/L	4.0	0.44	4		07/18/15 05:35	74-87-3	
2-Chlorotoluene	ND	ug/L	4.0	1.4	4		07/18/15 05:35	95-49-8	
4-Chlorotoluene	ND	ug/L	4.0	1.2	4		07/18/15 05:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	8.0	8.0	4		07/18/15 05:35	96-12-8	
Dibromochloromethane	ND	ug/L	4.0	0.84	4		07/18/15 05:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	4.0	1.1	4		07/18/15 05:35	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.84	4		07/18/15 05:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	4.0	1.2	4		07/18/15 05:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	4.0	0.96	4		07/18/15 05:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	4.0	1.3	4		07/18/15 05:35	106-46-7	
Dichlorodifluoromethane	ND	ug/L	4.0	0.84	4		07/18/15 05:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	4.0	1.3	4		07/18/15 05:35	75-34-3	
1,2-Dichloroethane	**0.63J**	ug/L	4.0	0.48	4		07/18/15 05:35	107-06-2	B
1,1-Dichloroethene	ND	ug/L	4.0	2.2	4		07/18/15 05:35	75-35-4	
cis-1,2-Dichloroethene	**1.6J**	ug/L	4.0	0.76	4		07/18/15 05:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	4.0	2.0	4		07/18/15 05:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	4.0	1.1	4		07/18/15 05:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	4.0	1.1	4		07/18/15 05:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	0.52	4		07/18/15 05:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	4.0	2.0	4		07/18/15 05:35	563-58-6	
Ethylbenzene	ND	ug/L	4.0	1.2	4		07/18/15 05:35	100-41-4	
Hexachloro-1,3-butadiene	**6.6**	ug/L	4.0	2.8	4		07/18/15 05:35	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1.6	4		07/18/15 05:35	98-82-8	
p-Isopropyltoluene	ND	ug/L	4.0	1.2	4		07/18/15 05:35	99-87-6	
Methylene Chloride	**5.7J**	ug/L	8.0	3.9	4		07/18/15 05:35	75-09-2	
Naphthalene	ND	ug/L	4.0	0.96	4		07/18/15 05:35	91-20-3	
n-Propylbenzene	ND	ug/L	4.0	1.7	4		07/18/15 05:35	103-65-1	
Styrene	ND	ug/L	4.0	1.0	4		07/18/15 05:35	100-42-5	
1,1,1,2-Tetrachloroethane	**1.4J**	ug/L	4.0	1.3	4		07/18/15 05:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	4.0	1.6	4		07/18/15 05:35	79-34-5	
Tetrachloroethene	ND	ug/L	4.0	1.8	4		07/18/15 05:35	127-18-4	
Toluene	ND	ug/L	4.0	1.0	4		07/18/15 05:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1.3	4		07/18/15 05:35	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: DUP-1 **Lab ID: 92258453011** Collected: 07/08/15 12:00 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1.4	4		07/18/15 05:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	4.0	1.9	4		07/18/15 05:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1.2	4		07/18/15 05:35	79-00-5	
Trichloroethene	**352**	ug/L	4.0	1.9	4		07/18/15 05:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	0.80	4		07/18/15 05:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1.6	4		07/18/15 05:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	4.0	1.2	4		07/18/15 05:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	4.0	1.4	4		07/18/15 05:35	108-67-8	
Vinyl chloride	ND	ug/L	4.0	2.5	4		07/18/15 05:35	75-01-4	
m&p-Xylene	ND	ug/L	8.0	2.6	4		07/18/15 05:35	179601-23-1	
o-Xylene	ND	ug/L	4.0	0.92	4		07/18/15 05:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		4		07/18/15 05:35	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130		4		07/18/15 05:35	17060-07-0	
Toluene-d8 (S)	101	%	70-130		4		07/18/15 05:35	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		07/20/15 16:09	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	121	%	50-150		1		07/20/15 16:09	17060-07-0	
Toluene-d8 (S)	96	%	50-150		1		07/20/15 16:09	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: EB-1 **Lab ID: 92258453012** Collected: 07/09/15 09:00 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/16/15 08:40	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:40	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/16/15 08:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/16/15 08:40	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/16/15 08:40	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/16/15 08:40	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/16/15 08:40	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/16/15 08:40	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/16/15 08:40	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/16/15 08:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/16/15 08:40	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/16/15 08:40	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/16/15 08:40	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/16/15 08:40	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/16/15 08:40	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/16/15 08:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/16/15 08:40	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/16/15 08:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/16/15 08:40	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/16/15 08:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/16/15 08:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 08:40	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/16/15 08:40	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/16/15 08:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/16/15 08:40	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		07/16/15 08:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		07/16/15 08:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/16/15 08:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/16/15 08:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/16/15 08:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/16/15 08:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/16/15 08:40	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/16/15 08:40	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/16/15 08:40	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/16/15 08:40	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/16/15 08:40	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/16/15 08:40	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/16/15 08:40	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/16/15 08:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/16/15 08:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/16/15 08:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/16/15 08:40	127-18-4	
Toluene	**0.98J**	ug/L	1.0	0.26	1		07/16/15 08:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 08:40	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: EB-1 **Lab ID: 92258453012** Collected: 07/09/15 09:00 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/16/15 08:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/16/15 08:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/16/15 08:40	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/16/15 08:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/16/15 08:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/16/15 08:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/16/15 08:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/16/15 08:40	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/16/15 08:40	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/16/15 08:40	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/16/15 08:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		07/16/15 08:40	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		07/16/15 08:40	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		07/16/15 08:40	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		07/20/15 16:30	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	116	%	50-150		1		07/20/15 16:30	17060-07-0	
Toluene-d8 (S)	96	%	50-150		1		07/20/15 16:30	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: SEEP G **Lab ID: 92258453013** Collected: 07/09/15 16:25 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/16/15 08:57	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:57	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/16/15 08:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/16/15 08:57	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/16/15 08:57	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/16/15 08:57	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/16/15 08:57	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/16/15 08:57	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/16/15 08:57	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/16/15 08:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/16/15 08:57	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/16/15 08:57	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/16/15 08:57	67-66-3	
Chloromethane	**0.20J**	ug/L	1.0	0.11	1		07/16/15 08:57	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/16/15 08:57	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/16/15 08:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/16/15 08:57	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/16/15 08:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/16/15 08:57	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/16/15 08:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/16/15 08:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 08:57	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/16/15 08:57	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/16/15 08:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/16/15 08:57	107-06-2	
1,1-Dichloroethene	**2.4**	ug/L	1.0	0.56	1		07/16/15 08:57	75-35-4	
cis-1,2-Dichloroethene	**20.2**	ug/L	1.0	0.19	1		07/16/15 08:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/16/15 08:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/16/15 08:57	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/16/15 08:57	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/16/15 08:57	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/16/15 08:57	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/16/15 08:57	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/16/15 08:57	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/16/15 08:57	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/16/15 08:57	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/16/15 08:57	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/16/15 08:57	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/16/15 08:57	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/16/15 08:57	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/16/15 08:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/16/15 08:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/16/15 08:57	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/16/15 08:57	127-18-4	
Toluene	**0.46J**	ug/L	1.0	0.26	1		07/16/15 08:57	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: SEEP G **Lab ID: 92258453013** Collected: 07/09/15 16:25 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 08:57	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/16/15 08:57	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/16/15 08:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/16/15 08:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/16/15 08:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/16/15 08:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/16/15 08:57	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/16/15 08:57	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/16/15 08:57	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/16/15 08:57	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/16/15 08:57	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/16/15 08:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		07/16/15 08:57	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		07/16/15 08:57	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		07/16/15 08:57	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: SEEP H **Lab ID: 92258453014** Collected: 07/09/15 16:08 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/18/15 06:10	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/18/15 06:10	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/18/15 06:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/18/15 06:10	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/18/15 06:10	75-25-2	
Bromomethane	**3.4**	ug/L	2.0	0.29	1		07/18/15 06:10	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/18/15 06:10	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/18/15 06:10	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/18/15 06:10	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/18/15 06:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/18/15 06:10	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/18/15 06:10	75-00-3	
Chloroform	**0.75J**	ug/L	1.0	0.14	1		07/18/15 06:10	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/18/15 06:10	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/18/15 06:10	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/18/15 06:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/18/15 06:10	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/18/15 06:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/18/15 06:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/18/15 06:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/18/15 06:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/18/15 06:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/18/15 06:10	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/18/15 06:10	75-71-8	
1,1-Dichloroethane	**0.63J**	ug/L	1.0	0.32	1		07/18/15 06:10	75-34-3	
1,2-Dichloroethane	**0.16J**	ug/L	1.0	0.12	1		07/18/15 06:10	107-06-2	B
1,1-Dichloroethene	**21.2**	ug/L	1.0	0.56	1		07/18/15 06:10	75-35-4	
cis-1,2-Dichloroethene	**75.9**	ug/L	1.0	0.19	1		07/18/15 06:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/18/15 06:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/18/15 06:10	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/18/15 06:10	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/18/15 06:10	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/18/15 06:10	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/18/15 06:10	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/18/15 06:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/18/15 06:10	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/18/15 06:10	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/18/15 06:10	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/18/15 06:10	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/18/15 06:10	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/18/15 06:10	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/18/15 06:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/18/15 06:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/18/15 06:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/18/15 06:10	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/18/15 06:10	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: SEEP H **Lab ID: 92258453014** Collected: 07/09/15 16:08 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/18/15 06:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/18/15 06:10	120-82-1	
1,1,1-Trichloroethane	**1.4**	ug/L	1.0	0.48	1		07/18/15 06:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/18/15 06:10	79-00-5	
Trichloroethene	**157**	ug/L	1.0	0.47	1		07/18/15 06:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/18/15 06:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/18/15 06:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/18/15 06:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/18/15 06:10	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/18/15 06:10	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/18/15 06:10	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/18/15 06:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	112	%	70-130		1		07/18/15 06:10	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-130		1		07/18/15 06:10	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		07/18/15 06:10	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MANSON BRANCH #2 **Lab ID: 92258453015** Collected: 07/09/15 15:58 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/17/15 01:47	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/17/15 01:47	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/17/15 01:47	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/17/15 01:47	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/17/15 01:47	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/17/15 01:47	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/17/15 01:47	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/17/15 01:47	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/17/15 01:47	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/17/15 01:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/17/15 01:47	108-90-7	
Chloroethane	**0.55J**	ug/L	1.0	0.54	1		07/17/15 01:47	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/17/15 01:47	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/17/15 01:47	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/17/15 01:47	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/17/15 01:47	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/17/15 01:47	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/17/15 01:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/17/15 01:47	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/17/15 01:47	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/17/15 01:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/17/15 01:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 01:47	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/17/15 01:47	75-71-8	
1,1-Dichloroethane	**2.2**	ug/L	1.0	0.32	1		07/17/15 01:47	75-34-3	
1,2-Dichloroethane	**0.55J**	ug/L	1.0	0.12	1		07/17/15 01:47	107-06-2	B
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		07/17/15 01:47	75-35-4	
cis-1,2-Dichloroethene	**3.3**	ug/L	1.0	0.19	1		07/17/15 01:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/17/15 01:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/17/15 01:47	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/17/15 01:47	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/17/15 01:47	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/17/15 01:47	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/17/15 01:47	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/17/15 01:47	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/17/15 01:47	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/17/15 01:47	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/17/15 01:47	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/17/15 01:47	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/17/15 01:47	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/17/15 01:47	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/17/15 01:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/17/15 01:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/17/15 01:47	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/17/15 01:47	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/17/15 01:47	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MANSON BRANCH #2 **Lab ID: 92258453015** Collected: 07/09/15 15:58 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 01:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/17/15 01:47	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/17/15 01:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/17/15 01:47	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/17/15 01:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/17/15 01:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/17/15 01:47	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/17/15 01:47	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/17/15 01:47	108-67-8	
Vinyl chloride	**12.4**	ug/L	1.0	0.62	1		07/17/15 01:47	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/17/15 01:47	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/17/15 01:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		07/17/15 01:47	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		07/17/15 01:47	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/17/15 01:47	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: SEEP #2 **Lab ID: 92258453016** Collected: 07/09/15 16:40 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/17/15 02:04	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:04	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/17/15 02:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/17/15 02:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/17/15 02:04	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/17/15 02:04	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/17/15 02:04	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/17/15 02:04	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/17/15 02:04	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/17/15 02:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/17/15 02:04	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/17/15 02:04	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/17/15 02:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/17/15 02:04	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/17/15 02:04	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/17/15 02:04	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/17/15 02:04	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/17/15 02:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/17/15 02:04	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/17/15 02:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/17/15 02:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 02:04	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/17/15 02:04	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/17/15 02:04	75-34-3	
1,2-Dichloroethane	**0.15J**	ug/L	1.0	0.12	1		07/17/15 02:04	107-06-2	B
1,1-Dichloroethene	**0.96J**	ug/L	1.0	0.56	1		07/17/15 02:04	75-35-4	
cis-1,2-Dichloroethene	**13.4**	ug/L	1.0	0.19	1		07/17/15 02:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/17/15 02:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/17/15 02:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/17/15 02:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/17/15 02:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/17/15 02:04	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/17/15 02:04	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/17/15 02:04	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/17/15 02:04	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/17/15 02:04	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/17/15 02:04	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/17/15 02:04	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/17/15 02:04	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/17/15 02:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/17/15 02:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/17/15 02:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/17/15 02:04	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/17/15 02:04	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: SEEP #2 **Lab ID: 92258453016** Collected: 07/09/15 16:40 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 02:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/17/15 02:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/17/15 02:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/17/15 02:04	79-00-5	
Trichloroethene	**1.0**	ug/L	1.0	0.47	1		07/17/15 02:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/17/15 02:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/17/15 02:04	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/17/15 02:04	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/17/15 02:04	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/17/15 02:04	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/17/15 02:04	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/17/15 02:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		07/17/15 02:04	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		07/17/15 02:04	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/17/15 02:04	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MB #3 **Lab ID: 92258453017** Collected: 07/10/15 09:45 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/17/15 02:21	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:21	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/17/15 02:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/17/15 02:21	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/17/15 02:21	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/17/15 02:21	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/17/15 02:21	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/17/15 02:21	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/17/15 02:21	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/17/15 02:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/17/15 02:21	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/17/15 02:21	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/17/15 02:21	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/17/15 02:21	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/17/15 02:21	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/17/15 02:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/17/15 02:21	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/17/15 02:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/17/15 02:21	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/17/15 02:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/17/15 02:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 02:21	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/17/15 02:21	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/17/15 02:21	75-34-3	
1,2-Dichloroethane	**0.15J**	ug/L	1.0	0.12	1		07/17/15 02:21	107-06-2	B
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		07/17/15 02:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		07/17/15 02:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/17/15 02:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/17/15 02:21	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/17/15 02:21	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/17/15 02:21	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/17/15 02:21	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/17/15 02:21	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/17/15 02:21	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/17/15 02:21	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/17/15 02:21	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/17/15 02:21	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/17/15 02:21	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/17/15 02:21	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/17/15 02:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/17/15 02:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/17/15 02:21	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/17/15 02:21	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/17/15 02:21	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MB #3 **Lab ID: 92258453017** Collected: 07/10/15 09:45 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 02:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/17/15 02:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/17/15 02:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/17/15 02:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/17/15 02:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/17/15 02:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/17/15 02:21	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/17/15 02:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/17/15 02:21	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/17/15 02:21	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/17/15 02:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/17/15 02:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		07/17/15 02:21	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		07/17/15 02:21	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/17/15 02:21	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MB #5 **Lab ID: 92258453018** Collected: 07/10/15 10:20 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/17/15 02:38	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:38	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/17/15 02:38	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/17/15 02:38	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/17/15 02:38	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/17/15 02:38	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/17/15 02:38	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/17/15 02:38	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/17/15 02:38	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/17/15 02:38	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/17/15 02:38	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/17/15 02:38	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/17/15 02:38	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/17/15 02:38	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/17/15 02:38	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/17/15 02:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/17/15 02:38	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/17/15 02:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/17/15 02:38	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/17/15 02:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/17/15 02:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 02:38	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/17/15 02:38	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/17/15 02:38	75-34-3	
1,2-Dichloroethane	**0.15J**	ug/L	1.0	0.12	1		07/17/15 02:38	107-06-2	B
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		07/17/15 02:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		07/17/15 02:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/17/15 02:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/17/15 02:38	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/17/15 02:38	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/17/15 02:38	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/17/15 02:38	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/17/15 02:38	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/17/15 02:38	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/17/15 02:38	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/17/15 02:38	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/17/15 02:38	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/17/15 02:38	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/17/15 02:38	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/17/15 02:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/17/15 02:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/17/15 02:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/17/15 02:38	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/17/15 02:38	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MB #5 **Lab ID: 92258453018** Collected: 07/10/15 10:20 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 02:38	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/17/15 02:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/17/15 02:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/17/15 02:38	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/17/15 02:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/17/15 02:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/17/15 02:38	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/17/15 02:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/17/15 02:38	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/17/15 02:38	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/17/15 02:38	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/17/15 02:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		07/17/15 02:38	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		07/17/15 02:38	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		07/17/15 02:38	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MB #15 **Lab ID: 92258453019** Collected: 07/10/15 10:05 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/17/15 02:55	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:55	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/17/15 02:55	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/17/15 02:55	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/17/15 02:55	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/17/15 02:55	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/17/15 02:55	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/17/15 02:55	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/17/15 02:55	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/17/15 02:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/17/15 02:55	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/17/15 02:55	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/17/15 02:55	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/17/15 02:55	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/17/15 02:55	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/17/15 02:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/17/15 02:55	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/17/15 02:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/17/15 02:55	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/17/15 02:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/17/15 02:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 02:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/17/15 02:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/17/15 02:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/17/15 02:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		07/17/15 02:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		07/17/15 02:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/17/15 02:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/17/15 02:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/17/15 02:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/17/15 02:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/17/15 02:55	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/17/15 02:55	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/17/15 02:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/17/15 02:55	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/17/15 02:55	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/17/15 02:55	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/17/15 02:55	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/17/15 02:55	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/17/15 02:55	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/17/15 02:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/17/15 02:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/17/15 02:55	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/17/15 02:55	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/17/15 02:55	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MB #15 **Lab ID: 92258453019** Collected: 07/10/15 10:05 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 02:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/17/15 02:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/17/15 02:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/17/15 02:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/17/15 02:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/17/15 02:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/17/15 02:55	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/17/15 02:55	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/17/15 02:55	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/17/15 02:55	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/17/15 02:55	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/17/15 02:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		07/17/15 02:55	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		07/17/15 02:55	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		07/17/15 02:55	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MB #16 **Lab ID: 92258453020** Collected: 07/10/15 10:40 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/17/15 03:11	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/17/15 03:11	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/17/15 03:11	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/17/15 03:11	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/17/15 03:11	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/17/15 03:11	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/17/15 03:11	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/17/15 03:11	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/17/15 03:11	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/17/15 03:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/17/15 03:11	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/17/15 03:11	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/17/15 03:11	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/17/15 03:11	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/17/15 03:11	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/17/15 03:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/17/15 03:11	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/17/15 03:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/17/15 03:11	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/17/15 03:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/17/15 03:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/17/15 03:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 03:11	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/17/15 03:11	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/17/15 03:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/17/15 03:11	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		07/17/15 03:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		07/17/15 03:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/17/15 03:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/17/15 03:11	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/17/15 03:11	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/17/15 03:11	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/17/15 03:11	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/17/15 03:11	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/17/15 03:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/17/15 03:11	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/17/15 03:11	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/17/15 03:11	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		07/17/15 03:11	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		07/17/15 03:11	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/17/15 03:11	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/17/15 03:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/17/15 03:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/17/15 03:11	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/17/15 03:11	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/17/15 03:11	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: MB #16 **Lab ID: 92258453020** Collected: 07/10/15 10:40 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/17/15 03:11	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/17/15 03:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/17/15 03:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/17/15 03:11	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/17/15 03:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/17/15 03:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/17/15 03:11	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/17/15 03:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/17/15 03:11	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/17/15 03:11	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/17/15 03:11	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/17/15 03:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		07/17/15 03:11	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		07/17/15 03:11	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/17/15 03:11	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: TB-1 **Lab ID: 92258453021** Collected: 07/10/15 00:00 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		07/16/15 06:40	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		07/16/15 06:40	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		07/16/15 06:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		07/16/15 06:40	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		07/16/15 06:40	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		07/16/15 06:40	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		07/16/15 06:40	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		07/16/15 06:40	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		07/16/15 06:40	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		07/16/15 06:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		07/16/15 06:40	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		07/16/15 06:40	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		07/16/15 06:40	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		07/16/15 06:40	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		07/16/15 06:40	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		07/16/15 06:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		07/16/15 06:40	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		07/16/15 06:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		07/16/15 06:40	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		07/16/15 06:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		07/16/15 06:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		07/16/15 06:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 06:40	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		07/16/15 06:40	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		07/16/15 06:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		07/16/15 06:40	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		07/16/15 06:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		07/16/15 06:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		07/16/15 06:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		07/16/15 06:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		07/16/15 06:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		07/16/15 06:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		07/16/15 06:40	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		07/16/15 06:40	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/16/15 06:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		07/16/15 06:40	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		07/16/15 06:40	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		07/16/15 06:40	99-87-6	
Methylene Chloride	**1.1J**	ug/L	2.0	0.97	1		07/16/15 06:40	75-09-2	C9
Naphthalene	**2.7**	ug/L	1.0	0.24	1		07/16/15 06:40	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		07/16/15 06:40	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		07/16/15 06:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		07/16/15 06:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		07/16/15 06:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		07/16/15 06:40	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		07/16/15 06:40	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: TB-1 **Lab ID: 92258453021** Collected: 07/10/15 00:00 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		07/16/15 06:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		07/16/15 06:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		07/16/15 06:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		07/16/15 06:40	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		07/16/15 06:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		07/16/15 06:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		07/16/15 06:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		07/16/15 06:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		07/16/15 06:40	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		07/16/15 06:40	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		07/16/15 06:40	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		07/16/15 06:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		1		07/16/15 06:40	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		07/16/15 06:40	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		07/16/15 06:40	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: TK PURGE WATER **Lab ID: 92258453022** Collected: 07/10/15 08:50 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	ND	ug/L	10.0	5.0	1	07/20/15 18:45	07/22/15 03:08	7440-38-2	
Barium	**27.0**	ug/L	5.0	2.5	1	07/20/15 18:45	07/22/15 03:08	7440-39-3	
Cadmium	ND	ug/L	1.0	0.50	1	07/20/15 18:45	07/22/15 03:08	7440-43-9	
Chromium	**10.0**	ug/L	5.0	2.5	1	07/20/15 18:45	07/22/15 03:08	7440-47-3	
Lead	**33.0**	ug/L	5.0	2.5	1	07/20/15 18:45	07/22/15 03:08	7439-92-1	
Selenium	ND	ug/L	10.0	5.0	1	07/20/15 18:45	07/22/15 03:08	7782-49-2	
Silver	ND	ug/L	5.0	2.5	1	07/20/15 18:45	07/22/15 03:08	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	07/21/15 12:10	07/21/15 15:28	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	**1.0J**	ug/L	2.0	0.50	2		07/18/15 05:53	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		07/18/15 05:53	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		07/18/15 05:53	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		07/18/15 05:53	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		07/18/15 05:53	75-25-2	
Bromomethane	**6.6**	ug/L	4.0	0.58	2		07/18/15 05:53	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		07/18/15 05:53	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		07/18/15 05:53	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		07/18/15 05:53	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		07/18/15 05:53	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		07/18/15 05:53	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		07/18/15 05:53	75-00-3	
Chloroform	ND	ug/L	2.0	0.28	2		07/18/15 05:53	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		07/18/15 05:53	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		07/18/15 05:53	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		07/18/15 05:53	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	4.0	2		07/18/15 05:53	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	0.42	2		07/18/15 05:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		07/18/15 05:53	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		07/18/15 05:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		07/18/15 05:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		07/18/15 05:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		07/18/15 05:53	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		07/18/15 05:53	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		07/18/15 05:53	75-34-3	
1,2-Dichloroethane	**0.39J**	ug/L	2.0	0.24	2		07/18/15 05:53	107-06-2	B
1,1-Dichloroethene	**2.6**	ug/L	2.0	1.1	2		07/18/15 05:53	75-35-4	
cis-1,2-Dichloroethene	**106**	ug/L	2.0	0.38	2		07/18/15 05:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		07/18/15 05:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		07/18/15 05:53	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		07/18/15 05:53	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		07/18/15 05:53	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		07/18/15 05:53	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	300	157	2		07/18/15 05:53	123-91-1	L3

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Sample: TK PURGE WATER **Lab ID: 92258453022** Collected: 07/10/15 08:50 Received: 07/14/15 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/L	2.0	0.60	2		07/18/15 05:53	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.4	2		07/18/15 05:53	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		07/18/15 05:53	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		07/18/15 05:53	99-87-6	
Methylene Chloride	**2.4J**	ug/L	4.0	1.9	2		07/18/15 05:53	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		07/18/15 05:53	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		07/18/15 05:53	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		07/18/15 05:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	0.66	2		07/18/15 05:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		07/18/15 05:53	79-34-5	
Tetrachloroethene	ND	ug/L	2.0	0.92	2		07/18/15 05:53	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		07/18/15 05:53	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		07/18/15 05:53	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		07/18/15 05:53	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	2.0	0.96	2		07/18/15 05:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		07/18/15 05:53	79-00-5	
Trichloroethene	**199**	ug/L	2.0	0.94	2		07/18/15 05:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	0.40	2		07/18/15 05:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		07/18/15 05:53	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		07/18/15 05:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		07/18/15 05:53	108-67-8	
Vinyl chloride	**8.1**	ug/L	2.0	1.2	2		07/18/15 05:53	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		07/18/15 05:53	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		07/18/15 05:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	111	%	70-130		2		07/18/15 05:53	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		2		07/18/15 05:53	17060-07-0	
Toluene-d8 (S)	101	%	70-130		2		07/18/15 05:53	2037-26-5	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

QC Batch: MERP/8097
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Associated Lab Samples: 92258453022

METHOD BLANK: 1514214 Matrix: Water
Associated Lab Samples: 92258453022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	07/21/15 15:14	

LABORATORY CONTROL SAMPLE: 1514215

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.6	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1514216 1514217

Parameter	Units	92258316005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.6	2.6	102	103	75-125	0	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

QC Batch: MPRP/19034
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 92258453022

METHOD BLANK: 1513622 Matrix: Water
Associated Lab Samples: 92258453022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	10.0	07/22/15 03:02	
Barium	ug/L	ND	5.0	07/22/15 03:02	
Cadmium	ug/L	ND	1.0	07/22/15 03:02	
Chromium	ug/L	ND	5.0	07/22/15 03:02	
Lead	ug/L	ND	5.0	07/22/15 03:02	
Selenium	ug/L	ND	10.0	07/22/15 03:02	
Silver	ug/L	ND	5.0	07/22/15 03:02	

LABORATORY CONTROL SAMPLE: 1513623

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	500	441	88	80-120	
Barium	ug/L	500	450	90	80-120	
Cadmium	ug/L	500	456	91	80-120	
Chromium	ug/L	500	442	88	80-120	
Lead	ug/L	500	451	90	80-120	
Selenium	ug/L	500	448	90	80-120	
Silver	ug/L	250	225	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1513624 1513625

Parameter	Units	92258453022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	500	500	439	430	88	86	75-125	2	20	
Barium	ug/L	27.0	500	500	468	461	88	87	75-125	2	20	
Cadmium	ug/L	ND	500	500	452	444	90	89	75-125	2	20	
Chromium	ug/L	10.0	500	500	442	436	86	85	75-125	1	20	
Lead	ug/L	33.0	500	500	467	461	87	86	75-125	1	20	
Selenium	ug/L	ND	500	500	438	427	88	85	75-125	3	20	
Silver	ug/L	ND	250	250	223	220	89	88	75-125	1	20	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

QC Batch: MSV/32572 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92258453001, 92258453002, 92258453003, 92258453007, 92258453009, 92258453010, 92258453012, 92258453013, 92258453021

METHOD BLANK: 1509093 Matrix: Water
Associated Lab Samples: 92258453001, 92258453002, 92258453003, 92258453007, 92258453009, 92258453010, 92258453012, 92258453013, 92258453021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	07/16/15 03:16	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/16/15 03:16	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/16/15 03:16	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/16/15 03:16	
1,1-Dichloroethane	ug/L	ND	1.0	07/16/15 03:16	
1,1-Dichloroethene	ug/L	ND	1.0	07/16/15 03:16	
1,1-Dichloropropene	ug/L	ND	1.0	07/16/15 03:16	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	07/16/15 03:16	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/16/15 03:16	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	07/16/15 03:16	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	07/16/15 03:16	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	07/16/15 03:16	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/16/15 03:16	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/16/15 03:16	
1,2-Dichloroethane	ug/L	ND	1.0	07/16/15 03:16	
1,2-Dichloropropane	ug/L	ND	1.0	07/16/15 03:16	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	07/16/15 03:16	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/16/15 03:16	
1,3-Dichloropropane	ug/L	ND	1.0	07/16/15 03:16	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/16/15 03:16	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	07/16/15 03:16	
2,2-Dichloropropane	ug/L	ND	1.0	07/16/15 03:16	
2-Chlorotoluene	ug/L	ND	1.0	07/16/15 03:16	
4-Chlorotoluene	ug/L	ND	1.0	07/16/15 03:16	
Benzene	ug/L	ND	1.0	07/16/15 03:16	
Bromobenzene	ug/L	ND	1.0	07/16/15 03:16	
Bromochloromethane	ug/L	ND	1.0	07/16/15 03:16	
Bromodichloromethane	ug/L	ND	1.0	07/16/15 03:16	
Bromoform	ug/L	ND	1.0	07/16/15 03:16	
Bromomethane	ug/L	ND	2.0	07/16/15 03:16	
Carbon tetrachloride	ug/L	ND	1.0	07/16/15 03:16	
Chlorobenzene	ug/L	ND	1.0	07/16/15 03:16	
Chloroethane	ug/L	ND	1.0	07/16/15 03:16	
Chloroform	ug/L	ND	1.0	07/16/15 03:16	
Chloromethane	ug/L	ND	1.0	07/16/15 03:16	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/16/15 03:16	
Dibromochloromethane	ug/L	ND	1.0	07/16/15 03:16	
Dibromomethane	ug/L	ND	1.0	07/16/15 03:16	
Dichlorodifluoromethane	ug/L	ND	1.0	07/16/15 03:16	
Ethylbenzene	ug/L	ND	1.0	07/16/15 03:16	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

METHOD BLANK: 1509093 Matrix: Water

Associated Lab Samples: 92258453001, 92258453002, 92258453003, 92258453007, 92258453009, 92258453010, 92258453012, 92258453013, 92258453021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	ND	1.0	07/16/15 03:16	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	07/16/15 03:16	
m&p-Xylene	ug/L	ND	2.0	07/16/15 03:16	
Methylene Chloride	ug/L	ND	2.0	07/16/15 03:16	
n-Butylbenzene	ug/L	ND	1.0	07/16/15 03:16	
n-Propylbenzene	ug/L	ND	1.0	07/16/15 03:16	
Naphthalene	ug/L	ND	1.0	07/16/15 03:16	
o-Xylene	ug/L	ND	1.0	07/16/15 03:16	
p-Isopropyltoluene	ug/L	ND	1.0	07/16/15 03:16	
sec-Butylbenzene	ug/L	ND	1.0	07/16/15 03:16	
Styrene	ug/L	ND	1.0	07/16/15 03:16	
tert-Butylbenzene	ug/L	ND	1.0	07/16/15 03:16	
Tetrachloroethene	ug/L	ND	1.0	07/16/15 03:16	
Toluene	ug/L	ND	1.0	07/16/15 03:16	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/16/15 03:16	
Trichloroethene	ug/L	ND	1.0	07/16/15 03:16	
Trichlorofluoromethane	ug/L	ND	1.0	07/16/15 03:16	
Vinyl chloride	ug/L	ND	1.0	07/16/15 03:16	
1,2-Dichloroethane-d4 (S)	%	104	70-130	07/16/15 03:16	
4-Bromofluorobenzene (S)	%	107	70-130	07/16/15 03:16	
Toluene-d8 (S)	%	104	70-130	07/16/15 03:16	

LABORATORY CONTROL SAMPLE: 1509094

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	41.7	83	70-130	
1,1,1-Trichloroethane	ug/L	50	49.0	98	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	43.0	86	70-130	
1,1,2-Trichloroethane	ug/L	50	44.3	89	70-130	
1,1-Dichloroethane	ug/L	50	48.8	98	70-130	
1,1-Dichloroethene	ug/L	50	53.7	107	70-132	
1,1-Dichloropropene	ug/L	50	53.9	108	70-130	
1,2,3-Trichlorobenzene	ug/L	50	39.0	78	70-135	
1,2,3-Trichloropropane	ug/L	50	39.7	79	70-130	
1,2,4-Trichlorobenzene	ug/L	50	38.9	78	70-134	
1,2,4-Trimethylbenzene	ug/L	50	42.1	84	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	40.7	81	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	43.8	88	70-130	
1,2-Dichlorobenzene	ug/L	50	43.3	87	70-130	
1,2-Dichloroethane	ug/L	50	43.2	86	70-130	
1,2-Dichloropropane	ug/L	50	46.6	93	70-130	
1,3,5-Trimethylbenzene	ug/L	50	43.8	88	70-130	
1,3-Dichlorobenzene	ug/L	50	43.3	87	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

LABORATORY CONTROL SAMPLE: 1509094

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichloropropane	ug/L	50	44.1	88	70-130	
1,4-Dichlorobenzene	ug/L	50	42.4	85	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1420	142	71-125	L0
2,2-Dichloropropane	ug/L	50	46.4	93	58-145	
2-Chlorotoluene	ug/L	50	44.4	89	70-130	
4-Chlorotoluene	ug/L	50	44.3	89	70-130	
Benzene	ug/L	50	48.3	97	70-130	
Bromobenzene	ug/L	50	43.3	87	70-130	
Bromochloromethane	ug/L	50	49.2	98	70-130	
Bromodichloromethane	ug/L	50	43.9	88	70-130	
Bromoform	ug/L	50	38.8	78	70-130	
Bromomethane	ug/L	50	43.7	87	54-130	
Carbon tetrachloride	ug/L	50	45.2	90	70-132	
Chlorobenzene	ug/L	50	43.4	87	70-130	
Chloroethane	ug/L	50	45.2	90	64-134	
Chloroform	ug/L	50	47.7	95	70-130	
Chloromethane	ug/L	50	47.2	94	64-130	
cis-1,2-Dichloroethene	ug/L	50	49.2	98	70-131	
Dibromochloromethane	ug/L	50	42.1	84	70-130	
Dibromomethane	ug/L	50	43.3	87	70-131	
Dichlorodifluoromethane	ug/L	50	43.2	86	56-130	
Ethylbenzene	ug/L	50	44.1	88	70-130	
Hexachloro-1,3-butadiene	ug/L	50	39.6	79	70-130	
Isopropylbenzene (Cumene)	ug/L	50	44.1	88	70-130	
m&p-Xylene	ug/L	100	88.3	88	70-130	
Methylene Chloride	ug/L	50	53.1	106	63-130	
n-Butylbenzene	ug/L	50	41.9	84	70-130	
n-Propylbenzene	ug/L	50	45.0	90	70-130	
Naphthalene	ug/L	50	39.5	79	70-138	
o-Xylene	ug/L	50	43.9	88	70-130	
p-Isopropyltoluene	ug/L	50	43.2	86	70-130	
sec-Butylbenzene	ug/L	50	45.0	90	70-130	
Styrene	ug/L	50	44.9	90	70-130	
tert-Butylbenzene	ug/L	50	37.5	75	70-130	
Tetrachloroethene	ug/L	50	42.5	85	70-130	
Toluene	ug/L	50	46.0	92	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.3	97	70-130	
Trichloroethene	ug/L	50	44.9	90	70-130	
Trichlorofluoromethane	ug/L	50	43.9	88	62-133	
Vinyl chloride	ug/L	50	56.1	112	50-150	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

MATRIX SPIKE SAMPLE: 1509095

Parameter	Units	92258453001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	17.3	86	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	21.6	108	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	17.7	89	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	19.2	96	70-130	
1,1-Dichloroethane	ug/L	ND	20	23.0	115	70-130	
1,1-Dichloroethene	ug/L	ND	20	23.8	118	70-166	
1,1-Dichloropropene	ug/L	ND	20	22.4	112	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	15.1	75	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	17.3	86	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	14.8	74	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	18.0	90	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	15.1	76	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	18.1	91	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	18.0	90	70-130	
1,2-Dichloroethane	ug/L	ND	20	19.4	97	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.2	101	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	18.5	93	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	18.3	91	70-130	
1,3-Dichloropropane	ug/L	ND	20	18.0	90	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	18.2	91	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	508	127	70-130	
2,2-Dichloropropane	ug/L	ND	20	21.0	105	70-130	
2-Chlorotoluene	ug/L	ND	20	18.8	94	70-130	
4-Chlorotoluene	ug/L	ND	20	19.0	95	70-130	
Benzene	ug/L	ND	20	21.8	109	70-148	
Bromobenzene	ug/L	ND	20	18.2	91	70-130	
Bromochloromethane	ug/L	ND	20	20.6	103	70-130	
Bromodichloromethane	ug/L	ND	20	19.9	99	70-130	
Bromoform	ug/L	ND	20	15.0	75	70-130	
Bromomethane	ug/L	ND	20	16.3	82	70-130	
Carbon tetrachloride	ug/L	ND	20	21.4	107	70-130	
Chlorobenzene	ug/L	ND	20	19.3	96	70-146	
Chloroethane	ug/L	ND	20	21.8	109	70-130	
Chloroform	ug/L	4.0	20	23.6	98	70-130	
Chloromethane	ug/L	ND	20	19.9	100	70-130	
cis-1,2-Dichloroethene	ug/L	0.20J	20	20.2	100	70-130	
Dibromochloromethane	ug/L	ND	20	17.3	87	70-130	
Dibromomethane	ug/L	ND	20	19.1	96	70-130	
Dichlorodifluoromethane	ug/L	ND	20	20.7	104	70-130	
Ethylbenzene	ug/L	ND	20	19.6	98	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	20.0	100	70-130	
Isopropylbenzene (Cumene)	ug/L	ND	20	19.1	95	70-130	
m&p-Xylene	ug/L	ND	40	39.1	98	70-130	
Methylene Chloride	ug/L	ND	20	23.4	117	70-130	
n-Butylbenzene	ug/L	ND	20	17.5	87	70-130	
n-Propylbenzene	ug/L	ND	20	19.6	98	70-130	
Naphthalene	ug/L	ND	20	16.8	84	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

MATRIX SPIKE SAMPLE: 1509095

Parameter	Units	92258453001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	18.1	91	70-130	
p-Isopropyltoluene	ug/L	ND	20	18.3	91	70-130	
sec-Butylbenzene	ug/L	ND	20	19.2	96	70-130	
Styrene	ug/L	ND	20	18.2	91	70-130	
tert-Butylbenzene	ug/L	ND	20	15.9	79	70-130	
Tetrachloroethene	ug/L	ND	20	19.2	96	70-130	
Toluene	ug/L	ND	20	20.9	105	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.2	116	70-130	
Trichloroethene	ug/L	ND	20	21.5	106	69-151	
Trichlorofluoromethane	ug/L	ND	20	21.9	109	70-130	
Vinyl chloride	ug/L	ND	20	22.3	111	70-130	
1,2-Dichloroethane-d4 (S)	%				104	70-130	
4-Bromofluorobenzene (S)	%				103	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1509096

Parameter	Units	92258453002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	0.83J	0.81J		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

SAMPLE DUPLICATE: 1509096

Parameter	Units	92258453002 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	1.4	1.4	2	30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	1.6	1.7	5	30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	107	110	3		
4-Bromofluorobenzene (S)	%	112	112	0		
Toluene-d8 (S)	%	103	103	0		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

QC Batch: MSV/32607 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92258453015, 92258453016, 92258453017, 92258453018, 92258453019, 92258453020

METHOD BLANK: 1511365 Matrix: Water
Associated Lab Samples: 92258453015, 92258453016, 92258453017, 92258453018, 92258453019, 92258453020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	07/17/15 00:23	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/17/15 00:23	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/17/15 00:23	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/17/15 00:23	
1,1-Dichloroethane	ug/L	ND	1.0	07/17/15 00:23	
1,1-Dichloroethene	ug/L	ND	1.0	07/17/15 00:23	
1,1-Dichloropropene	ug/L	ND	1.0	07/17/15 00:23	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	07/17/15 00:23	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/17/15 00:23	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	07/17/15 00:23	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	07/17/15 00:23	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	07/17/15 00:23	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/17/15 00:23	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/17/15 00:23	
1,2-Dichloroethane	ug/L	ND	1.0	07/17/15 00:23	
1,2-Dichloropropane	ug/L	ND	1.0	07/17/15 00:23	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	07/17/15 00:23	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/17/15 00:23	
1,3-Dichloropropane	ug/L	ND	1.0	07/17/15 00:23	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/17/15 00:23	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	07/17/15 00:23	
2,2-Dichloropropane	ug/L	ND	1.0	07/17/15 00:23	
2-Chlorotoluene	ug/L	ND	1.0	07/17/15 00:23	
4-Chlorotoluene	ug/L	ND	1.0	07/17/15 00:23	
Benzene	ug/L	ND	1.0	07/17/15 00:23	
Bromobenzene	ug/L	ND	1.0	07/17/15 00:23	
Bromochloromethane	ug/L	ND	1.0	07/17/15 00:23	
Bromodichloromethane	ug/L	ND	1.0	07/17/15 00:23	
Bromoform	ug/L	ND	1.0	07/17/15 00:23	
Bromomethane	ug/L	ND	2.0	07/17/15 00:23	
Carbon tetrachloride	ug/L	ND	1.0	07/17/15 00:23	
Chlorobenzene	ug/L	ND	1.0	07/17/15 00:23	
Chloroethane	ug/L	ND	1.0	07/17/15 00:23	
Chloroform	ug/L	ND	1.0	07/17/15 00:23	
Chloromethane	ug/L	ND	1.0	07/17/15 00:23	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/17/15 00:23	
Dibromochloromethane	ug/L	ND	1.0	07/17/15 00:23	
Dibromomethane	ug/L	ND	1.0	07/17/15 00:23	
Dichlorodifluoromethane	ug/L	ND	1.0	07/17/15 00:23	
Ethylbenzene	ug/L	ND	1.0	07/17/15 00:23	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	07/17/15 00:23	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

METHOD BLANK: 1511365 Matrix: Water
Associated Lab Samples: 92258453015, 92258453016, 92258453017, 92258453018, 92258453019, 92258453020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	1.0	07/17/15 00:23	
m&p-Xylene	ug/L	ND	2.0	07/17/15 00:23	
Methylene Chloride	ug/L	ND	2.0	07/17/15 00:23	
n-Butylbenzene	ug/L	ND	1.0	07/17/15 00:23	
n-Propylbenzene	ug/L	ND	1.0	07/17/15 00:23	
Naphthalene	ug/L	ND	1.0	07/17/15 00:23	
o-Xylene	ug/L	ND	1.0	07/17/15 00:23	
p-Isopropyltoluene	ug/L	ND	1.0	07/17/15 00:23	
sec-Butylbenzene	ug/L	ND	1.0	07/17/15 00:23	
Styrene	ug/L	ND	1.0	07/17/15 00:23	
tert-Butylbenzene	ug/L	ND	1.0	07/17/15 00:23	
Tetrachloroethene	ug/L	ND	1.0	07/17/15 00:23	
Toluene	ug/L	ND	1.0	07/17/15 00:23	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/17/15 00:23	
Trichloroethene	ug/L	ND	1.0	07/17/15 00:23	
Trichlorofluoromethane	ug/L	ND	1.0	07/17/15 00:23	
Vinyl chloride	ug/L	ND	1.0	07/17/15 00:23	
1,2-Dichloroethane-d4 (S)	%	100	70-130	07/17/15 00:23	
4-Bromofluorobenzene (S)	%	105	70-130	07/17/15 00:23	
Toluene-d8 (S)	%	100	70-130	07/17/15 00:23	

LABORATORY CONTROL SAMPLE: 1511366

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.1	100	70-130	
1,1,1-Trichloroethane	ug/L	50	52.5	105	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	53.3	107	70-130	
1,1,2-Trichloroethane	ug/L	50	46.3	93	70-130	
1,1-Dichloroethane	ug/L	50	50.2	100	70-130	
1,1-Dichloroethene	ug/L	50	54.8	110	70-132	
1,1-Dichloropropene	ug/L	50	53.4	107	70-130	
1,2,3-Trichlorobenzene	ug/L	50	49.6	99	70-135	
1,2,3-Trichloropropane	ug/L	50	51.3	103	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.4	101	70-134	
1,2,4-Trimethylbenzene	ug/L	50	51.1	102	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	53.8	108	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.0	100	70-130	
1,2-Dichlorobenzene	ug/L	50	52.0	104	70-130	
1,2-Dichloroethane	ug/L	50	46.7	93	70-130	
1,2-Dichloropropane	ug/L	50	49.1	98	70-130	
1,3,5-Trimethylbenzene	ug/L	50	50.7	101	70-130	
1,3-Dichlorobenzene	ug/L	50	50.7	101	70-130	
1,3-Dichloropropane	ug/L	50	49.4	99	70-130	
1,4-Dichlorobenzene	ug/L	50	49.5	99	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

LABORATORY CONTROL SAMPLE: 1511366

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	2480	248	71-125	L0
2,2-Dichloropropane	ug/L	50	50.1	100	58-145	
2-Chlorotoluene	ug/L	50	50.6	101	70-130	
4-Chlorotoluene	ug/L	50	48.4	97	70-130	
Benzene	ug/L	50	51.2	102	70-130	
Bromobenzene	ug/L	50	47.7	95	70-130	
Bromochloromethane	ug/L	50	51.5	103	70-130	
Bromodichloromethane	ug/L	50	51.7	103	70-130	
Bromoform	ug/L	50	42.6	85	70-130	
Bromomethane	ug/L	50	47.8	96	54-130	
Carbon tetrachloride	ug/L	50	50.9	102	70-132	
Chlorobenzene	ug/L	50	50.3	101	70-130	
Chloroethane	ug/L	50	47.3	95	64-134	
Chloroform	ug/L	50	51.2	102	70-130	
Chloromethane	ug/L	50	53.3	107	64-130	
cis-1,2-Dichloroethene	ug/L	50	51.3	103	70-131	
Dibromochloromethane	ug/L	50	52.2	104	70-130	
Dibromomethane	ug/L	50	48.7	97	70-131	
Dichlorodifluoromethane	ug/L	50	53.7	107	56-130	
Ethylbenzene	ug/L	50	50.6	101	70-130	
Hexachloro-1,3-butadiene	ug/L	50	62.2	124	70-130	
Isopropylbenzene (Cumene)	ug/L	50	52.7	105	70-130	
m&p-Xylene	ug/L	100	102	102	70-130	
Methylene Chloride	ug/L	50	54.2	108	63-130	
n-Butylbenzene	ug/L	50	50.3	101	70-130	
n-Propylbenzene	ug/L	50	50.2	100	70-130	
Naphthalene	ug/L	50	52.2	104	70-138	
o-Xylene	ug/L	50	51.6	103	70-130	
p-Isopropyltoluene	ug/L	50	51.0	102	70-130	
sec-Butylbenzene	ug/L	50	51.3	103	70-130	
Styrene	ug/L	50	52.1	104	70-130	
tert-Butylbenzene	ug/L	50	42.3	85	70-130	
Tetrachloroethene	ug/L	50	47.3	95	70-130	
Toluene	ug/L	50	50.3	101	70-130	
trans-1,2-Dichloroethene	ug/L	50	51.3	103	70-130	
Trichloroethene	ug/L	50	47.9	96	70-130	
Trichlorofluoromethane	ug/L	50	46.5	93	62-133	
Vinyl chloride	ug/L	50	56.9	114	50-150	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			109	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

MATRIX SPIKE SAMPLE: 1511369

Parameter	Units	92258706001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	19.2	96	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	22.8	114	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.9	99	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	20.0	100	70-130	
1,1-Dichloroethane	ug/L	ND	20	22.4	112	70-130	
1,1-Dichloroethene	ug/L	ND	20	24.3	121	70-166	
1,1-Dichloropropene	ug/L	ND	20	23.8	119	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	18.4	92	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	20.5	103	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.4	92	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	19.5	97	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	17.4	87	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	19.8	99	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.2	101	70-130	
1,2-Dichloroethane	ug/L	ND	20	20.2	101	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.6	103	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	19.9	100	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	20.2	101	70-130	
1,3-Dichloropropane	ug/L	ND	20	19.9	99	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	19.7	99	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	960	240	70-130	M0
2,2-Dichloropropane	ug/L	ND	20	18.2	91	70-130	
2-Chlorotoluene	ug/L	ND	20	20.7	103	70-130	
4-Chlorotoluene	ug/L	ND	20	20.0	100	70-130	
Benzene	ug/L	ND	20	22.0	110	70-148	
Bromobenzene	ug/L	ND	20	19.0	95	70-130	
Bromochloromethane	ug/L	ND	20	22.8	114	70-130	
Bromodichloromethane	ug/L	ND	20	19.6	98	70-130	
Bromoform	ug/L	ND	20	15.6	78	70-130	
Bromomethane	ug/L	ND	20	11.0	55	70-130	M1
Carbon tetrachloride	ug/L	ND	20	21.4	107	70-130	
Chlorobenzene	ug/L	ND	20	20.4	102	70-146	
Chloroethane	ug/L	ND	20	22.0	110	70-130	
Chloroform	ug/L	2.5	20	24.3	109	70-130	
Chloromethane	ug/L	ND	20	19.5	98	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	22.3	112	70-130	
Dibromochloromethane	ug/L	ND	20	17.6	88	70-130	
Dibromomethane	ug/L	ND	20	20.6	103	70-130	
Dichlorodifluoromethane	ug/L	ND	20	18.7	94	70-130	
Ethylbenzene	ug/L	ND	20	20.3	102	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	22.6	113	70-130	
Isopropylbenzene (Cumene)	ug/L	ND	20	20.5	102	70-130	
m&p-Xylene	ug/L	ND	40	40.9	102	70-130	
Methylene Chloride	ug/L	ND	20	23.0	115	70-130	
n-Butylbenzene	ug/L	ND	20	18.7	93	70-130	
n-Propylbenzene	ug/L	ND	20	20.2	101	70-130	
Naphthalene	ug/L	ND	20	19.7	99	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

MATRIX SPIKE SAMPLE: 1511369

Parameter	Units	92258706001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	20.4	102	70-130	
p-Isopropyltoluene	ug/L	ND	20	19.5	98	70-130	
sec-Butylbenzene	ug/L	ND	20	20.3	101	70-130	
Styrene	ug/L	ND	20	19.6	98	70-130	
tert-Butylbenzene	ug/L	ND	20	16.8	84	70-130	
Tetrachloroethene	ug/L	ND	20	20.3	100	70-130	
Toluene	ug/L	ND	20	21.4	107	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.0	115	70-130	
Trichloroethene	ug/L	ND	20	21.7	108	69-151	
Trichlorofluoromethane	ug/L	ND	20	21.6	108	70-130	
Vinyl chloride	ug/L	ND	20	22.4	112	70-130	
1,2-Dichloroethane-d4 (S)	%				105	70-130	
4-Bromofluorobenzene (S)	%				106	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1511370

Parameter	Units	92258792001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

SAMPLE DUPLICATE: 1511370

Parameter	Units	92258792001 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	110	102	8		
4-Bromofluorobenzene (S)	%	106	108	2		
Toluene-d8 (S)	%	101	102	1		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

QC Batch: MSV/32608 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92258453005, 92258453006, 92258453008

METHOD BLANK: 1511376 Matrix: Water
Associated Lab Samples: 92258453005, 92258453006, 92258453008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	07/17/15 00:39	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/17/15 00:39	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/17/15 00:39	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/17/15 00:39	
1,1-Dichloroethane	ug/L	ND	1.0	07/17/15 00:39	
1,1-Dichloroethene	ug/L	ND	1.0	07/17/15 00:39	
1,1-Dichloropropene	ug/L	ND	1.0	07/17/15 00:39	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	07/17/15 00:39	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/17/15 00:39	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	07/17/15 00:39	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	07/17/15 00:39	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	07/17/15 00:39	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/17/15 00:39	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/17/15 00:39	
1,2-Dichloroethane	ug/L	ND	1.0	07/17/15 00:39	
1,2-Dichloropropane	ug/L	ND	1.0	07/17/15 00:39	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	07/17/15 00:39	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/17/15 00:39	
1,3-Dichloropropane	ug/L	ND	1.0	07/17/15 00:39	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/17/15 00:39	
2,2-Dichloropropane	ug/L	ND	1.0	07/17/15 00:39	
2-Chlorotoluene	ug/L	ND	1.0	07/17/15 00:39	
4-Chlorotoluene	ug/L	ND	1.0	07/17/15 00:39	
Benzene	ug/L	ND	1.0	07/17/15 00:39	
Bromobenzene	ug/L	ND	1.0	07/17/15 00:39	
Bromochloromethane	ug/L	ND	1.0	07/17/15 00:39	
Bromodichloromethane	ug/L	ND	1.0	07/17/15 00:39	
Bromoform	ug/L	ND	1.0	07/17/15 00:39	
Bromomethane	ug/L	ND	2.0	07/17/15 00:39	
Carbon tetrachloride	ug/L	ND	1.0	07/17/15 00:39	
Chlorobenzene	ug/L	ND	1.0	07/17/15 00:39	
Chloroethane	ug/L	ND	1.0	07/17/15 00:39	
Chloroform	ug/L	ND	1.0	07/17/15 00:39	
Chloromethane	ug/L	ND	1.0	07/17/15 00:39	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/17/15 00:39	
Dibromochloromethane	ug/L	ND	1.0	07/17/15 00:39	
Dibromomethane	ug/L	ND	1.0	07/17/15 00:39	
Dichlorodifluoromethane	ug/L	ND	1.0	07/17/15 00:39	
Ethylbenzene	ug/L	ND	1.0	07/17/15 00:39	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	07/17/15 00:39	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	07/17/15 00:39	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

METHOD BLANK: 1511376 Matrix: Water
Associated Lab Samples: 92258453005, 92258453006, 92258453008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	2.0	07/17/15 00:39	
Methylene Chloride	ug/L	ND	2.0	07/17/15 00:39	
n-Butylbenzene	ug/L	ND	1.0	07/17/15 00:39	
n-Propylbenzene	ug/L	ND	1.0	07/17/15 00:39	
Naphthalene	ug/L	ND	1.0	07/17/15 00:39	
o-Xylene	ug/L	ND	1.0	07/17/15 00:39	
p-Isopropyltoluene	ug/L	ND	1.0	07/17/15 00:39	
sec-Butylbenzene	ug/L	ND	1.0	07/17/15 00:39	
Styrene	ug/L	ND	1.0	07/17/15 00:39	
tert-Butylbenzene	ug/L	ND	1.0	07/17/15 00:39	
Tetrachloroethene	ug/L	ND	1.0	07/17/15 00:39	
Toluene	ug/L	ND	1.0	07/17/15 00:39	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/17/15 00:39	
Trichloroethene	ug/L	ND	1.0	07/17/15 00:39	
Trichlorofluoromethane	ug/L	ND	1.0	07/17/15 00:39	
Vinyl chloride	ug/L	ND	1.0	07/17/15 00:39	
1,2-Dichloroethane-d4 (S)	%	97	70-130	07/17/15 00:39	
4-Bromofluorobenzene (S)	%	106	70-130	07/17/15 00:39	
Toluene-d8 (S)	%	102	70-130	07/17/15 00:39	

LABORATORY CONTROL SAMPLE: 1511377

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.5	97	70-130	
1,1,1-Trichloroethane	ug/L	50	48.0	96	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.3	101	70-130	
1,1,2-Trichloroethane	ug/L	50	47.6	95	70-130	
1,1-Dichloroethane	ug/L	50	48.9	98	70-130	
1,1-Dichloroethene	ug/L	50	50.4	101	70-132	
1,1-Dichloropropene	ug/L	50	51.2	102	70-130	
1,2,3-Trichlorobenzene	ug/L	50	48.8	98	70-135	
1,2,3-Trichloropropane	ug/L	50	46.1	92	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.8	102	70-134	
1,2,4-Trimethylbenzene	ug/L	50	51.8	104	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	50.1	100	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.7	97	70-130	
1,2-Dichlorobenzene	ug/L	50	51.5	103	70-130	
1,2-Dichloroethane	ug/L	50	41.9	84	70-130	
1,2-Dichloropropane	ug/L	50	48.2	96	70-130	
1,3,5-Trimethylbenzene	ug/L	50	50.3	101	70-130	
1,3-Dichlorobenzene	ug/L	50	50.0	100	70-130	
1,3-Dichloropropane	ug/L	50	48.0	96	70-130	
1,4-Dichlorobenzene	ug/L	50	49.4	99	70-130	
2,2-Dichloropropane	ug/L	50	46.6	93	58-145	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

LABORATORY CONTROL SAMPLE: 1511377

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Chlorotoluene	ug/L	50	51.0	102	70-130	
4-Chlorotoluene	ug/L	50	49.0	98	70-130	
Benzene	ug/L	50	49.6	99	70-130	
Bromobenzene	ug/L	50	47.5	95	70-130	
Bromochloromethane	ug/L	50	48.7	97	70-130	
Bromodichloromethane	ug/L	50	50.3	101	70-130	
Bromoform	ug/L	50	41.2	82	70-130	
Bromomethane	ug/L	50	49.5	99	54-130	
Carbon tetrachloride	ug/L	50	50.3	101	70-132	
Chlorobenzene	ug/L	50	48.5	97	70-130	
Chloroethane	ug/L	50	44.8	90	64-134	
Chloroform	ug/L	50	50.1	100	70-130	
Chloromethane	ug/L	50	50.8	102	64-130	
cis-1,2-Dichloroethene	ug/L	50	48.2	96	70-131	
Dibromochloromethane	ug/L	50	50.6	101	70-130	
Dibromomethane	ug/L	50	47.6	95	70-131	
Dichlorodifluoromethane	ug/L	50	49.1	98	56-130	
Ethylbenzene	ug/L	50	48.8	98	70-130	
Hexachloro-1,3-butadiene	ug/L	50	62.0	124	70-130	
Isopropylbenzene (Cumene)	ug/L	50	49.9	100	70-130	
m&p-Xylene	ug/L	100	98.6	99	70-130	
Methylene Chloride	ug/L	50	51.1	102	63-130	
n-Butylbenzene	ug/L	50	49.7	99	70-130	
n-Propylbenzene	ug/L	50	50.5	101	70-130	
Naphthalene	ug/L	50	52.2	104	70-138	
o-Xylene	ug/L	50	49.5	99	70-130	
p-Isopropyltoluene	ug/L	50	50.2	100	70-130	
sec-Butylbenzene	ug/L	50	52.1	104	70-130	
Styrene	ug/L	50	49.9	100	70-130	
tert-Butylbenzene	ug/L	50	42.5	85	70-130	
Tetrachloroethene	ug/L	50	46.6	93	70-130	
Toluene	ug/L	50	49.4	99	70-130	
trans-1,2-Dichloroethene	ug/L	50	51.4	103	70-130	
Trichloroethene	ug/L	50	47.3	95	70-130	
Trichlorofluoromethane	ug/L	50	45.4	91	62-133	
Vinyl chloride	ug/L	50	54.1	108	50-150	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

QC Batch: MSV/32630 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92258453004, 92258453011, 92258453014, 92258453022

METHOD BLANK: 1512486 Matrix: Water
Associated Lab Samples: 92258453004, 92258453011, 92258453014, 92258453022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	07/18/15 00:47	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/18/15 00:47	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/18/15 00:47	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/18/15 00:47	
1,1-Dichloroethane	ug/L	ND	1.0	07/18/15 00:47	
1,1-Dichloroethene	ug/L	ND	1.0	07/18/15 00:47	
1,1-Dichloropropene	ug/L	ND	1.0	07/18/15 00:47	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	07/18/15 00:47	
1,2,3-Trichloropropane	ug/L	ND	1.0	07/18/15 00:47	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	07/18/15 00:47	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	07/18/15 00:47	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	07/18/15 00:47	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/18/15 00:47	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/18/15 00:47	
1,2-Dichloroethane	ug/L	ND	1.0	07/18/15 00:47	
1,2-Dichloropropane	ug/L	ND	1.0	07/18/15 00:47	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	07/18/15 00:47	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/18/15 00:47	
1,3-Dichloropropane	ug/L	ND	1.0	07/18/15 00:47	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/18/15 00:47	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	07/18/15 00:47	
2,2-Dichloropropane	ug/L	ND	1.0	07/18/15 00:47	
2-Chlorotoluene	ug/L	ND	1.0	07/18/15 00:47	
4-Chlorotoluene	ug/L	ND	1.0	07/18/15 00:47	
Benzene	ug/L	ND	1.0	07/18/15 00:47	
Bromobenzene	ug/L	ND	1.0	07/18/15 00:47	
Bromochloromethane	ug/L	ND	1.0	07/18/15 00:47	
Bromodichloromethane	ug/L	ND	1.0	07/18/15 00:47	
Bromoform	ug/L	ND	1.0	07/18/15 00:47	
Bromomethane	ug/L	ND	2.0	07/18/15 00:47	
Carbon tetrachloride	ug/L	ND	1.0	07/18/15 00:47	
Chlorobenzene	ug/L	ND	1.0	07/18/15 00:47	
Chloroethane	ug/L	ND	1.0	07/18/15 00:47	
Chloroform	ug/L	ND	1.0	07/18/15 00:47	
Chloromethane	ug/L	ND	1.0	07/18/15 00:47	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/18/15 00:47	
Dibromochloromethane	ug/L	ND	1.0	07/18/15 00:47	
Dibromomethane	ug/L	ND	1.0	07/18/15 00:47	
Dichlorodifluoromethane	ug/L	ND	1.0	07/18/15 00:47	
Ethylbenzene	ug/L	ND	1.0	07/18/15 00:47	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	07/18/15 00:47	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

METHOD BLANK: 1512486 Matrix: Water
Associated Lab Samples: 92258453004, 92258453011, 92258453014, 92258453022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	1.0	07/18/15 00:47	
m&p-Xylene	ug/L	ND	2.0	07/18/15 00:47	
Methylene Chloride	ug/L	ND	2.0	07/18/15 00:47	
n-Butylbenzene	ug/L	ND	1.0	07/18/15 00:47	
n-Propylbenzene	ug/L	ND	1.0	07/18/15 00:47	
Naphthalene	ug/L	ND	1.0	07/18/15 00:47	
o-Xylene	ug/L	ND	1.0	07/18/15 00:47	
p-Isopropyltoluene	ug/L	ND	1.0	07/18/15 00:47	
sec-Butylbenzene	ug/L	ND	1.0	07/18/15 00:47	
Styrene	ug/L	ND	1.0	07/18/15 00:47	
tert-Butylbenzene	ug/L	ND	1.0	07/18/15 00:47	
Tetrachloroethene	ug/L	ND	1.0	07/18/15 00:47	
Toluene	ug/L	ND	1.0	07/18/15 00:47	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/18/15 00:47	
Trichloroethene	ug/L	ND	1.0	07/18/15 00:47	
Trichlorofluoromethane	ug/L	ND	1.0	07/18/15 00:47	
Vinyl chloride	ug/L	ND	1.0	07/18/15 00:47	
1,2-Dichloroethane-d4 (S)	%	105	70-130	07/18/15 00:47	
4-Bromofluorobenzene (S)	%	107	70-130	07/18/15 00:47	
Toluene-d8 (S)	%	101	70-130	07/18/15 00:47	

LABORATORY CONTROL SAMPLE: 1512487

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.5	101	70-130	
1,1,1-Trichloroethane	ug/L	50	54.7	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.0	100	70-130	
1,1,2-Trichloroethane	ug/L	50	48.1	96	70-130	
1,1-Dichloroethane	ug/L	50	52.5	105	70-130	
1,1-Dichloroethene	ug/L	50	55.8	112	70-132	
1,1-Dichloropropene	ug/L	50	53.9	108	70-130	
1,2,3-Trichlorobenzene	ug/L	50	47.3	95	70-135	
1,2,3-Trichloropropane	ug/L	50	48.2	96	70-130	
1,2,4-Trichlorobenzene	ug/L	50	48.2	96	70-134	
1,2,4-Trimethylbenzene	ug/L	50	48.4	97	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	49.3	99	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.9	102	70-130	
1,2-Dichlorobenzene	ug/L	50	50.8	102	70-130	
1,2-Dichloroethane	ug/L	50	48.7	97	70-130	
1,2-Dichloropropane	ug/L	50	49.7	99	70-130	
1,3,5-Trimethylbenzene	ug/L	50	49.2	98	70-130	
1,3-Dichlorobenzene	ug/L	50	48.8	98	70-130	
1,3-Dichloropropane	ug/L	50	49.6	99	70-130	
1,4-Dichlorobenzene	ug/L	50	48.8	98	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

LABORATORY CONTROL SAMPLE: 1512487

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	1880	188	71-125	L0
2,2-Dichloropropane	ug/L	50	50.7	101	58-145	
2-Chlorotoluene	ug/L	50	49.7	99	70-130	
4-Chlorotoluene	ug/L	50	47.9	96	70-130	
Benzene	ug/L	50	51.3	103	70-130	
Bromobenzene	ug/L	50	46.7	93	70-130	
Bromochloromethane	ug/L	50	52.7	105	70-130	
Bromodichloromethane	ug/L	50	52.8	106	70-130	
Bromoform	ug/L	50	40.9	82	70-130	
Bromomethane	ug/L	50	52.0	104	54-130	
Carbon tetrachloride	ug/L	50	53.0	106	70-132	
Chlorobenzene	ug/L	50	50.7	101	70-130	
Chloroethane	ug/L	50	49.4	99	64-134	
Chloroform	ug/L	50	53.2	106	70-130	
Chloromethane	ug/L	50	53.2	106	64-130	
cis-1,2-Dichloroethene	ug/L	50	52.2	104	70-131	
Dibromochloromethane	ug/L	50	52.1	104	70-130	
Dibromomethane	ug/L	50	50.5	101	70-131	
Dichlorodifluoromethane	ug/L	50	51.9	104	56-130	
Ethylbenzene	ug/L	50	50.1	100	70-130	
Hexachloro-1,3-butadiene	ug/L	50	48.3	97	70-130	
Isopropylbenzene (Cumene)	ug/L	50	50.8	102	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methylene Chloride	ug/L	50	57.0	114	63-130	
n-Butylbenzene	ug/L	50	47.5	95	70-130	
n-Propylbenzene	ug/L	50	49.1	98	70-130	
Naphthalene	ug/L	50	50.6	101	70-138	
o-Xylene	ug/L	50	51.4	103	70-130	
p-Isopropyltoluene	ug/L	50	47.5	95	70-130	
sec-Butylbenzene	ug/L	50	49.6	99	70-130	
Styrene	ug/L	50	51.4	103	70-130	
tert-Butylbenzene	ug/L	50	41.5	83	70-130	
Tetrachloroethene	ug/L	50	47.3	95	70-130	
Toluene	ug/L	50	50.9	102	70-130	
trans-1,2-Dichloroethene	ug/L	50	53.7	107	70-130	
Trichloroethene	ug/L	50	48.9	98	70-130	
Trichlorofluoromethane	ug/L	50	49.4	99	62-133	
Vinyl chloride	ug/L	50	55.0	110	50-150	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

MATRIX SPIKE SAMPLE: 1512488

Parameter	Units	92258519001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	18.4	92	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	24.5	122	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	21.4	107	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	22.3	112	70-130	
1,1-Dichloroethane	ug/L	ND	20	26.5	133	70-130	M1
1,1-Dichloroethene	ug/L	ND	20	27.2	136	70-166	
1,1-Dichloropropene	ug/L	ND	20	28.1	140	70-130	M1
1,2,3-Trichlorobenzene	ug/L	ND	20	18.5	92	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	18.9	95	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.9	94	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	20.5	103	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	16.1	81	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.3	102	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.9	105	70-130	
1,2-Dichloroethane	ug/L	ND	20	20.5	102	70-130	
1,2-Dichloropropane	ug/L	ND	20	24.0	120	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	20.3	101	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	20.3	101	70-130	
1,3-Dichloropropane	ug/L	ND	20	20.4	102	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	19.8	99	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	1190	298	70-130	M0
2,2-Dichloropropane	ug/L	ND	20	22.8	114	70-130	
2-Chlorotoluene	ug/L	ND	20	20.3	101	70-130	
4-Chlorotoluene	ug/L	ND	20	19.3	96	70-130	
Benzene	ug/L	ND	20	26.3	131	70-148	
Bromobenzene	ug/L	ND	20	19.0	95	70-130	
Bromochloromethane	ug/L	ND	20	27.3	136	70-130	M1
Bromodichloromethane	ug/L	ND	20	19.8	99	70-130	
Bromoform	ug/L	ND	20	15.6	78	70-130	
Bromomethane	ug/L	ND	20	22.5	112	70-130	
Carbon tetrachloride	ug/L	ND	20	20.1	100	70-130	
Chlorobenzene	ug/L	ND	20	21.2	106	70-146	
Chloroethane	ug/L	ND	20	22.8	114	70-130	
Chloroform	ug/L	ND	20	25.9	129	70-130	
Chloromethane	ug/L	ND	20	22.9	114	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	25.6	128	70-130	
Dibromochloromethane	ug/L	ND	20	17.8	89	70-130	
Dibromomethane	ug/L	ND	20	22.6	113	70-130	
Dichlorodifluoromethane	ug/L	ND	20	15.4	77	70-130	
Ethylbenzene	ug/L	ND	20	20.6	103	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	20.5	103	70-130	
Isopropylbenzene (Cumene)	ug/L	ND	20	20.8	104	70-130	
m&p-Xylene	ug/L	ND	40	40.7	102	70-130	
Methylene Chloride	ug/L	ND	20	26.7	134	70-130	M1
n-Butylbenzene	ug/L	ND	20	18.5	92	70-130	
n-Propylbenzene	ug/L	ND	20	20.9	104	70-130	
Naphthalene	ug/L	ND	20	20.8	104	70-130	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

MATRIX SPIKE SAMPLE: 1512488

Parameter	Units	92258519001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	20.3	102	70-130	
p-Isopropyltoluene	ug/L	ND	20	19.9	100	70-130	
sec-Butylbenzene	ug/L	ND	20	20.6	103	70-130	
Styrene	ug/L	ND	20	20.9	105	70-130	
tert-Butylbenzene	ug/L	ND	20	16.9	85	70-130	
Tetrachloroethene	ug/L	ND	20	19.8	99	70-130	
Toluene	ug/L	ND	20	24.8	124	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	26.4	132	70-130	M1
Trichloroethene	ug/L	ND	20	24.0	120	69-151	
Trichlorofluoromethane	ug/L	ND	20	20.5	102	70-130	
Vinyl chloride	ug/L	ND	20	27.5	138	70-130	M1
1,2-Dichloroethane-d4 (S)	%				85	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				101	70-130	

SAMPLE DUPLICATE: 1512489

Parameter	Units	92258519002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

SAMPLE DUPLICATE: 1512489

Parameter	Units	92258519002 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	114	97	16		
4-Bromofluorobenzene (S)	%	113	110	3		
Toluene-d8 (S)	%	103	105	2		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

QC Batch: MSV/32638 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92258453004, 92258453005, 92258453006, 92258453007, 92258453008, 92258453009, 92258453010, 92258453011, 92258453012

METHOD BLANK: 1513180 Matrix: Water
Associated Lab Samples: 92258453004, 92258453005, 92258453006, 92258453007, 92258453008, 92258453009, 92258453010, 92258453011, 92258453012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	07/20/15 12:41	
1,2-Dichloroethane-d4 (S)	%	109	50-150	07/20/15 12:41	
Toluene-d8 (S)	%	100	50-150	07/20/15 12:41	

LABORATORY CONTROL SAMPLE: 1513181

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	20.7	103	71-125	
1,2-Dichloroethane-d4 (S)	%			103	50-150	
Toluene-d8 (S)	%			98	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1513182 1513183

Parameter	Units	92258453004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	40	60	37.9	66.8	95	111	50-150	55	30	R1
1,2-Dichloroethane-d4 (S)	%						109	109	50-150		150	
Toluene-d8 (S)	%						97	97	50-150		150	

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(704)875-9092

QUALIFIERS

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
C9	Common Laboratory Contaminant.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TK LOUISVILLE 6122090322
Pace Project No.: 92258453

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92258453022	**TK PURGE WATER**	EPA 3010	MPRP/19034	EPA 6010	ICP/17105
92258453022	**TK PURGE WATER**	EPA 7470	MERP/8097	EPA 7470	MERC/7774
92258453001	**MW-3**	EPA 8260	MSV/32572		
92258453002	**MW-10**	EPA 8260	MSV/32572		
92258453003	**MW-22**	EPA 8260	MSV/32572		
92258453004	**MW-5**	EPA 8260	MSV/32630		
92258453005	**MW-14**	EPA 8260	MSV/32608		
92258453006	**MW-19**	EPA 8260	MSV/32608		
92258453007	**MW-20**	EPA 8260	MSV/32572		
92258453008	**MW-25**	EPA 8260	MSV/32608		
92258453009	**MW-27**	EPA 8260	MSV/32572		
92258453010	**MW-28**	EPA 8260	MSV/32572		
92258453011	**DUP-1**	EPA 8260	MSV/32630		
92258453012	**EB-1**	EPA 8260	MSV/32572		
92258453013	**SEEP G**	EPA 8260	MSV/32572		
92258453014	**SEEP H**	EPA 8260	MSV/32630		
92258453015	**MANSON BRANCH #2**	EPA 8260	MSV/32607		
92258453016	**SEEP #2**	EPA 8260	MSV/32607		
92258453017	**MB #3**	EPA 8260	MSV/32607		
92258453018	**MB #5**	EPA 8260	MSV/32607		
92258453019	**MB #15**	EPA 8260	MSV/32607		
92258453020	**MB #16**	EPA 8260	MSV/32607		
92258453021	**TB-1**	EPA 8260	MSV/32572		
92258453022	**TK PURGE WATER**	EPA 8260	MSV/32630		
92258453004	**MW-5**	EPA 8260B Mod.	MSV/32638		
92258453005	**MW-14**	EPA 8260B Mod.	MSV/32638		
92258453006	**MW-19**	EPA 8260B Mod.	MSV/32638		
92258453007	**MW-20**	EPA 8260B Mod.	MSV/32638		
92258453008	**MW-25**	EPA 8260B Mod.	MSV/32638		
92258453009	**MW-27**	EPA 8260B Mod.	MSV/32638		
92258453010	**MW-28**	EPA 8260B Mod.	MSV/32638		
92258453011	**DUP-1**	EPA 8260B Mod.	MSV/32638		
92258453012	**EB-1**	EPA 8260B Mod.	MSV/32638		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 18, 2015 Page 1 of 2*
	Document Number: **F-CHR-CS-003-rev.16**	Issuing Authority: Pace Huntersville Quality Office

Client Name: AMEC

* Page 2 of 2 is for Internal Use Only

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1401 **Type of Ice:** (Wet) Blue None

Temp Correction Factor **T1401** No Correction

Corrected Cooler Temp.: 6.0 °C

Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No N/A

Comments:

Optional
Proj. Due Date:
Proj. Name:

☑ Samples on ice, cooling process has begun

Date and Initials of person examining contents: AEX 7/14

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9. TK Purge water metals Bottles not pace
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☑No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted:_____ Date/Time:_____

Comments/ Resolution:_____

SCURF Review: JG Date: 7/14/15

SRF Review: JG Date: 7/15/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Place label here

WO# : 92258453

92258453

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 3

1900263

Section A Required Client Information:

Company: AMEC Foster Wheeler
Address: 1075 Big Shanty RD Suite 100 Kennesaw, GA 30144
Email To: Rhonda Quinn
Phone: 770-421-3400 Fax: 770-421-3456
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Rhonda Quinn
Copy To: Greg Wrenn
Purchase Order No.:
Project Name: TK Louisville
Project Number: 6122090322

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information / SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N	VOCs List, 1,4-Dioxane	1,4 Dioxane (SIM)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-3	WT				7/8/15	1458		3				X						3				9258451 001
2	MW-5	WT				7/8/15	1610		6										3	3			002
3	MW-10	WT				7/9/15	1248		3										3				003
4	MW-14	WT				7/8/15	1110		6										3	3			004
5	MW-19	WT				7/8/15	1335		6										3	3			005
6	MW-20	WT				7/8/15	1313		6										3	3			006
7	MW-22	WT				7/9/15	1500		3										3				007
8	MW-25	WT				7/9/15	1130		6										3	3			008
9	MW-27	WT				7/8/15	1638		6										3	3			009
10	MW-28	WT				7/8/15	1712		6										3	3			010
11	DUP-1	WT				7/8/15	1200		6										3	3			011
12	EB-1	WT			0700	7/9/15	0900		6										3	3			012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
VOCs over a site specific list	AMEC Foster Wheeler	7/13/15	1030		7/14/15	10:20	6.0	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mark A. Ever G.

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 7/13/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 3

1900264

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AMEC Foster Wheeler	Report To: Rhonda Quinn	Attention:
Address: 1075 Big Shanty RD	Copy To: Greg Wrenn	Company Name:
suite 100 Kennesaw, GA 30144		Address:
Email To: Rhonda Quinn	Purchase Order No.:	Pace Quote Reference:
Phone: 770-421-3400 Fax: 770-421-3486	Project Name: TK Louisville	Pace Project Manager:
Requested Due Date/TAT:	Project Number: 6122040322	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

Matrix Codes (see valid codes to left): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): VOCs List + 1,4-Dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Seep G					7/9/15	1625		3				X					Y	Y		9225845 3 013
2	seep H					7/9/15	1608		3				X					Y	Y		014
3	Manson Branch #2					7/9/15	1558		3				X					Y	Y		015
4	seep #2					7/9/15	1640		3				X					Y	Y		016
5	MB #3					7/10/15	0945		3				X					Y	Y		017
6	MB #5					7/10/15	1020		3				X					Y	Y		018
7	MB #15					7/10/15	1005		3				X					Y	Y		019
8	MB #16					7/10/15	1040		3				X					Y	Y		020
9	TB-1								2				X					Y	2		021
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
VOCs and a site specific list	[signature] AMEC Foster Wheeler	7/13/15	1030	[signature]	7/14/15	10:20	6.0	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Evan G & Mark A.

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/13/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 3 of 3

1900265

Section A Required Client Information:

Company: AMEC Foster Wheeler
Address: 1075 Big Shanty RD
Suite 100 Kennesaw, GA 30144
Email To: Rhonda Quinn
Phone: 770-421-3400 Fax: 770-421-3486
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Rhonda Quinn
Copy To: Greg Wynn
Purchase Order No.:
Project Name: TK Louisville
Project Number: 6220903 22

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE:

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Total Metals	VOCs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	TK Purge Water			7/10/15	0850				4			X	X						1	3		92258453 92258442 711415
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
RCRA Metals = Total Metals	AMEC Foster Wheeler	7/13/15	1030		7/13/15	10:20	6.0	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Evan G & Mark A
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 7/13/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

June 10, 2016

Stipulation of Approval for Commercial Laboratory

According to Georgia State Law (O.C.G.A. 12-2-9) Commercial Rules for Commercial Laboratory Accreditation, any person submitting data to EPD prepared by a commercial laboratory shall stipulate that the laboratory is approved (Chapter 391-3-26-.05). The following information is provided as requested.

Laboratory	Pace Analytical Services, Inc. 9800 Kincey Ave, Suite 100 Huntersville, NC 28078 (704) 875-9092
Accredited By:	Commonwealth of Virginia, Department of General Services; Accrediting NELAP Authority
Accreditation ID:	Laboratory ID#: 460221
Scope:	Clean Water Act – Extractable Organics, Pesticides, PCBs, Volatile Oraganics RCRA/CERCLA – Extractable Organics, Pesticides, PCBs, Volatile Organics
Effective:	June 15, 2015
Expires:	June 14, 2016

Any question regarding this stipulation of approval may be directed to Pace Analytical at 704 - 875 - 9092. Thank you for your business and please do not hesitate to contact us if we can be of further assistance.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 06, 2015

Rhonda Quinn
Amec Foster Wheeler
1075 Big Shanty Rd
Suite 100
Kennesaw, GA 30144

RE: Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Dear Rhonda Quinn:
Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Greg Wrenn, Amec Foster Wheeler

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CERTIFICATIONS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92270034001	**MW-22**	Water	09/30/15 16:00	10/01/15 09:30
92270034002	**TRIP**	Water	09/30/15 00:00	10/01/15 09:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92270034001	**MW-22**	EPA 8260	NB	61	PASI-C
92270034002	**TRIP**	EPA 8260	NB	61	PASI-C

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PROJECT NARRATIVE

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: October 06, 2015

General Information:
2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/33642

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1573736)
  - 1,4-Dioxane (p-Dioxane)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/33629

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92270045002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1573091)
  - Bromomethane

QC Batch: MSV/33642

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92270034001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1573737)
  - 1,4-Dioxane (p-Dioxane)

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: October 06, 2015

QC Batch: MSV/33642

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92270034001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1573737)
  - Hexachloro-1,3-butadiene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: MSV/33629

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 1573092)
  - 1,3,5-Trimethylbenzene
  - Isopropylbenzene (Cumene)

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Sample: MW-22 **Lab ID: 92270034001** Collected: 09/30/15 16:00 Received: 10/01/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		10/03/15 04:52	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		10/03/15 04:52	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/03/15 04:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/03/15 04:52	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/03/15 04:52	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/03/15 04:52	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		10/03/15 04:52	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		10/03/15 04:52	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		10/03/15 04:52	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/03/15 04:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/03/15 04:52	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/03/15 04:52	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/03/15 04:52	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/03/15 04:52	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		10/03/15 04:52	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		10/03/15 04:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		10/03/15 04:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/03/15 04:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/03/15 04:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/03/15 04:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/03/15 04:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		10/03/15 04:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/03/15 04:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		10/03/15 04:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/03/15 04:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		10/03/15 04:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/03/15 04:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/03/15 04:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/03/15 04:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/03/15 04:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		10/03/15 04:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		10/03/15 04:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		10/03/15 04:52	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		10/03/15 04:52	123-91-1	L3,M0
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/03/15 04:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		10/03/15 04:52	87-68-3	M1
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		10/03/15 04:52	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		10/03/15 04:52	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		10/03/15 04:52	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		10/03/15 04:52	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		10/03/15 04:52	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		10/03/15 04:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/03/15 04:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/03/15 04:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/03/15 04:52	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		10/03/15 04:52	108-88-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Sample: MW-22 **Lab ID: 92270034001** Collected: 09/30/15 16:00 Received: 10/01/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		10/03/15 04:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		10/03/15 04:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/03/15 04:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/03/15 04:52	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/03/15 04:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/03/15 04:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/03/15 04:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		10/03/15 04:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		10/03/15 04:52	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/03/15 04:52	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		10/03/15 04:52	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		10/03/15 04:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		10/03/15 04:52	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		10/03/15 04:52	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/03/15 04:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Sample: TRIP **Lab ID: 92270034002** Collected: 09/30/15 00:00 Received: 10/01/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		10/02/15 15:17	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		10/02/15 15:17	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/02/15 15:17	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/02/15 15:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/02/15 15:17	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/02/15 15:17	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		10/02/15 15:17	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		10/02/15 15:17	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		10/02/15 15:17	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/02/15 15:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/02/15 15:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/02/15 15:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/02/15 15:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/02/15 15:17	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		10/02/15 15:17	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		10/02/15 15:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		10/02/15 15:17	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/02/15 15:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/02/15 15:17	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/02/15 15:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/02/15 15:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		10/02/15 15:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/02/15 15:17	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		10/02/15 15:17	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/02/15 15:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		10/02/15 15:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/02/15 15:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/02/15 15:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/02/15 15:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/02/15 15:17	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		10/02/15 15:17	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		10/02/15 15:17	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		10/02/15 15:17	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		10/02/15 15:17	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/02/15 15:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		10/02/15 15:17	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		10/02/15 15:17	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		10/02/15 15:17	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		10/02/15 15:17	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		10/02/15 15:17	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		10/02/15 15:17	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		10/02/15 15:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/02/15 15:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/02/15 15:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/02/15 15:17	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		10/02/15 15:17	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Sample: TRIP **Lab ID: 92270034002** Collected: 09/30/15 00:00 Received: 10/01/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		10/02/15 15:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		10/02/15 15:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/02/15 15:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/02/15 15:17	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/02/15 15:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/02/15 15:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/02/15 15:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		10/02/15 15:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		10/02/15 15:17	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/02/15 15:17	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		10/02/15 15:17	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		10/02/15 15:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		10/02/15 15:17	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		10/02/15 15:17	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/02/15 15:17	2037-26-5	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

QC Batch: MSV/33629
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92270034002

METHOD BLANK: 1573089
Matrix: Water
Associated Lab Samples: 92270034002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1,1-Trichloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1-Dichloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,1-Dichloroethene	ug/L	ND	1.0	10/02/15 11:54	
1,1-Dichloropropene	ug/L	ND	1.0	10/02/15 11:54	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,2,3-Trichloropropane	ug/L	ND	1.0	10/02/15 11:54	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	10/02/15 11:54	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dichloroethane	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dichloropropane	ug/L	ND	1.0	10/02/15 11:54	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	10/02/15 11:54	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,3-Dichloropropane	ug/L	ND	1.0	10/02/15 11:54	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	10/02/15 11:54	
2,2-Dichloropropane	ug/L	ND	1.0	10/02/15 11:54	
2-Chlorotoluene	ug/L	ND	1.0	10/02/15 11:54	
4-Chlorotoluene	ug/L	ND	1.0	10/02/15 11:54	
Benzene	ug/L	ND	1.0	10/02/15 11:54	
Bromobenzene	ug/L	ND	1.0	10/02/15 11:54	
Bromochloromethane	ug/L	ND	1.0	10/02/15 11:54	
Bromodichloromethane	ug/L	ND	1.0	10/02/15 11:54	
Bromoform	ug/L	ND	1.0	10/02/15 11:54	
Bromomethane	ug/L	ND	2.0	10/02/15 11:54	
Carbon tetrachloride	ug/L	ND	1.0	10/02/15 11:54	
Chlorobenzene	ug/L	ND	1.0	10/02/15 11:54	
Chloroethane	ug/L	ND	1.0	10/02/15 11:54	
Chloroform	ug/L	ND	1.0	10/02/15 11:54	
Chloromethane	ug/L	ND	1.0	10/02/15 11:54	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/02/15 11:54	
Dibromochloromethane	ug/L	ND	1.0	10/02/15 11:54	
Dibromomethane	ug/L	ND	1.0	10/02/15 11:54	
Dichlorodifluoromethane	ug/L	ND	1.0	10/02/15 11:54	
Ethylbenzene	ug/L	ND	1.0	10/02/15 11:54	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/02/15 11:54	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

METHOD BLANK: 1573089 Matrix: Water
Associated Lab Samples: 92270034002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/02/15 11:54	
m&p-Xylene	ug/L	ND	2.0	10/02/15 11:54	
Methylene Chloride	ug/L	ND	2.0	10/02/15 11:54	
n-Butylbenzene	ug/L	ND	1.0	10/02/15 11:54	
n-Propylbenzene	ug/L	ND	1.0	10/02/15 11:54	
Naphthalene	ug/L	ND	1.0	10/02/15 11:54	
o-Xylene	ug/L	ND	1.0	10/02/15 11:54	
p-Isopropyltoluene	ug/L	ND	1.0	10/02/15 11:54	
sec-Butylbenzene	ug/L	ND	1.0	10/02/15 11:54	
Styrene	ug/L	ND	1.0	10/02/15 11:54	
tert-Butylbenzene	ug/L	ND	1.0	10/02/15 11:54	
Tetrachloroethene	ug/L	ND	1.0	10/02/15 11:54	
Toluene	ug/L	ND	1.0	10/02/15 11:54	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/02/15 11:54	
Trichloroethene	ug/L	ND	1.0	10/02/15 11:54	
Trichlorofluoromethane	ug/L	ND	1.0	10/02/15 11:54	
Vinyl chloride	ug/L	ND	1.0	10/02/15 11:54	
1,2-Dichloroethane-d4 (S)	%	101	70-130	10/02/15 11:54	
4-Bromofluorobenzene (S)	%	103	70-130	10/02/15 11:54	
Toluene-d8 (S)	%	100	70-130	10/02/15 11:54	

LABORATORY CONTROL SAMPLE: 1573090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.2	96	70-130	
1,1,1-Trichloroethane	ug/L	50	54.4	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.5	111	70-130	
1,1,2-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1-Dichloroethane	ug/L	50	54.3	109	70-130	
1,1-Dichloroethene	ug/L	50	51.5	103	70-132	
1,1-Dichloropropene	ug/L	50	54.1	108	70-130	
1,2,3-Trichlorobenzene	ug/L	50	45.7	91	70-135	
1,2,3-Trichloropropane	ug/L	50	49.8	100	70-130	
1,2,4-Trichlorobenzene	ug/L	50	49.0	98	70-134	
1,2,4-Trimethylbenzene	ug/L	50	52.5	105	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.9	94	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	50.2	100	70-130	
1,2-Dichloroethane	ug/L	50	47.1	94	70-130	
1,2-Dichloropropane	ug/L	50	52.0	104	70-130	
1,3,5-Trimethylbenzene	ug/L	50	54.3	109	70-130	
1,3-Dichlorobenzene	ug/L	50	53.4	107	70-130	
1,3-Dichloropropane	ug/L	50	49.8	100	70-130	
1,4-Dichlorobenzene	ug/L	50	50.9	102	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

LABORATORY CONTROL SAMPLE: 1573090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	1200	120	71-125	
2,2-Dichloropropane	ug/L	50	57.0	114	58-145	
2-Chlorotoluene	ug/L	50	48.7	97	70-130	
4-Chlorotoluene	ug/L	50	52.2	104	70-130	
Benzene	ug/L	50	52.0	104	70-130	
Bromobenzene	ug/L	50	51.7	103	70-130	
Bromochloromethane	ug/L	50	55.9	112	70-130	
Bromodichloromethane	ug/L	50	52.2	104	70-130	
Bromoform	ug/L	50	43.9	88	70-130	
Bromomethane	ug/L	50	31.2	62	54-130	
Carbon tetrachloride	ug/L	50	53.5	107	70-132	
Chlorobenzene	ug/L	50	51.2	102	70-130	
Chloroethane	ug/L	50	41.4	83	64-134	
Chloroform	ug/L	50	52.7	105	70-130	
Chloromethane	ug/L	50	53.9	108	64-130	
cis-1,2-Dichloroethene	ug/L	50	55.3	111	70-131	
Dibromochloromethane	ug/L	50	46.6	93	70-130	
Dibromomethane	ug/L	50	50.3	101	70-131	
Dichlorodifluoromethane	ug/L	50	54.3	109	56-130	
Ethylbenzene	ug/L	50	52.5	105	70-130	
Hexachloro-1,3-butadiene	ug/L	50	64.6	129	70-130	
Isopropylbenzene (Cumene)	ug/L	50	55.6	111	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methylene Chloride	ug/L	50	54.9	110	63-130	
n-Butylbenzene	ug/L	50	56.4	113	70-130	
n-Propylbenzene	ug/L	50	53.6	107	70-130	
Naphthalene	ug/L	50	45.6	91	70-138	
o-Xylene	ug/L	50	50.4	101	70-130	
p-Isopropyltoluene	ug/L	50	54.4	109	70-130	
sec-Butylbenzene	ug/L	50	57.3	115	70-130	
Styrene	ug/L	50	51.1	102	70-130	
tert-Butylbenzene	ug/L	50	44.8	90	70-130	
Tetrachloroethene	ug/L	50	48.1	96	70-130	
Toluene	ug/L	50	50.1	100	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.6	105	70-130	
Trichloroethene	ug/L	50	47.2	94	70-130	
Trichlorofluoromethane	ug/L	50	49.6	99	62-133	
Vinyl chloride	ug/L	50	56.7	113	50-150	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			97	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

MATRIX SPIKE SAMPLE: 1573091

Parameter	Units	92270045002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	2000	2010	100	70-130	
1,1,1-Trichloroethane	ug/L	ND	2000	2330	116	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	2000	2160	108	70-130	
1,1,2-Trichloroethane	ug/L	ND	2000	2120	106	70-130	
1,1-Dichloroethane	ug/L	ND	2000	2340	117	70-130	
1,1-Dichloroethene	ug/L	ND	2000	2300	115	70-166	
1,1-Dichloropropene	ug/L	ND	2000	2370	119	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	2000	1630	81	70-130	
1,2,3-Trichloropropane	ug/L	ND	2000	2060	103	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	2000	1920	96	70-130	
1,2,4-Trimethylbenzene	ug/L	1430	2000	3610	109	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	2000	1550	77	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	2000	2080	104	70-130	
1,2-Dichlorobenzene	ug/L	ND	2000	2000	100	70-130	
1,2-Dichloroethane	ug/L	ND	2000	2050	102	70-130	
1,2-Dichloropropane	ug/L	ND	2000	2250	112	70-130	
1,3,5-Trimethylbenzene	ug/L	368	2000	2710	117	70-130	
1,3-Dichlorobenzene	ug/L	ND	2000	2190	109	70-130	
1,3-Dichloropropane	ug/L	ND	2000	2100	105	70-130	
1,4-Dichlorobenzene	ug/L	ND	2000	2070	104	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	40000	43400	109	70-130	
2,2-Dichloropropane	ug/L	ND	2000	2180	109	70-130	
2-Chlorotoluene	ug/L	ND	2000	2310	116	70-130	
4-Chlorotoluene	ug/L	ND	2000	2170	108	70-130	
Benzene	ug/L	652	2000	2860	110	70-148	
Bromobenzene	ug/L	ND	2000	2190	109	70-130	
Bromochloromethane	ug/L	ND	2000	2390	120	70-130	
Bromodichloromethane	ug/L	ND	2000	2100	105	70-130	
Bromoform	ug/L	ND	2000	1580	79	70-130	
Bromomethane	ug/L	ND	2000	1000	50	70-130	M1
Carbon tetrachloride	ug/L	ND	2000	2230	112	70-130	
Chlorobenzene	ug/L	ND	2000	2130	107	70-146	
Chloroethane	ug/L	ND	2000	1900	95	70-130	
Chloroform	ug/L	ND	2000	2230	112	70-130	
Chloromethane	ug/L	ND	2000	2500	125	70-130	
cis-1,2-Dichloroethene	ug/L	ND	2000	2310	116	70-130	
Dibromochloromethane	ug/L	ND	2000	1750	87	70-130	
Dibromomethane	ug/L	ND	2000	2170	108	70-130	
Dichlorodifluoromethane	ug/L	ND	2000	2530	126	70-130	
Ethylbenzene	ug/L	1070	2000	3280	111	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	2000	2440	122	70-130	
Isopropylbenzene (Cumene)	ug/L	54.0J	2000	2420	118	70-130	
m&p-Xylene	ug/L	3680	4000	7930	106	70-130	
Methylene Chloride	ug/L	ND	2000	2220	111	70-130	
n-Butylbenzene	ug/L	ND	2000	2230	110	70-130	
n-Propylbenzene	ug/L	122	2000	2450	116	70-130	
Naphthalene	ug/L	348	2000	1920	78	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

MATRIX SPIKE SAMPLE: 1573091

Parameter	Units	92270045002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	1400	2000	3480	104	70-130	
p-Isopropyltoluene	ug/L	ND	2000	2240	111	70-130	
sec-Butylbenzene	ug/L	ND	2000	2400	120	70-130	
Styrene	ug/L	ND	2000	2040	102	70-130	
tert-Butylbenzene	ug/L	ND	2000	1920	96	70-130	
Tetrachloroethene	ug/L	ND	2000	2020	101	70-130	
Toluene	ug/L	9210	2000	10700	75	70-155	
trans-1,2-Dichloroethene	ug/L	ND	2000	2300	115	70-130	
Trichloroethene	ug/L	ND	2000	2040	102	69-151	
Trichlorofluoromethane	ug/L	ND	2000	2330	117	70-130	
Vinyl chloride	ug/L	ND	2000	2480	124	70-130	
1,2-Dichloroethane-d4 (S)	%				102	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1573092

Parameter	Units	92270045004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	671	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	1520	1540	2	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	1370	405	109	30	D6
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	558	583	4	30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

SAMPLE DUPLICATE: 1573092

Parameter	Units	92270045004 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	36.5J	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	1310	1350	3	30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	335	102	107	30	D6
m&p-Xylene	ug/L	4090	4250	4	30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	88.4J	ND		30	
n-Propylbenzene	ug/L	172	167	3	30	
Naphthalene	ug/L	426	419	2	30	
o-Xylene	ug/L	1850	1890	2	30	
p-Isopropyltoluene	ug/L	50.2J	ND		30	
sec-Butylbenzene	ug/L	462	ND		30	
Styrene	ug/L	50.5J	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	10700	11100	3	30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	110	111	1		
4-Bromofluorobenzene (S)	%	106	105	1		
Toluene-d8 (S)	%	99	99	0		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

QC Batch: MSV/33642
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92270034001

METHOD BLANK: 1573735
Matrix: Water
Associated Lab Samples: 92270034001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1,1-Trichloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1-Dichloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,1-Dichloroethene	ug/L	ND	1.0	10/03/15 00:20	
1,1-Dichloropropene	ug/L	ND	1.0	10/03/15 00:20	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,2,3-Trichloropropane	ug/L	ND	1.0	10/03/15 00:20	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	10/03/15 00:20	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dichloroethane	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dichloropropane	ug/L	ND	1.0	10/03/15 00:20	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	10/03/15 00:20	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,3-Dichloropropane	ug/L	ND	1.0	10/03/15 00:20	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	10/03/15 00:20	
2,2-Dichloropropane	ug/L	ND	1.0	10/03/15 00:20	
2-Chlorotoluene	ug/L	ND	1.0	10/03/15 00:20	
4-Chlorotoluene	ug/L	ND	1.0	10/03/15 00:20	
Benzene	ug/L	ND	1.0	10/03/15 00:20	
Bromobenzene	ug/L	ND	1.0	10/03/15 00:20	
Bromochloromethane	ug/L	ND	1.0	10/03/15 00:20	
Bromodichloromethane	ug/L	ND	1.0	10/03/15 00:20	
Bromoform	ug/L	ND	1.0	10/03/15 00:20	
Bromomethane	ug/L	ND	2.0	10/03/15 00:20	
Carbon tetrachloride	ug/L	ND	1.0	10/03/15 00:20	
Chlorobenzene	ug/L	ND	1.0	10/03/15 00:20	
Chloroethane	ug/L	ND	1.0	10/03/15 00:20	
Chloroform	ug/L	ND	1.0	10/03/15 00:20	
Chloromethane	ug/L	ND	1.0	10/03/15 00:20	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/03/15 00:20	
Dibromochloromethane	ug/L	ND	1.0	10/03/15 00:20	
Dibromomethane	ug/L	ND	1.0	10/03/15 00:20	
Dichlorodifluoromethane	ug/L	ND	1.0	10/03/15 00:20	
Ethylbenzene	ug/L	ND	1.0	10/03/15 00:20	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/03/15 00:20	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

METHOD BLANK: 1573735 Matrix: Water
Associated Lab Samples: 92270034001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/03/15 00:20	
m&p-Xylene	ug/L	ND	2.0	10/03/15 00:20	
Methylene Chloride	ug/L	ND	2.0	10/03/15 00:20	
n-Butylbenzene	ug/L	ND	1.0	10/03/15 00:20	
n-Propylbenzene	ug/L	ND	1.0	10/03/15 00:20	
Naphthalene	ug/L	ND	1.0	10/03/15 00:20	
o-Xylene	ug/L	ND	1.0	10/03/15 00:20	
p-Isopropyltoluene	ug/L	ND	1.0	10/03/15 00:20	
sec-Butylbenzene	ug/L	ND	1.0	10/03/15 00:20	
Styrene	ug/L	ND	1.0	10/03/15 00:20	
tert-Butylbenzene	ug/L	ND	1.0	10/03/15 00:20	
Tetrachloroethene	ug/L	ND	1.0	10/03/15 00:20	
Toluene	ug/L	ND	1.0	10/03/15 00:20	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/03/15 00:20	
Trichloroethene	ug/L	ND	1.0	10/03/15 00:20	
Trichlorofluoromethane	ug/L	ND	1.0	10/03/15 00:20	
Vinyl chloride	ug/L	ND	1.0	10/03/15 00:20	
1,2-Dichloroethane-d4 (S)	%	108	70-130	10/03/15 00:20	
4-Bromofluorobenzene (S)	%	96	70-130	10/03/15 00:20	
Toluene-d8 (S)	%	100	70-130	10/03/15 00:20	

LABORATORY CONTROL SAMPLE: 1573736

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	45.2	90	70-130	
1,1,1-Trichloroethane	ug/L	50	50.0	100	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	54.3	109	70-130	
1,1,2-Trichloroethane	ug/L	50	48.7	97	70-130	
1,1-Dichloroethane	ug/L	50	50.8	102	70-130	
1,1-Dichloroethene	ug/L	50	47.3	95	70-132	
1,1-Dichloropropene	ug/L	50	49.6	99	70-130	
1,2,3-Trichlorobenzene	ug/L	50	43.5	87	70-135	
1,2,3-Trichloropropane	ug/L	50	48.3	97	70-130	
1,2,4-Trichlorobenzene	ug/L	50	46.6	93	70-134	
1,2,4-Trimethylbenzene	ug/L	50	49.8	100	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	45.6	91	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.3	101	70-130	
1,2-Dichlorobenzene	ug/L	50	48.8	98	70-130	
1,2-Dichloroethane	ug/L	50	45.7	91	70-130	
1,2-Dichloropropane	ug/L	50	50.4	101	70-130	
1,3,5-Trimethylbenzene	ug/L	50	51.1	102	70-130	
1,3-Dichlorobenzene	ug/L	50	49.4	99	70-130	
1,3-Dichloropropane	ug/L	50	48.4	97	70-130	
1,4-Dichlorobenzene	ug/L	50	48.9	98	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

LABORATORY CONTROL SAMPLE: 1573736

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1000	1390	139	71-125	L0
2,2-Dichloropropane	ug/L	50	48.9	98	58-145	
2-Chlorotoluene	ug/L	50	45.6	91	70-130	
4-Chlorotoluene	ug/L	50	48.8	98	70-130	
Benzene	ug/L	50	50.3	101	70-130	
Bromobenzene	ug/L	50	49.4	99	70-130	
Bromochloromethane	ug/L	50	54.2	108	70-130	
Bromodichloromethane	ug/L	50	50.2	100	70-130	
Bromoform	ug/L	50	40.8	82	70-130	
Bromomethane	ug/L	50	33.7	67	54-130	
Carbon tetrachloride	ug/L	50	48.5	97	70-132	
Chlorobenzene	ug/L	50	48.0	96	70-130	
Chloroethane	ug/L	50	36.1	72	64-134	
Chloroform	ug/L	50	48.8	98	70-130	
Chloromethane	ug/L	50	49.7	99	64-130	
cis-1,2-Dichloroethene	ug/L	50	51.1	102	70-131	
Dibromochloromethane	ug/L	50	44.2	88	70-130	
Dibromomethane	ug/L	50	50.0	100	70-131	
Dichlorodifluoromethane	ug/L	50	47.2	94	56-130	
Ethylbenzene	ug/L	50	48.7	97	70-130	
Hexachloro-1,3-butadiene	ug/L	50	57.9	116	70-130	
Isopropylbenzene (Cumene)	ug/L	50	52.1	104	70-130	
m&p-Xylene	ug/L	100	96.5	96	70-130	
Methylene Chloride	ug/L	50	52.2	104	63-130	
n-Butylbenzene	ug/L	50	50.1	100	70-130	
n-Propylbenzene	ug/L	50	50.0	100	70-130	
Naphthalene	ug/L	50	44.6	89	70-138	
o-Xylene	ug/L	50	47.3	95	70-130	
p-Isopropyltoluene	ug/L	50	50.4	101	70-130	
sec-Butylbenzene	ug/L	50	52.5	105	70-130	
Styrene	ug/L	50	48.8	98	70-130	
tert-Butylbenzene	ug/L	50	41.6	83	70-130	
Tetrachloroethene	ug/L	50	44.3	89	70-130	
Toluene	ug/L	50	48.0	96	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.8	98	70-130	
Trichloroethene	ug/L	50	44.6	89	70-130	
Trichlorofluoromethane	ug/L	50	43.5	87	62-133	
Vinyl chloride	ug/L	50	51.7	103	50-150	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

MATRIX SPIKE SAMPLE: 1573737

Parameter	Units	92270034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20.0	100	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	23.2	116	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	22.0	110	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	20.5	103	70-130	
1,1-Dichloroethane	ug/L	ND	20	23.7	118	70-130	
1,1-Dichloroethene	ug/L	ND	20	22.5	112	70-166	
1,1-Dichloropropene	ug/L	ND	20	24.0	120	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	17.3	86	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	19.5	98	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	19.3	97	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	22.2	111	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	16.3	82	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	21.0	105	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.8	104	70-130	
1,2-Dichloroethane	ug/L	ND	20	19.5	97	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.4	112	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	23.6	118	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	21.9	109	70-130	
1,3-Dichloropropane	ug/L	ND	20	20.8	104	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	21.5	108	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	593	148	70-130	M0
2,2-Dichloropropane	ug/L	ND	20	22.1	111	70-130	
2-Chlorotoluene	ug/L	ND	20	21.0	105	70-130	
4-Chlorotoluene	ug/L	ND	20	21.7	109	70-130	
Benzene	ug/L	ND	20	22.9	115	70-148	
Bromobenzene	ug/L	ND	20	22.4	112	70-130	
Bromochloromethane	ug/L	ND	20	23.6	118	70-130	
Bromodichloromethane	ug/L	ND	20	20.9	105	70-130	
Bromoform	ug/L	ND	20	15.8	79	70-130	
Bromomethane	ug/L	ND	20	18.1	90	70-130	
Carbon tetrachloride	ug/L	ND	20	21.9	109	70-130	
Chlorobenzene	ug/L	ND	20	21.6	108	70-146	
Chloroethane	ug/L	ND	20	17.9	89	70-130	
Chloroform	ug/L	ND	20	22.4	112	70-130	
Chloromethane	ug/L	ND	20	23.4	117	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	23.6	118	70-130	
Dibromochloromethane	ug/L	ND	20	17.7	88	70-130	
Dibromomethane	ug/L	ND	20	21.7	108	70-130	
Dichlorodifluoromethane	ug/L	ND	20	23.3	116	70-130	
Ethylbenzene	ug/L	ND	20	22.3	111	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	27.7	138	70-130	M1
Isopropylbenzene (Cumene)	ug/L	ND	20	23.0	115	70-130	
m&p-Xylene	ug/L	ND	40	42.8	107	70-130	
Methylene Chloride	ug/L	ND	20	20.0	100	70-130	
n-Butylbenzene	ug/L	ND	20	22.8	114	70-130	
n-Propylbenzene	ug/L	ND	20	23.6	118	70-130	
Naphthalene	ug/L	ND	20	17.6	88	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

MATRIX SPIKE SAMPLE: 1573737

Parameter	Units	92270034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	20.5	102	70-130	
p-Isopropyltoluene	ug/L	ND	20	23.2	116	70-130	
sec-Butylbenzene	ug/L	ND	20	24.5	122	70-130	
Styrene	ug/L	ND	20	20.8	104	70-130	
tert-Butylbenzene	ug/L	ND	20	19.4	97	70-130	
Tetrachloroethene	ug/L	ND	20	20.5	103	70-130	
Toluene	ug/L	ND	20	21.9	110	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	22.8	114	70-130	
Trichloroethene	ug/L	ND	20	20.6	103	69-151	
Trichlorofluoromethane	ug/L	ND	20	22.2	111	70-130	
Vinyl chloride	ug/L	ND	20	25.2	126	70-130	
1,2-Dichloroethane-d4 (S)	%				96	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1573738

Parameter	Units	92269988002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	34.1	34.6	1	30	
1,1-Dichloroethene	ug/L	35.3	38.8	9	30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

SAMPLE DUPLICATE: 1573738

Parameter	Units	92269988002 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	1550	1620	4	30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	2430	2530	4	30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	15.1J		30	
Trichloroethene	ug/L	228	228	0	30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	111	2		
4-Bromofluorobenzene (S)	%	105	103	2		
Toluene-d8 (S)	%	99	100	1		

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QUALIFIERS

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TK LOUISVILLE 6122 09 0322
Pace Project No.: 92270034

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92270034001	**MW-22**	EPA 8260	MSV/33642		
92270034002	**TRIP**	EPA 8260	MSV/33629		

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Pace Analytical	Sample Condition Upon Receipt (SCUR)	Page 1 of 2*
	Document Number: F-CHR-CS-003-rev.16	Issuing Authority: Pace Huntersville Quality Office

Client Name: AMEC

* Page 2 of 2 is for Internal Use Only

Courier: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun T1402 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor T1402 No Correction

Corrected Cooler Temp.: 4.0 °C Biological Tissue is Frozen: Yes No (N/A)

Date and Initials of person examining contents: 10-1 JJ

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: JJ Date: 10/1/15

SRF Review: JJ Date: 10/2/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO# : 92270034

92270034

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

2003297

Section A Required Client Information:

Company: AMEC FW
Address: 1075 BIG SHANTY RD #100
KENNESAW, GA 30144
Email To: RHONDA.QUINN@AMEC.COM
Phone: 7704213400 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Ms. RHONDA QUINN
Copy To:
Purchase Order No.:
Project Name: TK LOUISVILLE
Project Number: 6122 09 0322

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 6445-1

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GEORGIA

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Analysis Test: 8260B *	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-22	WT	G	9-30-15	1600				3				X						X		92270034 001
2	TRIP	WT	G						2				X						X		002
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* SITE SPECIFIC VOCs	AMEC FW				10-1	930	6.0	y	n	y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: EVER GUILLEN

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 9-30-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 28, 2015

Rhonda Quinn
Amec Foster Wheeler
1075 Big Shanty Rd
Suite 100
Kennesaw, GA 30144

RE: Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Dear Rhonda Quinn:
Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Greg Wrenn, Amec Foster Wheeler

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CERTIFICATIONS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280507001	**MW-27-121515**	Water	12/15/15 12:14	12/18/15 10:30
92280507002	**MW-28-121515**	Water	12/15/15 12:43	12/18/15 10:30
92280507003	**MW-20-121515**	Water	12/15/15 17:35	12/18/15 10:30
92280507004	**MW-25-121615**	Water	12/16/15 11:52	12/18/15 10:30
92280507005	**MW-19-121615**	Water	12/16/15 11:50	12/18/15 10:30
92280507006	**MW-14-121615**	Water	12/16/15 14:20	12/18/15 10:30
92280507007	**MW-5-121615**	Water	12/16/15 16:00	12/18/15 10:30
92280507008	**DUP-01-121615**	Water	12/16/15 12:00	12/18/15 10:30
92280507009	**MW-22-121515**	Water	12/15/15 11:07	12/18/15 10:30
92280507010	**MASON BRANCH#2-121515**	Water	12/15/15 13:50	12/18/15 10:30
92280507011	**SEEP-H-121515**	Water	12/15/15 14:05	12/18/15 10:30
92280507012	**SEEP-G-121515**	Water	12/15/15 14:20	12/18/15 10:30
92280507013	**SEEP#2-121515**	Water	12/15/15 14:35	12/18/15 10:30
92280507014	**SEEP-B-121515**	Water	12/15/15 14:50	12/18/15 10:30
92280507015	**MW-10-121515**	Water	12/15/15 11:48	12/18/15 10:30
92280507016	**MW-3-121515**	Water	12/15/15 14:30	12/18/15 10:30
92280507017	**SEEP-L-121615**	Water	12/16/15 12:30	12/18/15 10:30
92280507018	**MB#5-121515**	Water	12/16/15 12:55	12/18/15 10:30
92280507019	**MB#16-121615**	Water	12/16/15 13:07	12/18/15 10:30
92280507020	**SEEP-I-121615**	Water	12/16/15 13:20	12/18/15 10:30
92280507021	**MB#3-121615**	Water	12/16/15 13:56	12/18/15 10:30
92280507022	**MB#15-121615**	Water	12/16/15 14:10	12/18/15 10:30
92280507023	**DRUM COMPOSITE-121615**	Water	12/16/15 16:10	12/18/15 10:30
92280507024	**TRIP BLANK**	Water	12/15/15 00:00	12/18/15 10:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280507001	**MW-27-121515**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507002	**MW-28-121515**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507003	**MW-20-121515**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507004	**MW-25-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507005	**MW-19-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507006	**MW-14-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507007	**MW-5-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507008	**DUP-01-121615**	EPA 8260	NB	59	PASI-C
		EPA 8260B Mod.	DLK	3	PASI-C
92280507009	**MW-22-121515**	EPA 8260	NB	60	PASI-C
92280507010	**MASON BRANCH#2-121515**	EPA 8260	NB	60	PASI-C
92280507011	**SEEP-H-121515**	EPA 8260	NB	60	PASI-C
92280507012	**SEEP-G-121515**	EPA 8260	NB	60	PASI-C
92280507013	**SEEP#2-121515**	EPA 8260	NB	60	PASI-C
92280507014	**SEEP-B-121515**	EPA 8260	NB	60	PASI-C
92280507015	**MW-10-121515**	EPA 8260	NB	60	PASI-C
92280507016	**MW-3-121515**	EPA 8260	NB	60	PASI-C
92280507017	**SEEP-L-121615**	EPA 8260	NB	60	PASI-C
92280507018	**MB#5-121515**	EPA 8260	NB	60	PASI-C
92280507019	**MB#16-121615**	EPA 8260	NB	60	PASI-C
92280507020	**SEEP-I-121615**	EPA 8260	NB	60	PASI-C
92280507021	**MB#3-121615**	EPA 8260	NB	60	PASI-C
92280507022	**MB#15-121615**	EPA 8260	NB	60	PASI-C
92280507023	**DRUM COMPOSITE-121615**	EPA 8260	NB	60	PASI-C
92280507024	**TRIP BLANK**	EPA 8260	NB	60	PASI-C

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SUMMARY OF DETECTION

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92280507001	**MW-27-121515**					
EPA 8260	1,1-Dichloroethene	2.5	ug/L	1.0	12/22/15 19:19	
EPA 8260	cis-1,2-Dichloroethene	26.6	ug/L	1.0	12/22/15 19:19	
EPA 8260	Trichloroethene	8.2	ug/L	1.0	12/22/15 19:19	
92280507002	**MW-28-121515**					
EPA 8260	1,1-Dichloroethene	3.1	ug/L	1.0	12/22/15 18:45	
EPA 8260	cis-1,2-Dichloroethene	26.6	ug/L	1.0	12/22/15 18:45	
EPA 8260	Trichloroethene	6.3	ug/L	1.0	12/22/15 18:45	
EPA 8260	Vinyl chloride	0.94J	ug/L	1.0	12/22/15 18:45	
92280507003	**MW-20-121515**					
EPA 8260	1,1-Dichloroethene	6.4	ug/L	4.0	12/23/15 07:17	
EPA 8260	cis-1,2-Dichloroethene	414	ug/L	4.0	12/23/15 07:17	
EPA 8260	Vinyl chloride	5.0	ug/L	4.0	12/23/15 07:17	
92280507004	**MW-25-121615**					
EPA 8260	1,1-Dichloroethene	27.0	ug/L	25.0	12/23/15 07:35	
EPA 8260	cis-1,2-Dichloroethene	798	ug/L	25.0	12/23/15 07:35	
EPA 8260	Trichloroethene	3670	ug/L	25.0	12/23/15 07:35	
92280507005	**MW-19-121615**					
EPA 8260	cis-1,2-Dichloroethene	8.0J	ug/L	20.0	12/23/15 07:52	
EPA 8260	Trichloroethene	1720	ug/L	20.0	12/23/15 07:52	
92280507006	**MW-14-121615**					
EPA 8260	1,1-Dichloroethene	45.4	ug/L	20.0	12/23/15 08:09	
EPA 8260	cis-1,2-Dichloroethene	249	ug/L	20.0	12/23/15 08:09	
EPA 8260	Trichloroethene	1940	ug/L	20.0	12/23/15 08:09	
92280507007	**MW-5-121615**					
EPA 8260	Chloroform	2.6	ug/L	2.0	12/24/15 08:21	
EPA 8260	1,1-Dichloroethene	1.6J	ug/L	2.0	12/24/15 08:21	
EPA 8260	cis-1,2-Dichloroethene	1.9J	ug/L	2.0	12/24/15 08:21	
EPA 8260	Hexachloro-1,3-butadiene	4.8	ug/L	2.0	12/24/15 08:21	
EPA 8260	1,1,1,2-Tetrachloroethane	1.3J	ug/L	2.0	12/24/15 08:21	
EPA 8260	Tetrachloroethene	1.3J	ug/L	2.0	12/24/15 08:21	
EPA 8260	Trichloroethene	237	ug/L	2.0	12/24/15 08:21	
92280507008	**DUP-01-121615**					
EPA 8260	Chloroform	2.7	ug/L	2.0	12/24/15 08:55	
EPA 8260	1,1-Dichloroethene	1.9J	ug/L	2.0	12/24/15 08:55	
EPA 8260	cis-1,2-Dichloroethene	1.8J	ug/L	2.0	12/24/15 08:55	
EPA 8260	Hexachloro-1,3-butadiene	4.5	ug/L	2.0	12/24/15 08:55	
EPA 8260	1,1,1,2-Tetrachloroethane	1.7J	ug/L	2.0	12/24/15 08:55	
EPA 8260	Tetrachloroethene	1.2J	ug/L	2.0	12/24/15 08:55	
EPA 8260	Trichloroethene	256	ug/L	2.0	12/24/15 08:55	
92280507010	**MASON BRANCH#2-121515**					
EPA 8260	Chloroethane	0.68J	ug/L	1.0	12/22/15 19:36	
EPA 8260	1,1-Dichloroethane	3.1	ug/L	1.0	12/22/15 19:36	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92280507010	**MASON BRANCH#2-121515**					
EPA 8260	1,2-Dichloroethane	0.69J	ug/L	1.0	12/22/15 19:36	
EPA 8260	cis-1,2-Dichloroethene	6.8	ug/L	1.0	12/22/15 19:36	
EPA 8260	Vinyl chloride	30.6	ug/L	1.0	12/22/15 19:36	
92280507011	**SEEP-H-121515**					
EPA 8260	Chloroform	1.5	ug/L	1.0	12/22/15 18:28	
EPA 8260	1,1-Dichloroethane	0.39J	ug/L	1.0	12/22/15 18:28	
EPA 8260	1,1-Dichloroethene	30.7	ug/L	1.0	12/22/15 18:28	
EPA 8260	cis-1,2-Dichloroethene	40.1	ug/L	1.0	12/22/15 18:28	
EPA 8260	1,1,1-Trichloroethane	3.1	ug/L	1.0	12/22/15 18:28	
EPA 8260	Trichloroethene	275	ug/L	2.5	12/23/15 12:08	
92280507012	**SEEP-G-121515**					
EPA 8260	1,1-Dichloroethene	1.2	ug/L	1.0	12/23/15 20:40	
EPA 8260	cis-1,2-Dichloroethene	11.0	ug/L	1.0	12/23/15 20:40	
EPA 8260	Trichloroethene	0.86J	ug/L	1.0	12/23/15 20:40	
92280507013	**SEEP#2-121515**					
EPA 8260	1,1-Dichloroethene	1.0	ug/L	1.0	12/23/15 20:23	
EPA 8260	cis-1,2-Dichloroethene	8.1	ug/L	1.0	12/23/15 20:23	
EPA 8260	Trichloroethene	6.9	ug/L	1.0	12/23/15 20:23	
92280507014	**SEEP-B-121515**					
EPA 8260	cis-1,2-Dichloroethene	7.9	ug/L	1.0	12/22/15 17:36	
EPA 8260	Toluene	1.7	ug/L	1.0	12/22/15 17:36	
EPA 8260	Trichloroethene	1.5	ug/L	1.0	12/22/15 17:36	
EPA 8260	Vinyl chloride	0.74J	ug/L	1.0	12/22/15 17:36	
92280507015	**MW-10-121515**					
EPA 8260	Chloroform	1.3	ug/L	1.0	12/22/15 17:19	
EPA 8260	Trichloroethene	1.7	ug/L	1.0	12/22/15 17:19	
92280507016	**MW-3-121515**					
EPA 8260	Chloroform	3.9	ug/L	1.0	12/22/15 17:02	
92280507017	**SEEP-L-121615**					
EPA 8260	cis-1,2-Dichloroethene	0.55J	ug/L	1.0	12/22/15 16:45	
92280507020	**SEEP-I-121615**					
EPA 8260	cis-1,2-Dichloroethene	1.1	ug/L	1.0	12/22/15 15:55	
EPA 8260	Tetrachloroethene	0.55J	ug/L	1.0	12/22/15 15:55	
92280507023	**DRUM COMPOSITE-121615**					
EPA 8260	Chloroform	0.72J	ug/L	2.0	12/24/15 08:38	
EPA 8260	1,1-Dichloroethene	7.1	ug/L	2.0	12/24/15 08:38	
EPA 8260	cis-1,2-Dichloroethene	155	ug/L	2.0	12/24/15 08:38	
EPA 8260	Trichloroethene	779	ug/L	10.0	12/24/15 14:26	
EPA 8260	Vinyl chloride	3.6	ug/L	2.0	12/24/15 08:38	

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PROJECT NARRATIVE

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: December 28, 2015

General Information:
24 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/34862

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1635248)
  - Hexachloro-1,3-butadiene

QC Batch: MSV/34886

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1635814)
  - 1,4-Dioxane (p-Dioxane)
  - Hexachloro-1,3-butadiene

QC Batch: MSV/34891

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1635841)
  - Hexachloro-1,3-butadiene

QC Batch: MSV/34901

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1636343)
  - Hexachloro-1,3-butadiene

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PROJECT NARRATIVE

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Georgia
Date: December 28, 2015

QC Batch: MSV/34912

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 1636740)
  - 1,4-Dioxane (p-Dioxane)

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/34862

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280507022

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- MS (Lab ID: 1635249)
  - Hexachloro-1,3-butadiene

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1635249)
  - 1,1-Dichloropropene
  - Bromomethane
  - Carbon tetrachloride

QC Batch: MSV/34886

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280507011

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- MS (Lab ID: 1635815)
  - Hexachloro-1,3-butadiene

QC Batch: MSV/34901

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280540008

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1636344)
  - 1,1,1-Trichloroethane
  - 1,1-Dichloropropene
  - Bromomethane
  - Carbon tetrachloride

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM
Client: Amec Foster Wheeler, Georgia
Date: December 28, 2015

General Information:
8 samples were analyzed for EPA 8260B Mod.. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-27-121515 **Lab ID: 92280507001** Collected: 12/15/15 12:14 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 19:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 19:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 19:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 19:19	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 19:19	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 19:19	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 19:19	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 19:19	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 19:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 19:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 19:19	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 19:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 19:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 19:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 19:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 19:19	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 19:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 19:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 19:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 19:19	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 19:19	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 19:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 19:19	107-06-2	
1,1-Dichloroethene	**2.5**	ug/L	1.0	0.56	1		12/22/15 19:19	75-35-4	
cis-1,2-Dichloroethene	**26.6**	ug/L	1.0	0.19	1		12/22/15 19:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 19:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 19:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 19:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 19:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 19:19	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 19:19	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 19:19	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 19:19	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 19:19	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 19:19	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 19:19	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 19:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 19:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 19:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 19:19	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 19:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 19:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 19:19	120-82-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-27-121515 **Lab ID: 92280507001** Collected: 12/15/15 12:14 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 19:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 19:19	79-00-5	
Trichloroethene	**8.2**	ug/L	1.0	0.47	1		12/22/15 19:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 19:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 19:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 19:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 19:19	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 19:19	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 19:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 19:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 19:19	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		12/22/15 19:19	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 19:19	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 14:55	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	103	%	50-150		1		12/20/15 14:55	17060-07-0	
Toluene-d8 (S)	97	%	50-150		1		12/20/15 14:55	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-28-121515 **Lab ID: 92280507002** Collected: 12/15/15 12:43 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 18:45	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:45	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 18:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 18:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 18:45	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 18:45	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 18:45	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 18:45	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 18:45	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 18:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 18:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 18:45	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 18:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 18:45	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 18:45	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 18:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 18:45	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 18:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 18:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 18:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 18:45	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 18:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 18:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 18:45	107-06-2	
1,1-Dichloroethene	**3.1**	ug/L	1.0	0.56	1		12/22/15 18:45	75-35-4	
cis-1,2-Dichloroethene	**26.6**	ug/L	1.0	0.19	1		12/22/15 18:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 18:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 18:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 18:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 18:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 18:45	563-58-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 18:45	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 18:45	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 18:45	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 18:45	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 18:45	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 18:45	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 18:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 18:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 18:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 18:45	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 18:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 18:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 18:45	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-28-121515 **Lab ID: 92280507002** Collected: 12/15/15 12:43 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 18:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 18:45	79-00-5	
Trichloroethene	**6.3**	ug/L	1.0	0.47	1		12/22/15 18:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 18:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 18:45	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 18:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 18:45	108-67-8	
Vinyl chloride	**0.94J**	ug/L	1.0	0.62	1		12/22/15 18:45	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 18:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 18:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		12/22/15 18:45	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		12/22/15 18:45	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 18:45	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 15:15	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%	50-150		1		12/20/15 15:15	17060-07-0	
Toluene-d8 (S)	94	%	50-150		1		12/20/15 15:15	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-20-121515 **Lab ID: 92280507003** Collected: 12/15/15 17:35 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	4.0	1.0	4		12/23/15 07:17	71-43-2	
Bromobenzene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	108-86-1	
Bromochloromethane	ND	ug/L	4.0	0.68	4		12/23/15 07:17	74-97-5	
Bromodichloromethane	ND	ug/L	4.0	0.72	4		12/23/15 07:17	75-27-4	
Bromoform	ND	ug/L	4.0	1.0	4		12/23/15 07:17	75-25-2	
Bromomethane	ND	ug/L	8.0	1.2	4		12/23/15 07:17	74-83-9	
n-Butylbenzene	ND	ug/L	4.0	1.6	4		12/23/15 07:17	104-51-8	
sec-Butylbenzene	ND	ug/L	4.0	1.5	4		12/23/15 07:17	135-98-8	
tert-Butylbenzene	ND	ug/L	4.0	1.6	4		12/23/15 07:17	98-06-6	
Carbon tetrachloride	ND	ug/L	4.0	1.0	4		12/23/15 07:17	56-23-5	
Chlorobenzene	ND	ug/L	4.0	0.92	4		12/23/15 07:17	108-90-7	
Chloroethane	ND	ug/L	4.0	2.2	4		12/23/15 07:17	75-00-3	
Chloroform	ND	ug/L	4.0	0.56	4		12/23/15 07:17	67-66-3	
Chloromethane	ND	ug/L	4.0	0.44	4		12/23/15 07:17	74-87-3	
2-Chlorotoluene	ND	ug/L	4.0	1.4	4		12/23/15 07:17	95-49-8	
4-Chlorotoluene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	8.0	8.0	4		12/23/15 07:17	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	4.0	1.1	4		12/23/15 07:17	106-93-4	
Dibromomethane	ND	ug/L	4.0	0.84	4		12/23/15 07:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	4.0	0.96	4		12/23/15 07:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	4.0	1.3	4		12/23/15 07:17	106-46-7	
Dichlorodifluoromethane	ND	ug/L	4.0	0.84	4		12/23/15 07:17	75-71-8	
1,1-Dichloroethane	ND	ug/L	4.0	1.3	4		12/23/15 07:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	4.0	0.96	4		12/23/15 07:17	107-06-2	
1,1-Dichloroethene	**6.4**	ug/L	4.0	2.2	4		12/23/15 07:17	75-35-4	
cis-1,2-Dichloroethene	**414**	ug/L	4.0	0.76	4		12/23/15 07:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	4.0	2.0	4		12/23/15 07:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	4.0	1.1	4		12/23/15 07:17	78-87-5	
1,3-Dichloropropane	ND	ug/L	4.0	1.1	4		12/23/15 07:17	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	0.52	4		12/23/15 07:17	594-20-7	
1,1-Dichloropropene	ND	ug/L	4.0	2.0	4		12/23/15 07:17	563-58-6	
Ethylbenzene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	4.0	2.8	4		12/23/15 07:17	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1.6	4		12/23/15 07:17	98-82-8	
p-Isopropyltoluene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	99-87-6	
Methylene Chloride	ND	ug/L	8.0	3.9	4		12/23/15 07:17	75-09-2	
Naphthalene	ND	ug/L	4.0	0.96	4		12/23/15 07:17	91-20-3	
n-Propylbenzene	ND	ug/L	4.0	1.7	4		12/23/15 07:17	103-65-1	
Styrene	ND	ug/L	4.0	1.0	4		12/23/15 07:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	4.0	1.3	4		12/23/15 07:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	4.0	1.6	4		12/23/15 07:17	79-34-5	
Tetrachloroethene	ND	ug/L	4.0	1.8	4		12/23/15 07:17	127-18-4	
Toluene	ND	ug/L	4.0	1.0	4		12/23/15 07:17	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	4.0	1.3	4		12/23/15 07:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	4.0	1.4	4		12/23/15 07:17	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-20-121515 **Lab ID: 92280507003** Collected: 12/15/15 17:35 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	4.0	1.9	4		12/23/15 07:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1.2	4		12/23/15 07:17	79-00-5	
Trichloroethene	ND	ug/L	4.0	1.9	4		12/23/15 07:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	4.0	0.80	4		12/23/15 07:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1.6	4		12/23/15 07:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	4.0	1.2	4		12/23/15 07:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	4.0	1.4	4		12/23/15 07:17	108-67-8	
Vinyl chloride	**5.0**	ug/L	4.0	2.5	4		12/23/15 07:17	75-01-4	
m&p-Xylene	ND	ug/L	8.0	2.6	4		12/23/15 07:17	179601-23-1	
o-Xylene	ND	ug/L	4.0	0.92	4		12/23/15 07:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		4		12/23/15 07:17	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		4		12/23/15 07:17	17060-07-0	
Toluene-d8 (S)	101	%	70-130		4		12/23/15 07:17	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 15:35	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	107	%	50-150		1		12/20/15 15:35	17060-07-0	
Toluene-d8 (S)	95	%	50-150		1		12/20/15 15:35	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-25-121615 **Lab ID: 92280507004** Collected: 12/16/15 11:52 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	25.0	6.2	25		12/23/15 07:35	71-43-2	
Bromobenzene	ND	ug/L	25.0	7.5	25		12/23/15 07:35	108-86-1	
Bromochloromethane	ND	ug/L	25.0	4.2	25		12/23/15 07:35	74-97-5	
Bromodichloromethane	ND	ug/L	25.0	4.5	25		12/23/15 07:35	75-27-4	
Bromoform	ND	ug/L	25.0	6.5	25		12/23/15 07:35	75-25-2	
Bromomethane	ND	ug/L	50.0	7.2	25		12/23/15 07:35	74-83-9	
n-Butylbenzene	ND	ug/L	25.0	10.2	25		12/23/15 07:35	104-51-8	
sec-Butylbenzene	ND	ug/L	25.0	9.5	25		12/23/15 07:35	135-98-8	
tert-Butylbenzene	ND	ug/L	25.0	10.0	25		12/23/15 07:35	98-06-6	
Carbon tetrachloride	ND	ug/L	25.0	6.2	25		12/23/15 07:35	56-23-5	
Chlorobenzene	ND	ug/L	25.0	5.8	25		12/23/15 07:35	108-90-7	
Chloroethane	ND	ug/L	25.0	13.5	25		12/23/15 07:35	75-00-3	
Chloroform	ND	ug/L	25.0	3.5	25		12/23/15 07:35	67-66-3	
Chloromethane	ND	ug/L	25.0	2.8	25		12/23/15 07:35	74-87-3	
2-Chlorotoluene	ND	ug/L	25.0	8.8	25		12/23/15 07:35	95-49-8	
4-Chlorotoluene	ND	ug/L	25.0	7.8	25		12/23/15 07:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	50.0	50.0	25		12/23/15 07:35	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	25.0	6.8	25		12/23/15 07:35	106-93-4	
Dibromomethane	ND	ug/L	25.0	5.2	25		12/23/15 07:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	25.0	7.5	25		12/23/15 07:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	25.0	6.0	25		12/23/15 07:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	25.0	8.2	25		12/23/15 07:35	106-46-7	
Dichlorodifluoromethane	ND	ug/L	25.0	5.2	25		12/23/15 07:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	25.0	8.0	25		12/23/15 07:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	25.0	6.0	25		12/23/15 07:35	107-06-2	
1,1-Dichloroethene	**27.0**	ug/L	25.0	14.0	25		12/23/15 07:35	75-35-4	
cis-1,2-Dichloroethene	**798**	ug/L	25.0	4.8	25		12/23/15 07:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	25.0	12.2	25		12/23/15 07:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	25.0	6.8	25		12/23/15 07:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	25.0	7.0	25		12/23/15 07:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	25.0	3.2	25		12/23/15 07:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	25.0	12.2	25		12/23/15 07:35	563-58-6	
Ethylbenzene	ND	ug/L	25.0	7.5	25		12/23/15 07:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	25.0	17.8	25		12/23/15 07:35	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	25.0	10.0	25		12/23/15 07:35	98-82-8	
p-Isopropyltoluene	ND	ug/L	25.0	7.8	25		12/23/15 07:35	99-87-6	
Methylene Chloride	ND	ug/L	50.0	24.2	25		12/23/15 07:35	75-09-2	
Naphthalene	ND	ug/L	25.0	6.0	25		12/23/15 07:35	91-20-3	
n-Propylbenzene	ND	ug/L	25.0	10.5	25		12/23/15 07:35	103-65-1	
Styrene	ND	ug/L	25.0	6.5	25		12/23/15 07:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	25.0	8.2	25		12/23/15 07:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	25.0	10.0	25		12/23/15 07:35	79-34-5	
Tetrachloroethene	ND	ug/L	25.0	11.5	25		12/23/15 07:35	127-18-4	
Toluene	ND	ug/L	25.0	6.5	25		12/23/15 07:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	25.0	8.2	25		12/23/15 07:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	25.0	8.8	25		12/23/15 07:35	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-25-121615 **Lab ID: 92280507004** Collected: 12/16/15 11:52 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	25.0	12.0	25		12/23/15 07:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	25.0	7.2	25		12/23/15 07:35	79-00-5	
Trichloroethene	**3670**	ug/L	25.0	11.8	25		12/23/15 07:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	25.0	5.0	25		12/23/15 07:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	25.0	10.2	25		12/23/15 07:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	25.0	7.8	25		12/23/15 07:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	25.0	9.0	25		12/23/15 07:35	108-67-8	
Vinyl chloride	ND	ug/L	25.0	15.5	25		12/23/15 07:35	75-01-4	
m&p-Xylene	ND	ug/L	50.0	16.5	25		12/23/15 07:35	179601-23-1	
o-Xylene	ND	ug/L	25.0	5.8	25		12/23/15 07:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		25		12/23/15 07:35	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		25		12/23/15 07:35	17060-07-0	
Toluene-d8 (S)	99	%	70-130		25		12/23/15 07:35	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 15:56	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	109	%	50-150		1		12/20/15 15:56	17060-07-0	
Toluene-d8 (S)	96	%	50-150		1		12/20/15 15:56	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-19-121615 **Lab ID: 92280507005** Collected: 12/16/15 11:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	20.0	5.0	20		12/23/15 07:52	71-43-2	
Bromobenzene	ND	ug/L	20.0	6.0	20		12/23/15 07:52	108-86-1	
Bromochloromethane	ND	ug/L	20.0	3.4	20		12/23/15 07:52	74-97-5	
Bromodichloromethane	ND	ug/L	20.0	3.6	20		12/23/15 07:52	75-27-4	
Bromoform	ND	ug/L	20.0	5.2	20		12/23/15 07:52	75-25-2	
Bromomethane	ND	ug/L	40.0	5.8	20		12/23/15 07:52	74-83-9	
n-Butylbenzene	ND	ug/L	20.0	8.2	20		12/23/15 07:52	104-51-8	
sec-Butylbenzene	ND	ug/L	20.0	7.6	20		12/23/15 07:52	135-98-8	
tert-Butylbenzene	ND	ug/L	20.0	8.0	20		12/23/15 07:52	98-06-6	
Carbon tetrachloride	ND	ug/L	20.0	5.0	20		12/23/15 07:52	56-23-5	
Chlorobenzene	ND	ug/L	20.0	4.6	20		12/23/15 07:52	108-90-7	
Chloroethane	ND	ug/L	20.0	10.8	20		12/23/15 07:52	75-00-3	
Chloroform	ND	ug/L	20.0	2.8	20		12/23/15 07:52	67-66-3	
Chloromethane	ND	ug/L	20.0	2.2	20		12/23/15 07:52	74-87-3	
2-Chlorotoluene	ND	ug/L	20.0	7.0	20		12/23/15 07:52	95-49-8	
4-Chlorotoluene	ND	ug/L	20.0	6.2	20		12/23/15 07:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	40.0	40.0	20		12/23/15 07:52	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	20.0	5.4	20		12/23/15 07:52	106-93-4	
Dibromomethane	ND	ug/L	20.0	4.2	20		12/23/15 07:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	20.0	6.0	20		12/23/15 07:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	20.0	4.8	20		12/23/15 07:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	20.0	6.6	20		12/23/15 07:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	20.0	4.2	20		12/23/15 07:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	20.0	6.4	20		12/23/15 07:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	20.0	4.8	20		12/23/15 07:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	20.0	11.2	20		12/23/15 07:52	75-35-4	
cis-1,2-Dichloroethene	**8.0J**	ug/L	20.0	3.8	20		12/23/15 07:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	20.0	9.8	20		12/23/15 07:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	20.0	5.4	20		12/23/15 07:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	20.0	5.6	20		12/23/15 07:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	20.0	2.6	20		12/23/15 07:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	20.0	9.8	20		12/23/15 07:52	563-58-6	
Ethylbenzene	ND	ug/L	20.0	6.0	20		12/23/15 07:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	20.0	14.2	20		12/23/15 07:52	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	20.0	8.0	20		12/23/15 07:52	98-82-8	
p-Isopropyltoluene	ND	ug/L	20.0	6.2	20		12/23/15 07:52	99-87-6	
Methylene Chloride	ND	ug/L	40.0	19.4	20		12/23/15 07:52	75-09-2	
Naphthalene	ND	ug/L	20.0	4.8	20		12/23/15 07:52	91-20-3	
n-Propylbenzene	ND	ug/L	20.0	8.4	20		12/23/15 07:52	103-65-1	
Styrene	ND	ug/L	20.0	5.2	20		12/23/15 07:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	20.0	6.6	20		12/23/15 07:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	20.0	8.0	20		12/23/15 07:52	79-34-5	
Tetrachloroethene	ND	ug/L	20.0	9.2	20		12/23/15 07:52	127-18-4	
Toluene	ND	ug/L	20.0	5.2	20		12/23/15 07:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	20.0	6.6	20		12/23/15 07:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	20.0	7.0	20		12/23/15 07:52	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-19-121615 **Lab ID: 92280507005** Collected: 12/16/15 11:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	20.0	9.6	20		12/23/15 07:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	20.0	5.8	20		12/23/15 07:52	79-00-5	
Trichloroethene	**1720**	ug/L	20.0	9.4	20		12/23/15 07:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	20.0	4.0	20		12/23/15 07:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	20.0	8.2	20		12/23/15 07:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	20.0	6.2	20		12/23/15 07:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	20.0	7.2	20		12/23/15 07:52	108-67-8	
Vinyl chloride	ND	ug/L	20.0	12.4	20		12/23/15 07:52	75-01-4	
m&p-Xylene	ND	ug/L	40.0	13.2	20		12/23/15 07:52	179601-23-1	
o-Xylene	ND	ug/L	20.0	4.6	20		12/23/15 07:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		20		12/23/15 07:52	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		20		12/23/15 07:52	17060-07-0	
Toluene-d8 (S)	100	%	70-130		20		12/23/15 07:52	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 16:36	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	106	%	50-150		1		12/20/15 16:36	17060-07-0	
Toluene-d8 (S)	96	%	50-150		1		12/20/15 16:36	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-14-121615 **Lab ID: 92280507006** Collected: 12/16/15 14:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	20.0	5.0	20		12/23/15 08:09	71-43-2	
Bromobenzene	ND	ug/L	20.0	6.0	20		12/23/15 08:09	108-86-1	
Bromochloromethane	ND	ug/L	20.0	3.4	20		12/23/15 08:09	74-97-5	
Bromodichloromethane	ND	ug/L	20.0	3.6	20		12/23/15 08:09	75-27-4	
Bromoform	ND	ug/L	20.0	5.2	20		12/23/15 08:09	75-25-2	
Bromomethane	ND	ug/L	40.0	5.8	20		12/23/15 08:09	74-83-9	
n-Butylbenzene	ND	ug/L	20.0	8.2	20		12/23/15 08:09	104-51-8	
sec-Butylbenzene	ND	ug/L	20.0	7.6	20		12/23/15 08:09	135-98-8	
tert-Butylbenzene	ND	ug/L	20.0	8.0	20		12/23/15 08:09	98-06-6	
Carbon tetrachloride	ND	ug/L	20.0	5.0	20		12/23/15 08:09	56-23-5	
Chlorobenzene	ND	ug/L	20.0	4.6	20		12/23/15 08:09	108-90-7	
Chloroethane	ND	ug/L	20.0	10.8	20		12/23/15 08:09	75-00-3	
Chloroform	ND	ug/L	20.0	2.8	20		12/23/15 08:09	67-66-3	
Chloromethane	ND	ug/L	20.0	2.2	20		12/23/15 08:09	74-87-3	
2-Chlorotoluene	ND	ug/L	20.0	7.0	20		12/23/15 08:09	95-49-8	
4-Chlorotoluene	ND	ug/L	20.0	6.2	20		12/23/15 08:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	40.0	40.0	20		12/23/15 08:09	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	20.0	5.4	20		12/23/15 08:09	106-93-4	
Dibromomethane	ND	ug/L	20.0	4.2	20		12/23/15 08:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	20.0	6.0	20		12/23/15 08:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	20.0	4.8	20		12/23/15 08:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	20.0	6.6	20		12/23/15 08:09	106-46-7	
Dichlorodifluoromethane	ND	ug/L	20.0	4.2	20		12/23/15 08:09	75-71-8	
1,1-Dichloroethane	ND	ug/L	20.0	6.4	20		12/23/15 08:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	20.0	4.8	20		12/23/15 08:09	107-06-2	
1,1-Dichloroethene	**45.4**	ug/L	20.0	11.2	20		12/23/15 08:09	75-35-4	
cis-1,2-Dichloroethene	**249**	ug/L	20.0	3.8	20		12/23/15 08:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	20.0	9.8	20		12/23/15 08:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	20.0	5.4	20		12/23/15 08:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	20.0	5.6	20		12/23/15 08:09	142-28-9	
2,2-Dichloropropane	ND	ug/L	20.0	2.6	20		12/23/15 08:09	594-20-7	
1,1-Dichloropropene	ND	ug/L	20.0	9.8	20		12/23/15 08:09	563-58-6	
Ethylbenzene	ND	ug/L	20.0	6.0	20		12/23/15 08:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	20.0	14.2	20		12/23/15 08:09	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	20.0	8.0	20		12/23/15 08:09	98-82-8	
p-Isopropyltoluene	ND	ug/L	20.0	6.2	20		12/23/15 08:09	99-87-6	
Methylene Chloride	ND	ug/L	40.0	19.4	20		12/23/15 08:09	75-09-2	
Naphthalene	ND	ug/L	20.0	4.8	20		12/23/15 08:09	91-20-3	
n-Propylbenzene	ND	ug/L	20.0	8.4	20		12/23/15 08:09	103-65-1	
Styrene	ND	ug/L	20.0	5.2	20		12/23/15 08:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	20.0	6.6	20		12/23/15 08:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	20.0	8.0	20		12/23/15 08:09	79-34-5	
Tetrachloroethene	ND	ug/L	20.0	9.2	20		12/23/15 08:09	127-18-4	
Toluene	ND	ug/L	20.0	5.2	20		12/23/15 08:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	20.0	6.6	20		12/23/15 08:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	20.0	7.0	20		12/23/15 08:09	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-14-121615 **Lab ID: 92280507006** Collected: 12/16/15 14:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	20.0	9.6	20		12/23/15 08:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	20.0	5.8	20		12/23/15 08:09	79-00-5	
Trichloroethene	**1940**	ug/L	20.0	9.4	20		12/23/15 08:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	20.0	4.0	20		12/23/15 08:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	20.0	8.2	20		12/23/15 08:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	20.0	6.2	20		12/23/15 08:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	20.0	7.2	20		12/23/15 08:09	108-67-8	
Vinyl chloride	ND	ug/L	20.0	12.4	20		12/23/15 08:09	75-01-4	
m&p-Xylene	ND	ug/L	40.0	13.2	20		12/23/15 08:09	179601-23-1	
o-Xylene	ND	ug/L	20.0	4.6	20		12/23/15 08:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		20		12/23/15 08:09	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		20		12/23/15 08:09	17060-07-0	
Toluene-d8 (S)	99	%	70-130		20		12/23/15 08:09	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 16:56	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%	50-150		1		12/20/15 16:56	17060-07-0	
Toluene-d8 (S)	94	%	50-150		1		12/20/15 16:56	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-5-121615 **Lab ID: 92280507007** Collected: 12/16/15 16:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.0	0.50	2		12/24/15 08:21	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:21	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		12/24/15 08:21	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		12/24/15 08:21	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		12/24/15 08:21	75-25-2	
Bromomethane	ND	ug/L	4.0	0.58	2		12/24/15 08:21	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		12/24/15 08:21	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		12/24/15 08:21	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		12/24/15 08:21	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		12/24/15 08:21	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		12/24/15 08:21	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		12/24/15 08:21	75-00-3	
Chloroform	**2.6**	ug/L	2.0	0.28	2		12/24/15 08:21	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		12/24/15 08:21	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		12/24/15 08:21	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	4.0	2		12/24/15 08:21	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		12/24/15 08:21	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		12/24/15 08:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		12/24/15 08:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:21	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		12/24/15 08:21	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		12/24/15 08:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	0.48	2		12/24/15 08:21	107-06-2	
1,1-Dichloroethene	**1.6J**	ug/L	2.0	1.1	2		12/24/15 08:21	75-35-4	
cis-1,2-Dichloroethene	**1.9J**	ug/L	2.0	0.38	2		12/24/15 08:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		12/24/15 08:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		12/24/15 08:21	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		12/24/15 08:21	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		12/24/15 08:21	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		12/24/15 08:21	563-58-6	
Ethylbenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:21	100-41-4	
Hexachloro-1,3-butadiene	**4.8**	ug/L	2.0	1.4	2		12/24/15 08:21	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		12/24/15 08:21	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:21	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1.9	2		12/24/15 08:21	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		12/24/15 08:21	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		12/24/15 08:21	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		12/24/15 08:21	100-42-5	
1,1,1,2-Tetrachloroethane	**1.3J**	ug/L	2.0	0.66	2		12/24/15 08:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		12/24/15 08:21	79-34-5	
Tetrachloroethene	**1.3J**	ug/L	2.0	0.92	2		12/24/15 08:21	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		12/24/15 08:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		12/24/15 08:21	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-5-121615 **Lab ID: 92280507007** Collected: 12/16/15 16:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	2.0	0.96	2		12/24/15 08:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		12/24/15 08:21	79-00-5	
Trichloroethene	**237**	ug/L	2.0	0.94	2		12/24/15 08:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	0.40	2		12/24/15 08:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		12/24/15 08:21	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		12/24/15 08:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		12/24/15 08:21	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1.2	2		12/24/15 08:21	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		12/24/15 08:21	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		12/24/15 08:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		2		12/24/15 08:21	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		2		12/24/15 08:21	17060-07-0	
Toluene-d8 (S)	99	%	70-130		2		12/24/15 08:21	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 17:17	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	107	%	50-150		1		12/20/15 17:17	17060-07-0	
Toluene-d8 (S)	93	%	50-150		1		12/20/15 17:17	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: DUP-01-121615 **Lab ID: 92280507008** Collected: 12/16/15 12:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.0	0.50	2		12/24/15 08:55	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:55	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		12/24/15 08:55	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		12/24/15 08:55	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		12/24/15 08:55	75-25-2	
Bromomethane	ND	ug/L	4.0	0.58	2		12/24/15 08:55	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		12/24/15 08:55	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		12/24/15 08:55	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		12/24/15 08:55	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		12/24/15 08:55	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		12/24/15 08:55	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		12/24/15 08:55	75-00-3	
Chloroform	**2.7**	ug/L	2.0	0.28	2		12/24/15 08:55	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		12/24/15 08:55	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		12/24/15 08:55	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	4.0	2		12/24/15 08:55	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		12/24/15 08:55	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		12/24/15 08:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		12/24/15 08:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		12/24/15 08:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		12/24/15 08:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	0.48	2		12/24/15 08:55	107-06-2	
1,1-Dichloroethene	**1.9J**	ug/L	2.0	1.1	2		12/24/15 08:55	75-35-4	
cis-1,2-Dichloroethene	**1.8J**	ug/L	2.0	0.38	2		12/24/15 08:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		12/24/15 08:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		12/24/15 08:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		12/24/15 08:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		12/24/15 08:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		12/24/15 08:55	563-58-6	
Ethylbenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:55	100-41-4	
Hexachloro-1,3-butadiene	**4.5**	ug/L	2.0	1.4	2		12/24/15 08:55	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		12/24/15 08:55	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:55	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1.9	2		12/24/15 08:55	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		12/24/15 08:55	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		12/24/15 08:55	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		12/24/15 08:55	100-42-5	
1,1,1,2-Tetrachloroethane	**1.7J**	ug/L	2.0	0.66	2		12/24/15 08:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		12/24/15 08:55	79-34-5	
Tetrachloroethene	**1.2J**	ug/L	2.0	0.92	2		12/24/15 08:55	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		12/24/15 08:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		12/24/15 08:55	120-82-1	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: DUP-01-121615 **Lab ID: 92280507008** Collected: 12/16/15 12:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	ND	ug/L	2.0	0.96	2		12/24/15 08:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		12/24/15 08:55	79-00-5	
Trichloroethene	**256**	ug/L	2.0	0.94	2		12/24/15 08:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	0.40	2		12/24/15 08:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		12/24/15 08:55	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		12/24/15 08:55	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		12/24/15 08:55	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1.2	2		12/24/15 08:55	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		12/24/15 08:55	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		12/24/15 08:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		2		12/24/15 08:55	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		2		12/24/15 08:55	17060-07-0	
Toluene-d8 (S)	99	%	70-130		2		12/24/15 08:55	2037-26-5	
8260 MSV SIM	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1.9	1		12/20/15 17:37	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	107	%	50-150		1		12/20/15 17:37	17060-07-0	
Toluene-d8 (S)	97	%	50-150		1		12/20/15 17:37	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-22-121515 **Lab ID: 92280507009** Collected: 12/15/15 11:07 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 20:10	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 20:10	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 20:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 20:10	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 20:10	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 20:10	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 20:10	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 20:10	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 20:10	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 20:10	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 20:10	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 20:10	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 20:10	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 20:10	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 20:10	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 20:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 20:10	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 20:10	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 20:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 20:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 20:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 20:10	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 20:10	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 20:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 20:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 20:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 20:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 20:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 20:10	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 20:10	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 20:10	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 20:10	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 20:10	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 20:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 20:10	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 20:10	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 20:10	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 20:10	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 20:10	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 20:10	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 20:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 20:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 20:10	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 20:10	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 20:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 20:10	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-22-121515 **Lab ID: 92280507009** Collected: 12/15/15 11:07 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 20:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 20:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 20:10	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 20:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 20:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 20:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 20:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 20:10	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 20:10	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 20:10	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 20:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		12/22/15 20:10	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		12/22/15 20:10	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 20:10	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MASON BRANCH#2-121515 **Lab ID: 92280507010** Collected: 12/15/15 13:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 19:36	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:36	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 19:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 19:36	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 19:36	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 19:36	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 19:36	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 19:36	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 19:36	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 19:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 19:36	108-90-7	
Chloroethane	**0.68J**	ug/L	1.0	0.54	1		12/22/15 19:36	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 19:36	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 19:36	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 19:36	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 19:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 19:36	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 19:36	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 19:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 19:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 19:36	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 19:36	75-71-8	
1,1-Dichloroethane	**3.1**	ug/L	1.0	0.32	1		12/22/15 19:36	75-34-3	
1,2-Dichloroethane	**0.69J**	ug/L	1.0	0.24	1		12/22/15 19:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 19:36	75-35-4	
cis-1,2-Dichloroethene	**6.8**	ug/L	1.0	0.19	1		12/22/15 19:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 19:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 19:36	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 19:36	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 19:36	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 19:36	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 19:36	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 19:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 19:36	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 19:36	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 19:36	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 19:36	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 19:36	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 19:36	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 19:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 19:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 19:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 19:36	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 19:36	108-88-3	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MASON BRANCH#2-121515 **Lab ID: 92280507010** Collected: 12/15/15 13:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 19:36	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 19:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 19:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 19:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 19:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 19:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 19:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 19:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 19:36	108-67-8	
Vinyl chloride	**30.6**	ug/L	1.0	0.62	1		12/22/15 19:36	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 19:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 19:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 19:36	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 19:36	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 19:36	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-H-121515 **Lab ID: 92280507011** Collected: 12/15/15 14:05 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 18:28	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:28	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 18:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 18:28	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 18:28	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 18:28	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 18:28	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 18:28	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 18:28	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 18:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 18:28	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 18:28	75-00-3	
Chloroform	**1.5**	ug/L	1.0	0.14	1		12/22/15 18:28	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 18:28	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 18:28	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 18:28	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 18:28	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 18:28	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 18:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 18:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 18:28	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 18:28	75-71-8	
1,1-Dichloroethane	**0.39J**	ug/L	1.0	0.32	1		12/22/15 18:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 18:28	107-06-2	
1,1-Dichloroethene	**30.7**	ug/L	1.0	0.56	1		12/22/15 18:28	75-35-4	
cis-1,2-Dichloroethene	**40.1**	ug/L	1.0	0.19	1		12/22/15 18:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 18:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 18:28	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 18:28	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 18:28	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 18:28	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 18:28	123-91-1	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 18:28	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 18:28	87-68-3	L3,M0
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 18:28	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 18:28	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 18:28	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 18:28	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 18:28	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 18:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 18:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 18:28	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 18:28	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 18:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 18:28	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-H-121515 **Lab ID: 92280507011** Collected: 12/15/15 14:05 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 18:28	120-82-1	
1,1,1-Trichloroethane	**3.1**	ug/L	1.0	0.48	1		12/22/15 18:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 18:28	79-00-5	
Trichloroethene	**275**	ug/L	2.5	1.2	2.5		12/23/15 12:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 18:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 18:28	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 18:28	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 18:28	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 18:28	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 18:28	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 18:28	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 18:28	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 18:28	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		12/22/15 18:28	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-G-121515 **Lab ID: 92280507012** Collected: 12/15/15 14:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/23/15 20:40	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:40	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/23/15 20:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/23/15 20:40	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/23/15 20:40	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/23/15 20:40	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/23/15 20:40	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/23/15 20:40	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/23/15 20:40	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/23/15 20:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/23/15 20:40	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/23/15 20:40	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/23/15 20:40	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/23/15 20:40	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/23/15 20:40	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/23/15 20:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/23/15 20:40	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/23/15 20:40	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/23/15 20:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/23/15 20:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/23/15 20:40	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/23/15 20:40	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/23/15 20:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/23/15 20:40	107-06-2	
1,1-Dichloroethene	**1.2**	ug/L	1.0	0.56	1		12/23/15 20:40	75-35-4	
cis-1,2-Dichloroethene	**11.0**	ug/L	1.0	0.19	1		12/23/15 20:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/23/15 20:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/23/15 20:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/23/15 20:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/23/15 20:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/23/15 20:40	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/23/15 20:40	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/23/15 20:40	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/23/15 20:40	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/23/15 20:40	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/23/15 20:40	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/23/15 20:40	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/23/15 20:40	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/23/15 20:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/23/15 20:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/23/15 20:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/23/15 20:40	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/23/15 20:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/23/15 20:40	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-G-121515 **Lab ID: 92280507012** Collected: 12/15/15 14:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/23/15 20:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/23/15 20:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/23/15 20:40	79-00-5	
Trichloroethene	**0.86J**	ug/L	1.0	0.47	1		12/23/15 20:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/23/15 20:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/23/15 20:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/23/15 20:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/23/15 20:40	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/23/15 20:40	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/23/15 20:40	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/23/15 20:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		12/23/15 20:40	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		12/23/15 20:40	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/23/15 20:40	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP#2-121515 **Lab ID: 92280507013** Collected: 12/15/15 14:35 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/23/15 20:23	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:23	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/23/15 20:23	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/23/15 20:23	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/23/15 20:23	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/23/15 20:23	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/23/15 20:23	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/23/15 20:23	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/23/15 20:23	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/23/15 20:23	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/23/15 20:23	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/23/15 20:23	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/23/15 20:23	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/23/15 20:23	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/23/15 20:23	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/23/15 20:23	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/23/15 20:23	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/23/15 20:23	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/23/15 20:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/23/15 20:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/23/15 20:23	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/23/15 20:23	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/23/15 20:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/23/15 20:23	107-06-2	
1,1-Dichloroethene	**1.0**	ug/L	1.0	0.56	1		12/23/15 20:23	75-35-4	
cis-1,2-Dichloroethene	**8.1**	ug/L	1.0	0.19	1		12/23/15 20:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/23/15 20:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/23/15 20:23	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/23/15 20:23	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/23/15 20:23	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/23/15 20:23	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/23/15 20:23	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/23/15 20:23	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/23/15 20:23	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/23/15 20:23	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/23/15 20:23	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/23/15 20:23	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/23/15 20:23	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/23/15 20:23	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/23/15 20:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/23/15 20:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/23/15 20:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/23/15 20:23	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/23/15 20:23	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/23/15 20:23	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP#2-121515 **Lab ID: 92280507013** Collected: 12/15/15 14:35 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/23/15 20:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/23/15 20:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/23/15 20:23	79-00-5	
Trichloroethene	**6.9**	ug/L	1.0	0.47	1		12/23/15 20:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/23/15 20:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/23/15 20:23	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/23/15 20:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/23/15 20:23	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/23/15 20:23	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/23/15 20:23	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/23/15 20:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		12/23/15 20:23	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		12/23/15 20:23	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/23/15 20:23	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-B-121515 **Lab ID: 92280507014** Collected: 12/15/15 14:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 17:36	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:36	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 17:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 17:36	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 17:36	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 17:36	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 17:36	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 17:36	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 17:36	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 17:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 17:36	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 17:36	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 17:36	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 17:36	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 17:36	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 17:36	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 17:36	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 17:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 17:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:36	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 17:36	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 17:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 17:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 17:36	75-35-4	
cis-1,2-Dichloroethene	**7.9**	ug/L	1.0	0.19	1		12/22/15 17:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 17:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 17:36	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 17:36	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 17:36	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 17:36	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 17:36	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 17:36	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 17:36	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:36	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 17:36	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 17:36	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 17:36	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 17:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 17:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 17:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 17:36	127-18-4	
Toluene	**1.7**	ug/L	1.0	0.26	1		12/22/15 17:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:36	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-B-121515 **Lab ID: 92280507014** Collected: 12/15/15 14:50 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 17:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 17:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 17:36	79-00-5	
Trichloroethene	**1.5**	ug/L	1.0	0.47	1		12/22/15 17:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 17:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 17:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 17:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 17:36	108-67-8	
Vinyl chloride	**0.74J**	ug/L	1.0	0.62	1		12/22/15 17:36	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 17:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 17:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		12/22/15 17:36	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		12/22/15 17:36	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 17:36	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-10-121515 **Lab ID: 92280507015** Collected: 12/15/15 11:48 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 17:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 17:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 17:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 17:19	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 17:19	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 17:19	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 17:19	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 17:19	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 17:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 17:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 17:19	75-00-3	
Chloroform	**1.3**	ug/L	1.0	0.14	1		12/22/15 17:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 17:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 17:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 17:19	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 17:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 17:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 17:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:19	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 17:19	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 17:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 17:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 17:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 17:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 17:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 17:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 17:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 17:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 17:19	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 17:19	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 17:19	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 17:19	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:19	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 17:19	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 17:19	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 17:19	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 17:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 17:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 17:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 17:19	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 17:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:19	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-10-121515 **Lab ID: 92280507015** Collected: 12/15/15 11:48 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 17:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 17:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 17:19	79-00-5	
Trichloroethene	**1.7**	ug/L	1.0	0.47	1		12/22/15 17:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 17:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 17:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 17:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 17:19	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 17:19	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 17:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 17:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		12/22/15 17:19	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		12/22/15 17:19	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 17:19	2037-26-5	

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(704)875-9092

ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-3-121515 **Lab ID: 92280507016** Collected: 12/15/15 14:30 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 17:02	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:02	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 17:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 17:02	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 17:02	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 17:02	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 17:02	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 17:02	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 17:02	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 17:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 17:02	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 17:02	75-00-3	
Chloroform	**3.9**	ug/L	1.0	0.14	1		12/22/15 17:02	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 17:02	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 17:02	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:02	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 17:02	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 17:02	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 17:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 17:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:02	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 17:02	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 17:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 17:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 17:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 17:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 17:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 17:02	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 17:02	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 17:02	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 17:02	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 17:02	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 17:02	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 17:02	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 17:02	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 17:02	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 17:02	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 17:02	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 17:02	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 17:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 17:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 17:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 17:02	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 17:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 17:02	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MW-3-121515 **Lab ID: 92280507016** Collected: 12/15/15 14:30 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 17:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 17:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 17:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 17:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 17:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 17:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 17:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 17:02	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 17:02	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 17:02	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 17:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 17:02	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		12/22/15 17:02	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 17:02	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-L-121615 **Lab ID: 92280507017** Collected: 12/16/15 12:30 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 16:45	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:45	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 16:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 16:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 16:45	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 16:45	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 16:45	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 16:45	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 16:45	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 16:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 16:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 16:45	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 16:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 16:45	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 16:45	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 16:45	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 16:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 16:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 16:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:45	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 16:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 16:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 16:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 16:45	75-35-4	
cis-1,2-Dichloroethene	**0.55J**	ug/L	1.0	0.19	1		12/22/15 16:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 16:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 16:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 16:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 16:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 16:45	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 16:45	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 16:45	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 16:45	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:45	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 16:45	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 16:45	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 16:45	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 16:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 16:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 16:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 16:45	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 16:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:45	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-L-121615 **Lab ID: 92280507017** Collected: 12/16/15 12:30 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 16:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 16:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 16:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 16:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 16:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 16:45	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 16:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 16:45	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 16:45	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 16:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 16:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 16:45	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 16:45	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 16:45	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#5-121515 **Lab ID: 92280507018** Collected: 12/16/15 12:55 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 16:28	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:28	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 16:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 16:28	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 16:28	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 16:28	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 16:28	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 16:28	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 16:28	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 16:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 16:28	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 16:28	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 16:28	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 16:28	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 16:28	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:28	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 16:28	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 16:28	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 16:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 16:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:28	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 16:28	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 16:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 16:28	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 16:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 16:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 16:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 16:28	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 16:28	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 16:28	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 16:28	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 16:28	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:28	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 16:28	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 16:28	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:28	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 16:28	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 16:28	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 16:28	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 16:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 16:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 16:28	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 16:28	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 16:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:28	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#5-121515 **Lab ID: 92280507018** Collected: 12/16/15 12:55 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 16:28	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 16:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 16:28	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 16:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 16:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 16:28	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 16:28	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 16:28	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 16:28	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 16:28	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 16:28	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		12/22/15 16:28	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 16:28	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		12/22/15 16:28	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#16-121615 **Lab ID: 92280507019** Collected: 12/16/15 13:07 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 16:12	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:12	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 16:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 16:12	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 16:12	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 16:12	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 16:12	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 16:12	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 16:12	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 16:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 16:12	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 16:12	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 16:12	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 16:12	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 16:12	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 16:12	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 16:12	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 16:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 16:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:12	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 16:12	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 16:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 16:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 16:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 16:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 16:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 16:12	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 16:12	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 16:12	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 16:12	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 16:12	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 16:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 16:12	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 16:12	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 16:12	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 16:12	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 16:12	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 16:12	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 16:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 16:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 16:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 16:12	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 16:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 16:12	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#16-121615 **Lab ID: 92280507019** Collected: 12/16/15 13:07 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 16:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 16:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 16:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 16:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 16:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 16:12	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 16:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 16:12	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 16:12	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 16:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 16:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		12/22/15 16:12	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		12/22/15 16:12	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 16:12	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-I-121615 **Lab ID: 92280507020** Collected: 12/16/15 13:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 15:55	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:55	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 15:55	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 15:55	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 15:55	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 15:55	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 15:55	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 15:55	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 15:55	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 15:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 15:55	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 15:55	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 15:55	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 15:55	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 15:55	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 15:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 15:55	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 15:55	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 15:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 15:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 15:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 15:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 15:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 15:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 15:55	75-35-4	
cis-1,2-Dichloroethene	**1.1**	ug/L	1.0	0.19	1		12/22/15 15:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 15:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 15:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 15:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 15:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 15:55	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 15:55	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 15:55	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 15:55	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 15:55	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 15:55	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 15:55	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 15:55	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 15:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 15:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 15:55	79-34-5	
Tetrachloroethene	**0.55J**	ug/L	1.0	0.46	1		12/22/15 15:55	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 15:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 15:55	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: SEEP-I-121615 **Lab ID: 92280507020** Collected: 12/16/15 13:20 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 15:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 15:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 15:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 15:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 15:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 15:55	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 15:55	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 15:55	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 15:55	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 15:55	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 15:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		12/22/15 15:55	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		12/22/15 15:55	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 15:55	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#3-121615 **Lab ID: 92280507021** Collected: 12/16/15 13:56 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 15:03	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:03	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 15:03	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 15:03	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 15:03	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 15:03	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 15:03	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 15:03	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 15:03	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 15:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 15:03	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 15:03	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 15:03	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 15:03	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 15:03	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 15:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 15:03	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 15:03	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 15:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 15:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 15:03	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 15:03	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 15:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 15:03	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 15:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 15:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 15:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 15:03	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 15:03	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 15:03	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 15:03	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 15:03	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 15:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 15:03	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 15:03	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 15:03	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 15:03	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 15:03	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 15:03	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 15:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 15:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 15:03	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 15:03	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 15:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 15:03	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#3-121615 **Lab ID: 92280507021** Collected: 12/16/15 13:56 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 15:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 15:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 15:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 15:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 15:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 15:03	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 15:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 15:03	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 15:03	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 15:03	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 15:03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 15:03	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		12/22/15 15:03	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 15:03	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#15-121615 **Lab ID: 92280507022** Collected: 12/16/15 14:10 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 14:46	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 14:46	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 14:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 14:46	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 14:46	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 14:46	74-83-9	M1
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 14:46	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 14:46	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 14:46	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 14:46	56-23-5	M1
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 14:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 14:46	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 14:46	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 14:46	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 14:46	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 14:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 14:46	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 14:46	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 14:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 14:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 14:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 14:46	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 14:46	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 14:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 14:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 14:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 14:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 14:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 14:46	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 14:46	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 14:46	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 14:46	563-58-6	M1
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 14:46	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 14:46	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 14:46	87-68-3	L3,M0
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 14:46	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 14:46	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 14:46	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 14:46	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 14:46	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 14:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 14:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 14:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 14:46	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 14:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 14:46	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: MB#15-121615 **Lab ID: 92280507022** Collected: 12/16/15 14:10 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 14:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 14:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 14:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 14:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 14:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 14:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 14:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 14:46	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 14:46	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 14:46	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 14:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		12/22/15 14:46	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/22/15 14:46	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/22/15 14:46	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: DRUM COMPOSITE-121615 **Lab ID: 92280507023** Collected: 12/16/15 16:10 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	2.0	0.50	2		12/24/15 08:38	71-43-2	
Bromobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:38	108-86-1	
Bromochloromethane	ND	ug/L	2.0	0.34	2		12/24/15 08:38	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	0.36	2		12/24/15 08:38	75-27-4	
Bromoform	ND	ug/L	2.0	0.52	2		12/24/15 08:38	75-25-2	
Bromomethane	ND	ug/L	4.0	0.58	2		12/24/15 08:38	74-83-9	
n-Butylbenzene	ND	ug/L	2.0	0.82	2		12/24/15 08:38	104-51-8	
sec-Butylbenzene	ND	ug/L	2.0	0.76	2		12/24/15 08:38	135-98-8	
tert-Butylbenzene	ND	ug/L	2.0	0.80	2		12/24/15 08:38	98-06-6	
Carbon tetrachloride	ND	ug/L	2.0	0.50	2		12/24/15 08:38	56-23-5	
Chlorobenzene	ND	ug/L	2.0	0.46	2		12/24/15 08:38	108-90-7	
Chloroethane	ND	ug/L	2.0	1.1	2		12/24/15 08:38	75-00-3	
Chloroform	**0.72J**	ug/L	2.0	0.28	2		12/24/15 08:38	67-66-3	
Chloromethane	ND	ug/L	2.0	0.22	2		12/24/15 08:38	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	0.70	2		12/24/15 08:38	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	4.0	2		12/24/15 08:38	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	0.54	2		12/24/15 08:38	106-93-4	
Dibromomethane	ND	ug/L	2.0	0.42	2		12/24/15 08:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	0.48	2		12/24/15 08:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:38	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	0.42	2		12/24/15 08:38	75-71-8	
1,1-Dichloroethane	ND	ug/L	2.0	0.64	2		12/24/15 08:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	0.48	2		12/24/15 08:38	107-06-2	
1,1-Dichloroethene	**7.1**	ug/L	2.0	1.1	2		12/24/15 08:38	75-35-4	
cis-1,2-Dichloroethene	**155**	ug/L	2.0	0.38	2		12/24/15 08:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	0.98	2		12/24/15 08:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	0.54	2		12/24/15 08:38	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	0.56	2		12/24/15 08:38	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	0.26	2		12/24/15 08:38	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	0.98	2		12/24/15 08:38	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	300	157	2		12/24/15 08:38	123-91-1	L3
Ethylbenzene	ND	ug/L	2.0	0.60	2		12/24/15 08:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	1.4	2		12/24/15 08:38	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	2.0	0.80	2		12/24/15 08:38	98-82-8	
p-Isopropyltoluene	ND	ug/L	2.0	0.62	2		12/24/15 08:38	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1.9	2		12/24/15 08:38	75-09-2	
Naphthalene	ND	ug/L	2.0	0.48	2		12/24/15 08:38	91-20-3	
n-Propylbenzene	ND	ug/L	2.0	0.84	2		12/24/15 08:38	103-65-1	
Styrene	ND	ug/L	2.0	0.52	2		12/24/15 08:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	0.66	2		12/24/15 08:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	0.80	2		12/24/15 08:38	79-34-5	
Tetrachloroethene	ND	ug/L	2.0	0.92	2		12/24/15 08:38	127-18-4	
Toluene	ND	ug/L	2.0	0.52	2		12/24/15 08:38	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	0.66	2		12/24/15 08:38	87-61-6	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: DRUM COMPOSITE-121615 **Lab ID: 92280507023** Collected: 12/16/15 16:10 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.70	2		12/24/15 08:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	2.0	0.96	2		12/24/15 08:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	0.58	2		12/24/15 08:38	79-00-5	
Trichloroethene	**779**	ug/L	10.0	4.7	10		12/24/15 14:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	0.40	2		12/24/15 08:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	0.82	2		12/24/15 08:38	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	2.0	0.62	2		12/24/15 08:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	2.0	0.72	2		12/24/15 08:38	108-67-8	
Vinyl chloride	**3.6**	ug/L	2.0	1.2	2		12/24/15 08:38	75-01-4	
m&p-Xylene	ND	ug/L	4.0	1.3	2		12/24/15 08:38	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.46	2		12/24/15 08:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		2		12/24/15 08:38	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		2		12/24/15 08:38	17060-07-0	
Toluene-d8 (S)	99	%	70-130		2		12/24/15 08:38	2037-26-5	

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: TRIP BLANK **Lab ID: 92280507024** Collected: 12/15/15 00:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		12/22/15 13:38	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/22/15 13:38	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/22/15 13:38	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/22/15 13:38	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/22/15 13:38	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/22/15 13:38	74-83-9	
n-Butylbenzene	ND	ug/L	1.0	0.41	1		12/22/15 13:38	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.38	1		12/22/15 13:38	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.40	1		12/22/15 13:38	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/22/15 13:38	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/22/15 13:38	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/22/15 13:38	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/22/15 13:38	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/22/15 13:38	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/22/15 13:38	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/22/15 13:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/22/15 13:38	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/22/15 13:38	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/22/15 13:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/22/15 13:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/22/15 13:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 13:38	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/22/15 13:38	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/22/15 13:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/22/15 13:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/22/15 13:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/22/15 13:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/22/15 13:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/22/15 13:38	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/22/15 13:38	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/22/15 13:38	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/22/15 13:38	563-58-6	
1,4-Dioxane (p-Dioxane)	ND	ug/L	150	78.4	1		12/22/15 13:38	123-91-1	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/22/15 13:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/22/15 13:38	87-68-3	L3
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.40	1		12/22/15 13:38	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/22/15 13:38	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/22/15 13:38	75-09-2	
Naphthalene	ND	ug/L	1.0	0.24	1		12/22/15 13:38	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.42	1		12/22/15 13:38	103-65-1	
Styrene	ND	ug/L	1.0	0.26	1		12/22/15 13:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/22/15 13:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/22/15 13:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/22/15 13:38	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/22/15 13:38	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/22/15 13:38	87-61-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Sample: TRIP BLANK **Lab ID: 92280507024** Collected: 12/15/15 00:00 Received: 12/18/15 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/22/15 13:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/22/15 13:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/22/15 13:38	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/22/15 13:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/22/15 13:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/22/15 13:38	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.31	1		12/22/15 13:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.36	1		12/22/15 13:38	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/22/15 13:38	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/22/15 13:38	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/22/15 13:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		12/22/15 13:38	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		12/22/15 13:38	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/22/15 13:38	2037-26-5	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34862 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507014, 92280507015, 92280507016, 92280507017, 92280507018, 92280507019, 92280507020, 92280507021, 92280507022, 92280507024

METHOD BLANK: 1635247 Matrix: Water
Associated Lab Samples: 92280507014, 92280507015, 92280507016, 92280507017, 92280507018, 92280507019, 92280507020, 92280507021, 92280507022, 92280507024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/22/15 12:13	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/22/15 12:13	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/22/15 12:13	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/22/15 12:13	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/22/15 12:13	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/22/15 12:13	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/22/15 12:13	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/22/15 12:13	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/22/15 12:13	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/22/15 12:13	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/22/15 12:13	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/22/15 12:13	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/22/15 12:13	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/22/15 12:13	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/22/15 12:13	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/22/15 12:13	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/22/15 12:13	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/22/15 12:13	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/22/15 12:13	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/22/15 12:13	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	78.4	12/22/15 12:13	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/22/15 12:13	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/22/15 12:13	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/22/15 12:13	
Benzene	ug/L	ND	1.0	0.25	12/22/15 12:13	
Bromobenzene	ug/L	ND	1.0	0.30	12/22/15 12:13	
Bromochloromethane	ug/L	ND	1.0	0.17	12/22/15 12:13	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/22/15 12:13	
Bromoform	ug/L	ND	1.0	0.26	12/22/15 12:13	
Bromomethane	ug/L	ND	2.0	0.29	12/22/15 12:13	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/22/15 12:13	
Chlorobenzene	ug/L	ND	1.0	0.23	12/22/15 12:13	
Chloroethane	ug/L	ND	1.0	0.54	12/22/15 12:13	
Chloroform	ug/L	ND	1.0	0.14	12/22/15 12:13	
Chloromethane	ug/L	ND	1.0	0.11	12/22/15 12:13	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/22/15 12:13	
Dibromomethane	ug/L	ND	1.0	0.21	12/22/15 12:13	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/22/15 12:13	
Ethylbenzene	ug/L	ND	1.0	0.30	12/22/15 12:13	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/22/15 12:13	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1635247 Matrix: Water
Associated Lab Samples: 92280507014, 92280507015, 92280507016, 92280507017, 92280507018, 92280507019, 92280507020, 92280507021, 92280507022, 92280507024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/22/15 12:13	
m&p-Xylene	ug/L	ND	2.0	0.66	12/22/15 12:13	
Methylene Chloride	ug/L	ND	2.0	0.97	12/22/15 12:13	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/22/15 12:13	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/22/15 12:13	
Naphthalene	ug/L	ND	1.0	0.24	12/22/15 12:13	
o-Xylene	ug/L	ND	1.0	0.23	12/22/15 12:13	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/22/15 12:13	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/22/15 12:13	
Styrene	ug/L	ND	1.0	0.26	12/22/15 12:13	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/22/15 12:13	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/22/15 12:13	
Toluene	ug/L	ND	1.0	0.26	12/22/15 12:13	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/22/15 12:13	
Trichloroethene	ug/L	ND	1.0	0.47	12/22/15 12:13	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/22/15 12:13	
Vinyl chloride	ug/L	ND	1.0	0.62	12/22/15 12:13	
1,2-Dichloroethane-d4 (S)	%	108	70-130		12/22/15 12:13	
4-Bromofluorobenzene (S)	%	103	70-130		12/22/15 12:13	
Toluene-d8 (S)	%	100	70-130		12/22/15 12:13	

LABORATORY CONTROL SAMPLE: 1635248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.6	111	70-130	
1,1,1-Trichloroethane	ug/L	50	57.0	114	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.0	110	70-130	
1,1,2-Trichloroethane	ug/L	50	50.0	100	70-130	
1,1-Dichloroethane	ug/L	50	51.9	104	70-130	
1,1-Dichloroethene	ug/L	50	54.5	109	70-132	
1,1-Dichloropropene	ug/L	50	58.6	117	70-130	
1,2,3-Trichlorobenzene	ug/L	50	55.4	111	70-135	
1,2,3-Trichloropropane	ug/L	50	52.5	105	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.9	106	70-134	
1,2,4-Trimethylbenzene	ug/L	50	54.8	110	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	50.7	101	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	52.2	104	70-130	
1,2-Dichloroethane	ug/L	50	48.3	97	70-130	
1,2-Dichloropropane	ug/L	50	51.1	102	70-130	
1,3,5-Trimethylbenzene	ug/L	50	55.0	110	70-130	
1,3-Dichlorobenzene	ug/L	50	55.2	110	70-130	
1,3-Dichloropropane	ug/L	50	52.9	106	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1635248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	54.7	109	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1030	103	71-125	
2,2-Dichloropropane	ug/L	50	61.2	122	58-145	
2-Chlorotoluene	ug/L	50	57.3	115	70-130	
4-Chlorotoluene	ug/L	50	54.9	110	70-130	
Benzene	ug/L	50	52.4	105	70-130	
Bromobenzene	ug/L	50	56.6	113	70-130	
Bromochloromethane	ug/L	50	51.7	103	70-130	
Bromodichloromethane	ug/L	50	55.3	111	70-130	
Bromoform	ug/L	50	45.2	90	70-130	
Bromomethane	ug/L	50	49.7	99	54-130	
Carbon tetrachloride	ug/L	50	59.1	118	70-132	
Chlorobenzene	ug/L	50	55.3	111	70-130	
Chloroethane	ug/L	50	50.5	101	64-134	
Chloroform	ug/L	50	55.8	112	70-130	
Chloromethane	ug/L	50	48.1	96	64-130	
cis-1,2-Dichloroethene	ug/L	50	51.3	103	70-131	
Dibromomethane	ug/L	50	50.8	102	70-131	
Dichlorodifluoromethane	ug/L	50	50.5	101	56-130	
Ethylbenzene	ug/L	50	57.0	114	70-130	
Hexachloro-1,3-butadiene	ug/L	50	68.5	137	70-130	L0
Isopropylbenzene (Cumene)	ug/L	50	60.3	121	70-130	
m&p-Xylene	ug/L	100	115	115	70-130	
Methylene Chloride	ug/L	50	44.0	88	63-130	
n-Butylbenzene	ug/L	50	60.7	121	70-130	
n-Propylbenzene	ug/L	50	56.4	113	70-130	
Naphthalene	ug/L	50	51.9	104	70-138	
o-Xylene	ug/L	50	55.7	111	70-130	
p-Isopropyltoluene	ug/L	50	56.2	112	70-130	
sec-Butylbenzene	ug/L	50	58.0	116	70-130	
Styrene	ug/L	50	57.2	114	70-130	
tert-Butylbenzene	ug/L	50	45.5	91	70-130	
Tetrachloroethene	ug/L	50	53.3	107	70-130	
Toluene	ug/L	50	55.4	111	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.3	105	70-130	
Trichloroethene	ug/L	50	54.5	109	70-130	
Trichlorofluoromethane	ug/L	50	55.9	112	62-133	
Vinyl chloride	ug/L	50	52.2	104	50-150	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1635249

Parameter	Units	92280507022 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	23.1	115	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	25.5	127	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	22.8	114	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	22.2	111	70-130	
1,1-Dichloroethane	ug/L	ND	20	23.3	116	70-130	
1,1-Dichloroethene	ug/L	ND	20	24.1	120	70-166	
1,1-Dichloropropene	ug/L	ND	20	26.3	132	70-130	M1
1,2,3-Trichlorobenzene	ug/L	ND	20	20.8	104	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	22.7	114	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	20.8	104	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	22.1	110	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	22.0	110	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.0	110	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.8	104	70-130	
1,2-Dichloroethane	ug/L	ND	20	21.3	106	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.5	113	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	22.5	113	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	22.3	112	70-130	
1,3-Dichloropropane	ug/L	ND	20	22.7	113	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	23.1	115	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	375	94	70-130	
2,2-Dichloropropane	ug/L	ND	20	24.3	122	70-130	
2-Chlorotoluene	ug/L	ND	20	22.2	111	70-130	
4-Chlorotoluene	ug/L	ND	20	23.2	116	70-130	
Benzene	ug/L	ND	20	23.0	115	70-148	
Bromobenzene	ug/L	ND	20	23.2	116	70-130	
Bromochloromethane	ug/L	ND	20	23.3	116	70-130	
Bromodichloromethane	ug/L	ND	20	23.5	117	70-130	
Bromoform	ug/L	ND	20	19.5	97	70-130	
Bromomethane	ug/L	ND	20	13.2	66	70-130	M1
Carbon tetrachloride	ug/L	ND	20	26.4	132	70-130	M1
Chlorobenzene	ug/L	ND	20	23.6	118	70-146	
Chloroethane	ug/L	ND	20	21.4	107	70-130	
Chloroform	ug/L	ND	20	24.0	120	70-130	
Chloromethane	ug/L	ND	20	19.5	98	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	23.1	116	70-130	
Dibromomethane	ug/L	ND	20	22.3	112	70-130	
Dichlorodifluoromethane	ug/L	ND	20	19.9	100	70-130	
Ethylbenzene	ug/L	ND	20	24.4	122	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	26.5	133	70-130	M0
Isopropylbenzene (Cumene)	ug/L	ND	20	25.2	126	70-130	
m&p-Xylene	ug/L	ND	40	48.2	120	70-130	
Methylene Chloride	ug/L	ND	20	15.7	79	70-130	
n-Butylbenzene	ug/L	ND	20	23.3	117	70-130	
n-Propylbenzene	ug/L	ND	20	23.1	116	70-130	
Naphthalene	ug/L	ND	20	21.2	106	70-130	
o-Xylene	ug/L	ND	20	23.4	117	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1635249

Parameter	Units	92280507022 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	ND	20	22.2	111	70-130	
sec-Butylbenzene	ug/L	ND	20	23.7	118	70-130	
Styrene	ug/L	ND	20	23.8	119	70-130	
tert-Butylbenzene	ug/L	ND	20	18.3	92	70-130	
Tetrachloroethene	ug/L	ND	20	22.9	115	70-130	
Toluene	ug/L	ND	20	24.3	121	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.1	116	70-130	
Trichloroethene	ug/L	ND	20	24.6	123	69-151	
Trichlorofluoromethane	ug/L	ND	20	25.2	126	70-130	
Vinyl chloride	ug/L	ND	20	22.6	113	70-130	
1,2-Dichloroethane-d4 (S)	%				108	70-130	
4-Bromofluorobenzene (S)	%				106	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1635250

Parameter	Units	92280507021 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

SAMPLE DUPLICATE: 1635250

Parameter	Units	92280507021 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	106	109	3		
4-Bromofluorobenzene (S)	%	104	104	0		
Toluene-d8 (S)	%	100	101	1		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34886 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507001, 92280507002, 92280507009, 92280507010, 92280507011

METHOD BLANK: 1635813 Matrix: Water
Associated Lab Samples: 92280507001, 92280507002, 92280507009, 92280507010, 92280507011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/22/15 12:30	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/22/15 12:30	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/22/15 12:30	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/22/15 12:30	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/22/15 12:30	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/22/15 12:30	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/22/15 12:30	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/22/15 12:30	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/22/15 12:30	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/22/15 12:30	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/22/15 12:30	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/22/15 12:30	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/22/15 12:30	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/22/15 12:30	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/22/15 12:30	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/22/15 12:30	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/22/15 12:30	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/22/15 12:30	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/22/15 12:30	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/22/15 12:30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	78.4	12/22/15 12:30	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/22/15 12:30	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/22/15 12:30	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/22/15 12:30	
Benzene	ug/L	ND	1.0	0.25	12/22/15 12:30	
Bromobenzene	ug/L	ND	1.0	0.30	12/22/15 12:30	
Bromochloromethane	ug/L	ND	1.0	0.17	12/22/15 12:30	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/22/15 12:30	
Bromoform	ug/L	ND	1.0	0.26	12/22/15 12:30	
Bromomethane	ug/L	ND	2.0	0.29	12/22/15 12:30	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/22/15 12:30	
Chlorobenzene	ug/L	ND	1.0	0.23	12/22/15 12:30	
Chloroethane	ug/L	ND	1.0	0.54	12/22/15 12:30	
Chloroform	ug/L	ND	1.0	0.14	12/22/15 12:30	
Chloromethane	ug/L	ND	1.0	0.11	12/22/15 12:30	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/22/15 12:30	
Dibromomethane	ug/L	ND	1.0	0.21	12/22/15 12:30	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/22/15 12:30	
Ethylbenzene	ug/L	ND	1.0	0.30	12/22/15 12:30	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/22/15 12:30	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/22/15 12:30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1635813 Matrix: Water
Associated Lab Samples: 92280507001, 92280507002, 92280507009, 92280507010, 92280507011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	2.0	0.66	12/22/15 12:30	
Methylene Chloride	ug/L	ND	2.0	0.97	12/22/15 12:30	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/22/15 12:30	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/22/15 12:30	
Naphthalene	ug/L	ND	1.0	0.24	12/22/15 12:30	
o-Xylene	ug/L	ND	1.0	0.23	12/22/15 12:30	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/22/15 12:30	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/22/15 12:30	
Styrene	ug/L	ND	1.0	0.26	12/22/15 12:30	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/22/15 12:30	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/22/15 12:30	
Toluene	ug/L	ND	1.0	0.26	12/22/15 12:30	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/22/15 12:30	
Trichloroethene	ug/L	ND	1.0	0.47	12/22/15 12:30	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/22/15 12:30	
Vinyl chloride	ug/L	ND	1.0	0.62	12/22/15 12:30	
1,2-Dichloroethane-d4 (S)	%	107	70-130		12/22/15 12:30	
4-Bromofluorobenzene (S)	%	105	70-130		12/22/15 12:30	
Toluene-d8 (S)	%	100	70-130		12/22/15 12:30	

LABORATORY CONTROL SAMPLE: 1635814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.4	111	70-130	
1,1,1-Trichloroethane	ug/L	50	56.2	112	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	56.0	112	70-130	
1,1,2-Trichloroethane	ug/L	50	50.7	101	70-130	
1,1-Dichloroethane	ug/L	50	51.5	103	70-130	
1,1-Dichloroethene	ug/L	50	54.7	109	70-132	
1,1-Dichloropropene	ug/L	50	59.1	118	70-130	
1,2,3-Trichlorobenzene	ug/L	50	54.3	109	70-135	
1,2,3-Trichloropropane	ug/L	50	55.2	110	70-130	
1,2,4-Trichlorobenzene	ug/L	50	53.6	107	70-134	
1,2,4-Trimethylbenzene	ug/L	50	54.0	108	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.2	102	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	54.0	108	70-130	
1,2-Dichlorobenzene	ug/L	50	51.8	104	70-130	
1,2-Dichloroethane	ug/L	50	48.0	96	70-130	
1,2-Dichloropropane	ug/L	50	50.7	101	70-130	
1,3,5-Trimethylbenzene	ug/L	50	55.2	110	70-130	
1,3-Dichlorobenzene	ug/L	50	54.1	108	70-130	
1,3-Dichloropropane	ug/L	50	54.1	108	70-130	
1,4-Dichlorobenzene	ug/L	50	55.3	111	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1260	126	71-125	L0

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1635814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	61.0	122	58-145	
2-Chlorotoluene	ug/L	50	56.3	113	70-130	
4-Chlorotoluene	ug/L	50	54.7	109	70-130	
Benzene	ug/L	50	52.1	104	70-130	
Bromobenzene	ug/L	50	55.5	111	70-130	
Bromochloromethane	ug/L	50	51.6	103	70-130	
Bromodichloromethane	ug/L	50	55.5	111	70-130	
Bromoform	ug/L	50	45.9	92	70-130	
Bromomethane	ug/L	50	50.3	101	54-130	
Carbon tetrachloride	ug/L	50	58.8	118	70-132	
Chlorobenzene	ug/L	50	55.5	111	70-130	
Chloroethane	ug/L	50	49.4	99	64-134	
Chloroform	ug/L	50	56.0	112	70-130	
Chloromethane	ug/L	50	48.8	98	64-130	
cis-1,2-Dichloroethene	ug/L	50	51.2	102	70-131	
Dibromomethane	ug/L	50	51.5	103	70-131	
Dichlorodifluoromethane	ug/L	50	49.9	100	56-130	
Ethylbenzene	ug/L	50	57.0	114	70-130	
Hexachloro-1,3-butadiene	ug/L	50	67.2	134	70-130	L0
Isopropylbenzene (Cumene)	ug/L	50	61.2	122	70-130	
m&p-Xylene	ug/L	100	115	115	70-130	
Methylene Chloride	ug/L	50	43.3	87	63-130	
n-Butylbenzene	ug/L	50	59.3	119	70-130	
n-Propylbenzene	ug/L	50	55.5	111	70-130	
Naphthalene	ug/L	50	53.7	107	70-138	
o-Xylene	ug/L	50	56.3	113	70-130	
p-Isopropyltoluene	ug/L	50	55.7	111	70-130	
sec-Butylbenzene	ug/L	50	57.4	115	70-130	
Styrene	ug/L	50	57.2	114	70-130	
tert-Butylbenzene	ug/L	50	44.3	89	70-130	
Tetrachloroethene	ug/L	50	54.1	108	70-130	
Toluene	ug/L	50	55.4	111	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.5	105	70-130	
Trichloroethene	ug/L	50	54.9	110	70-130	
Trichlorofluoromethane	ug/L	50	55.6	111	62-133	
Vinyl chloride	ug/L	50	53.2	106	50-150	
1,2-Dichloroethane-d4 (S)	%			104	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1635815

Parameter	Units	92280507011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.3	106	70-130	
1,1,1-Trichloroethane	ug/L	3.1	20	28.2	126	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1635815

Parameter	Units	92280507011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	20	21.1	106	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	20.7	103	70-130	
1,1-Dichloroethane	ug/L	0.39J	20	22.3	109	70-130	
1,1-Dichloroethene	ug/L	30.7	20	52.7	110	70-166	
1,1-Dichloropropene	ug/L	ND	20	24.8	124	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	20.2	101	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	21.0	105	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	19.7	99	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	20	21.3	107	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20.6	103	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.7	103	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.3	102	70-130	
1,2-Dichloroethane	ug/L	ND	20	20.7	103	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.6	103	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	20	21.8	109	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	21.6	108	70-130	
1,3-Dichloropropane	ug/L	ND	20	21.4	107	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	21.8	109	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	389	97	70-130	
2,2-Dichloropropane	ug/L	ND	20	24.9	124	70-130	
2-Chlorotoluene	ug/L	ND	20	22.5	113	70-130	
4-Chlorotoluene	ug/L	ND	20	22.2	111	70-130	
Benzene	ug/L	ND	20	21.4	107	70-148	
Bromobenzene	ug/L	ND	20	22.6	113	70-130	
Bromochloromethane	ug/L	ND	20	20.9	104	70-130	
Bromodichloromethane	ug/L	ND	20	22.4	112	70-130	
Bromoform	ug/L	ND	20	18.6	93	70-130	
Bromomethane	ug/L	ND	20	14.2	71	70-130	
Carbon tetrachloride	ug/L	ND	20	24.6	123	70-130	
Chlorobenzene	ug/L	ND	20	22.5	112	70-146	
Chloroethane	ug/L	ND	20	21.0	105	70-130	
Chloroform	ug/L	1.5	20	25.1	118	70-130	
Chloromethane	ug/L	ND	20	17.5	88	70-130	
cis-1,2-Dichloroethene	ug/L	40.1	20	60.9	104	70-130	
Dibromomethane	ug/L	ND	20	20.3	102	70-130	
Dichlorodifluoromethane	ug/L	ND	20	16.4	82	70-130	
Ethylbenzene	ug/L	ND	20	22.8	114	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	27.4	137	70-130	M0
Isopropylbenzene (Cumene)	ug/L	ND	20	23.9	119	70-130	
m&p-Xylene	ug/L	ND	40	46.2	116	70-130	
Methylene Chloride	ug/L	ND	20	14.1	71	70-130	
n-Butylbenzene	ug/L	ND	20	22.6	113	70-130	
n-Propylbenzene	ug/L	ND	20	22.4	112	70-130	
Naphthalene	ug/L	ND	20	20.3	101	70-130	
o-Xylene	ug/L	ND	20	22.2	111	70-130	
p-Isopropyltoluene	ug/L	ND	20	21.8	109	70-130	
sec-Butylbenzene	ug/L	ND	20	22.8	114	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1635815

Parameter	Units	92280507011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	ND	20	22.1	111	70-130	
tert-Butylbenzene	ug/L	ND	20	17.9	90	70-130	
Tetrachloroethene	ug/L	ND	20	22.5	112	70-130	
Toluene	ug/L	ND	20	22.7	113	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	21.7	107	70-130	
Trichlorofluoromethane	ug/L	ND	20	23.2	116	70-130	
Vinyl chloride	ug/L	ND	20	20.8	103	70-130	
1,2-Dichloroethane-d4 (S)	%				109	70-130	
4-Bromofluorobenzene (S)	%				107	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1635816

Parameter	Units	92280507002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	3.1	3.1	1	30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

SAMPLE DUPLICATE: 1635816

Parameter	Units	92280507002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	26.6	25.0	6	30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	6.3	6.2	2	30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	0.94J	0.92J		30	
1,2-Dichloroethane-d4 (S)	%	111	110	1		
4-Bromofluorobenzene (S)	%	103	102	1		
Toluene-d8 (S)	%	101	101	0		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34891 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507003, 92280507004, 92280507005, 92280507006

METHOD BLANK: 1635840 Matrix: Water
Associated Lab Samples: 92280507003, 92280507004, 92280507005, 92280507006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/23/15 00:44	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/23/15 00:44	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/23/15 00:44	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/23/15 00:44	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/23/15 00:44	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/23/15 00:44	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/23/15 00:44	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/23/15 00:44	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/23/15 00:44	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/23/15 00:44	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/23/15 00:44	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/23/15 00:44	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/23/15 00:44	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/23/15 00:44	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/23/15 00:44	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/23/15 00:44	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/23/15 00:44	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/23/15 00:44	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/23/15 00:44	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/23/15 00:44	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/23/15 00:44	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/23/15 00:44	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/23/15 00:44	
Benzene	ug/L	ND	1.0	0.25	12/23/15 00:44	
Bromobenzene	ug/L	ND	1.0	0.30	12/23/15 00:44	
Bromochloromethane	ug/L	ND	1.0	0.17	12/23/15 00:44	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/23/15 00:44	
Bromoform	ug/L	ND	1.0	0.26	12/23/15 00:44	
Bromomethane	ug/L	ND	2.0	0.29	12/23/15 00:44	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/23/15 00:44	
Chlorobenzene	ug/L	ND	1.0	0.23	12/23/15 00:44	
Chloroethane	ug/L	ND	1.0	0.54	12/23/15 00:44	
Chloroform	ug/L	ND	1.0	0.14	12/23/15 00:44	
Chloromethane	ug/L	ND	1.0	0.11	12/23/15 00:44	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/23/15 00:44	
Dibromomethane	ug/L	ND	1.0	0.21	12/23/15 00:44	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/23/15 00:44	
Ethylbenzene	ug/L	ND	1.0	0.30	12/23/15 00:44	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/23/15 00:44	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/23/15 00:44	
m&p-Xylene	ug/L	ND	2.0	0.66	12/23/15 00:44	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1635840 Matrix: Water
Associated Lab Samples: 92280507003, 92280507004, 92280507005, 92280507006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methylene Chloride	ug/L	ND	2.0	0.97	12/23/15 00:44	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/23/15 00:44	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/23/15 00:44	
Naphthalene	ug/L	ND	1.0	0.24	12/23/15 00:44	
o-Xylene	ug/L	ND	1.0	0.23	12/23/15 00:44	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/23/15 00:44	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/23/15 00:44	
Styrene	ug/L	ND	1.0	0.26	12/23/15 00:44	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/23/15 00:44	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/23/15 00:44	
Toluene	ug/L	ND	1.0	0.26	12/23/15 00:44	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/23/15 00:44	
Trichloroethene	ug/L	ND	1.0	0.47	12/23/15 00:44	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/23/15 00:44	
Vinyl chloride	ug/L	ND	1.0	0.62	12/23/15 00:44	
1,2-Dichloroethane-d4 (S)	%	109	70-130		12/23/15 00:44	
4-Bromofluorobenzene (S)	%	103	70-130		12/23/15 00:44	
Toluene-d8 (S)	%	99	70-130		12/23/15 00:44	

LABORATORY CONTROL SAMPLE: 1635841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.9	110	70-130	
1,1,1-Trichloroethane	ug/L	50	59.1	118	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.7	111	70-130	
1,1,2-Trichloroethane	ug/L	50	50.4	101	70-130	
1,1-Dichloroethane	ug/L	50	53.3	107	70-130	
1,1-Dichloroethene	ug/L	50	54.9	110	70-132	
1,1-Dichloropropene	ug/L	50	59.8	120	70-130	
1,2,3-Trichlorobenzene	ug/L	50	54.1	108	70-135	
1,2,3-Trichloropropane	ug/L	50	54.6	109	70-130	
1,2,4-Trichlorobenzene	ug/L	50	53.9	108	70-134	
1,2,4-Trimethylbenzene	ug/L	50	53.4	107	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.5	103	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.7	105	70-130	
1,2-Dichlorobenzene	ug/L	50	53.4	107	70-130	
1,2-Dichloroethane	ug/L	50	50.3	101	70-130	
1,2-Dichloropropane	ug/L	50	51.3	103	70-130	
1,3,5-Trimethylbenzene	ug/L	50	54.6	109	70-130	
1,3-Dichlorobenzene	ug/L	50	54.8	110	70-130	
1,3-Dichloropropane	ug/L	50	52.9	106	70-130	
1,4-Dichlorobenzene	ug/L	50	56.0	112	70-130	
2,2-Dichloropropane	ug/L	50	56.8	114	58-145	
2-Chlorotoluene	ug/L	50	57.3	115	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1635841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/L	50	55.6	111	70-130	
Benzene	ug/L	50	52.1	104	70-130	
Bromobenzene	ug/L	50	56.7	113	70-130	
Bromochloromethane	ug/L	50	52.3	105	70-130	
Bromodichloromethane	ug/L	50	56.3	113	70-130	
Bromoform	ug/L	50	45.2	90	70-130	
Bromomethane	ug/L	50	49.1	98	54-130	
Carbon tetrachloride	ug/L	50	59.4	119	70-132	
Chlorobenzene	ug/L	50	55.2	110	70-130	
Chloroethane	ug/L	50	50.6	101	64-134	
Chloroform	ug/L	50	57.3	115	70-130	
Chloromethane	ug/L	50	48.3	97	64-130	
cis-1,2-Dichloroethene	ug/L	50	52.5	105	70-131	
Dibromomethane	ug/L	50	52.8	106	70-131	
Dichlorodifluoromethane	ug/L	50	48.6	97	56-130	
Ethylbenzene	ug/L	50	56.3	113	70-130	
Hexachloro-1,3-butadiene	ug/L	50	65.5	131	70-130	L0
Isopropylbenzene (Cumene)	ug/L	50	59.7	119	70-130	
m&p-Xylene	ug/L	100	113	113	70-130	
Methylene Chloride	ug/L	50	45.6	91	63-130	
n-Butylbenzene	ug/L	50	58.1	116	70-130	
n-Propylbenzene	ug/L	50	55.2	110	70-130	
Naphthalene	ug/L	50	53.6	107	70-138	
o-Xylene	ug/L	50	55.4	111	70-130	
p-Isopropyltoluene	ug/L	50	54.7	109	70-130	
sec-Butylbenzene	ug/L	50	57.3	115	70-130	
Styrene	ug/L	50	57.2	114	70-130	
tert-Butylbenzene	ug/L	50	44.7	89	70-130	
Tetrachloroethene	ug/L	50	52.8	106	70-130	
Toluene	ug/L	50	55.3	111	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.1	104	70-130	
Trichloroethene	ug/L	50	54.6	109	70-130	
Trichlorofluoromethane	ug/L	50	56.9	114	62-133	
Vinyl chloride	ug/L	50	52.4	105	50-150	
1,2-Dichloroethane-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			98	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34901 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507012, 92280507013

METHOD BLANK: 1636342 Matrix: Water
Associated Lab Samples: 92280507012, 92280507013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/23/15 12:59	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/23/15 12:59	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/23/15 12:59	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/23/15 12:59	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/23/15 12:59	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/23/15 12:59	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/23/15 12:59	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/23/15 12:59	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/23/15 12:59	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/23/15 12:59	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/23/15 12:59	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/23/15 12:59	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/23/15 12:59	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/23/15 12:59	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/23/15 12:59	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/23/15 12:59	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/23/15 12:59	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/23/15 12:59	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/23/15 12:59	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/23/15 12:59	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	78.4	12/23/15 12:59	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/23/15 12:59	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/23/15 12:59	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/23/15 12:59	
Benzene	ug/L	ND	1.0	0.25	12/23/15 12:59	
Bromobenzene	ug/L	ND	1.0	0.30	12/23/15 12:59	
Bromochloromethane	ug/L	ND	1.0	0.17	12/23/15 12:59	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/23/15 12:59	
Bromoform	ug/L	ND	1.0	0.26	12/23/15 12:59	
Bromomethane	ug/L	ND	2.0	0.29	12/23/15 12:59	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/23/15 12:59	
Chlorobenzene	ug/L	ND	1.0	0.23	12/23/15 12:59	
Chloroethane	ug/L	ND	1.0	0.54	12/23/15 12:59	
Chloroform	ug/L	ND	1.0	0.14	12/23/15 12:59	
Chloromethane	ug/L	ND	1.0	0.11	12/23/15 12:59	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/23/15 12:59	
Dibromomethane	ug/L	ND	1.0	0.21	12/23/15 12:59	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/23/15 12:59	
Ethylbenzene	ug/L	ND	1.0	0.30	12/23/15 12:59	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/23/15 12:59	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/23/15 12:59	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1636342 Matrix: Water
Associated Lab Samples: 92280507012, 92280507013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	2.0	0.66	12/23/15 12:59	
Methylene Chloride	ug/L	ND	2.0	0.97	12/23/15 12:59	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/23/15 12:59	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/23/15 12:59	
Naphthalene	ug/L	ND	1.0	0.24	12/23/15 12:59	
o-Xylene	ug/L	ND	1.0	0.23	12/23/15 12:59	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/23/15 12:59	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/23/15 12:59	
Styrene	ug/L	ND	1.0	0.26	12/23/15 12:59	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/23/15 12:59	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/23/15 12:59	
Toluene	ug/L	ND	1.0	0.26	12/23/15 12:59	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/23/15 12:59	
Trichloroethene	ug/L	ND	1.0	0.47	12/23/15 12:59	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/23/15 12:59	
Vinyl chloride	ug/L	ND	1.0	0.62	12/23/15 12:59	
1,2-Dichloroethane-d4 (S)	%	106	70-130		12/23/15 12:59	
4-Bromofluorobenzene (S)	%	105	70-130		12/23/15 12:59	
Toluene-d8 (S)	%	102	70-130		12/23/15 12:59	

LABORATORY CONTROL SAMPLE: 1636343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.4	109	70-130	
1,1,1-Trichloroethane	ug/L	50	57.0	114	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	54.4	109	70-130	
1,1,2-Trichloroethane	ug/L	50	51.5	103	70-130	
1,1-Dichloroethane	ug/L	50	52.1	104	70-130	
1,1-Dichloroethene	ug/L	50	52.2	104	70-132	
1,1-Dichloropropene	ug/L	50	58.2	116	70-130	
1,2,3-Trichlorobenzene	ug/L	50	53.7	107	70-135	
1,2,3-Trichloropropane	ug/L	50	51.6	103	70-130	
1,2,4-Trichlorobenzene	ug/L	50	51.7	103	70-134	
1,2,4-Trimethylbenzene	ug/L	50	53.6	107	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.4	97	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.0	104	70-130	
1,2-Dichlorobenzene	ug/L	50	52.6	105	70-130	
1,2-Dichloroethane	ug/L	50	48.5	97	70-130	
1,2-Dichloropropane	ug/L	50	50.4	101	70-130	
1,3,5-Trimethylbenzene	ug/L	50	54.0	108	70-130	
1,3-Dichlorobenzene	ug/L	50	54.2	108	70-130	
1,3-Dichloropropane	ug/L	50	51.8	104	70-130	
1,4-Dichlorobenzene	ug/L	50	55.1	110	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	974	97	71-125	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1636343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	61.9	124	58-145	
2-Chlorotoluene	ug/L	50	55.5	111	70-130	
4-Chlorotoluene	ug/L	50	54.7	109	70-130	
Benzene	ug/L	50	51.2	102	70-130	
Bromobenzene	ug/L	50	55.0	110	70-130	
Bromochloromethane	ug/L	50	51.4	103	70-130	
Bromodichloromethane	ug/L	50	55.5	111	70-130	
Bromoform	ug/L	50	44.6	89	70-130	
Bromomethane	ug/L	50	49.1	98	54-130	
Carbon tetrachloride	ug/L	50	60.0	120	70-132	
Chlorobenzene	ug/L	50	54.1	108	70-130	
Chloroethane	ug/L	50	47.6	95	64-134	
Chloroform	ug/L	50	55.2	110	70-130	
Chloromethane	ug/L	50	43.9	88	64-130	
cis-1,2-Dichloroethene	ug/L	50	50.8	102	70-131	
Dibromomethane	ug/L	50	52.9	106	70-131	
Dichlorodifluoromethane	ug/L	50	40.9	82	56-130	
Ethylbenzene	ug/L	50	54.9	110	70-130	
Hexachloro-1,3-butadiene	ug/L	50	66.2	132	70-130	L0
Isopropylbenzene (Cumene)	ug/L	50	58.8	118	70-130	
m&p-Xylene	ug/L	100	112	112	70-130	
Methylene Chloride	ug/L	50	41.6	83	63-130	
n-Butylbenzene	ug/L	50	58.6	117	70-130	
n-Propylbenzene	ug/L	50	54.8	110	70-130	
Naphthalene	ug/L	50	50.4	101	70-138	
o-Xylene	ug/L	50	55.2	110	70-130	
p-Isopropyltoluene	ug/L	50	55.1	110	70-130	
sec-Butylbenzene	ug/L	50	56.9	114	70-130	
Styrene	ug/L	50	56.4	113	70-130	
tert-Butylbenzene	ug/L	50	43.7	87	70-130	
Tetrachloroethene	ug/L	50	52.6	105	70-130	
Toluene	ug/L	50	55.1	110	70-130	
trans-1,2-Dichloroethene	ug/L	50	51.0	102	70-130	
Trichloroethene	ug/L	50	55.2	110	70-130	
Trichlorofluoromethane	ug/L	50	54.7	109	62-133	
Vinyl chloride	ug/L	50	48.3	97	50-150	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1636344

Parameter	Units	92280540008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	23.4	117	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	26.4	132	70-130	M1

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1636344

Parameter	Units	92280540008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,2,2-Tetrachloroethane	ug/L	ND	20	23.4	117	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	22.3	112	70-130	
1,1-Dichloroethane	ug/L	ND	20	23.6	118	70-130	
1,1-Dichloroethene	ug/L	ND	20	25.1	126	70-166	
1,1-Dichloropropene	ug/L	ND	20	26.5	133	70-130	M1
1,2,3-Trichlorobenzene	ug/L	ND	20	19.8	99	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	23.5	118	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	19.9	100	70-130	
1,2,4-Trimethylbenzene	ug/L	0.0047 mg/L	20	27.5	114	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	23.2	116	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.2	111	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	22.5	112	70-130	
1,2-Dichloroethane	ug/L	ND	20	21.7	107	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.4	112	70-130	
1,3,5-Trimethylbenzene	ug/L	0.0013 mg/L	20	24.2	115	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	23.3	117	70-130	
1,3-Dichloropropane	ug/L	ND	20	22.6	113	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	23.5	117	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	ND	400	411	103	70-130	
2,2-Dichloropropane	ug/L	ND	20	24.4	122	70-130	
2-Chlorotoluene	ug/L	ND	20	23.9	119	70-130	
4-Chlorotoluene	ug/L	ND	20	23.6	118	70-130	
Benzene	ug/L	ND	20	24.0	120	70-148	
Bromobenzene	ug/L	ND	20	23.8	119	70-130	
Bromochloromethane	ug/L	ND	20	23.1	115	70-130	
Bromodichloromethane	ug/L	ND	20	24.3	122	70-130	
Bromoform	ug/L	ND	20	20.2	101	70-130	
Bromomethane	ug/L	ND	20	11.7	58	70-130	M1
Carbon tetrachloride	ug/L	ND	20	26.7	133	70-130	M1
Chlorobenzene	ug/L	ND	20	24.1	121	70-146	
Chloroethane	ug/L	ND	20	22.9	115	70-130	
Chloroform	ug/L	ND	20	25.8	129	70-130	
Chloromethane	ug/L	ND	20	16.0	80	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	23.6	118	70-130	
Dibromomethane	ug/L	ND	20	22.6	113	70-130	
Dichlorodifluoromethane	ug/L	ND	20	19.4	97	70-130	
Ethylbenzene	ug/L	0.0052 mg/L	20	29.9	123	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	24.8	124	70-130	
Isopropylbenzene (Cumene)	ug/L	ND	20	25.8	127	70-130	
m&p-Xylene	ug/L	0.013 mg/L	40	63.3	125	70-130	
Methylene Chloride	ug/L	ND	20	15.8	79	70-130	
n-Butylbenzene	ug/L	ND	20	23.0	115	70-130	
n-Propylbenzene	ug/L	ND	20	23.5	115	70-130	
Naphthalene	ug/L	0.0036 mg/L	20	25.9	112	70-130	
o-Xylene	ug/L	0.011 mg/L	20	34.9	120	70-130	
p-Isopropyltoluene	ug/L	ND	20	21.9	108	70-130	
sec-Butylbenzene	ug/L	ND	20	22.7	113	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

MATRIX SPIKE SAMPLE: 1636344

Parameter	Units	92280540008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	ND	20	24.6	123	70-130	
tert-Butylbenzene	ug/L	ND	20	18.2	91	70-130	
Tetrachloroethene	ug/L	ND	20	23.4	117	70-130	
Toluene	ug/L	0.0087 mg/L	20	34.0	127	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.4	117	70-130	
Trichloroethene	ug/L	ND	20	25.4	127	69-151	
Trichlorofluoromethane	ug/L	ND	20	25.2	126	70-130	
Vinyl chloride	ug/L	ND	20	22.1	111	70-130	
1,2-Dichloroethane-d4 (S)	%				105	70-130	
4-Bromofluorobenzene (S)	%				109	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1636345

Parameter	Units	92280540010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	0.45J		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	0.0017 mg/L	1.8	5	30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

SAMPLE DUPLICATE: 1636345

Parameter	Units	92280540010 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	0.012 mg/L	11.9	2	30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	0.24J		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	0.37J		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	108	1		
4-Bromofluorobenzene (S)	%	110	111	1		
Toluene-d8 (S)	%	101	101	0		

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34912 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280507007, 92280507008, 92280507023

METHOD BLANK: 1636739 Matrix: Water
Associated Lab Samples: 92280507007, 92280507008, 92280507023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/24/15 01:13	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/24/15 01:13	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/24/15 01:13	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/24/15 01:13	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/24/15 01:13	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/24/15 01:13	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/24/15 01:13	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/24/15 01:13	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/24/15 01:13	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/24/15 01:13	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.31	12/24/15 01:13	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/24/15 01:13	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/24/15 01:13	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/24/15 01:13	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/24/15 01:13	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/24/15 01:13	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.36	12/24/15 01:13	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/24/15 01:13	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/24/15 01:13	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/24/15 01:13	
1,4-Dioxane (p-Dioxane)	ug/L	ND	150	78.4	12/24/15 01:13	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/24/15 01:13	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/24/15 01:13	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/24/15 01:13	
Benzene	ug/L	ND	1.0	0.25	12/24/15 01:13	
Bromobenzene	ug/L	ND	1.0	0.30	12/24/15 01:13	
Bromochloromethane	ug/L	ND	1.0	0.17	12/24/15 01:13	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/24/15 01:13	
Bromoform	ug/L	ND	1.0	0.26	12/24/15 01:13	
Bromomethane	ug/L	ND	2.0	0.29	12/24/15 01:13	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/24/15 01:13	
Chlorobenzene	ug/L	ND	1.0	0.23	12/24/15 01:13	
Chloroethane	ug/L	ND	1.0	0.54	12/24/15 01:13	
Chloroform	ug/L	ND	1.0	0.14	12/24/15 01:13	
Chloromethane	ug/L	ND	1.0	0.11	12/24/15 01:13	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/24/15 01:13	
Dibromomethane	ug/L	ND	1.0	0.21	12/24/15 01:13	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/24/15 01:13	
Ethylbenzene	ug/L	ND	1.0	0.30	12/24/15 01:13	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/24/15 01:13	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.40	12/24/15 01:13	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

METHOD BLANK: 1636739 Matrix: Water
Associated Lab Samples: 92280507007, 92280507008, 92280507023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	2.0	0.66	12/24/15 01:13	
Methylene Chloride	ug/L	ND	2.0	0.97	12/24/15 01:13	
n-Butylbenzene	ug/L	ND	1.0	0.41	12/24/15 01:13	
n-Propylbenzene	ug/L	ND	1.0	0.42	12/24/15 01:13	
Naphthalene	ug/L	ND	1.0	0.24	12/24/15 01:13	
o-Xylene	ug/L	ND	1.0	0.23	12/24/15 01:13	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/24/15 01:13	
sec-Butylbenzene	ug/L	ND	1.0	0.38	12/24/15 01:13	
Styrene	ug/L	ND	1.0	0.26	12/24/15 01:13	
tert-Butylbenzene	ug/L	ND	1.0	0.40	12/24/15 01:13	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/24/15 01:13	
Toluene	ug/L	ND	1.0	0.26	12/24/15 01:13	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/24/15 01:13	
Trichloroethene	ug/L	ND	1.0	0.47	12/24/15 01:13	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/24/15 01:13	
Vinyl chloride	ug/L	ND	1.0	0.62	12/24/15 01:13	
1,2-Dichloroethane-d4 (S)	%	105	70-130		12/24/15 01:13	
4-Bromofluorobenzene (S)	%	106	70-130		12/24/15 01:13	
Toluene-d8 (S)	%	101	70-130		12/24/15 01:13	

LABORATORY CONTROL SAMPLE: 1636740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.2	102	70-130	
1,1,1-Trichloroethane	ug/L	50	54.5	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.4	101	70-130	
1,1,2-Trichloroethane	ug/L	50	48.8	98	70-130	
1,1-Dichloroethane	ug/L	50	49.2	98	70-130	
1,1-Dichloroethene	ug/L	50	50.8	102	70-132	
1,1-Dichloropropene	ug/L	50	55.7	111	70-130	
1,2,3-Trichlorobenzene	ug/L	50	49.7	99	70-135	
1,2,3-Trichloropropane	ug/L	50	49.2	98	70-130	
1,2,4-Trichlorobenzene	ug/L	50	49.3	99	70-134	
1,2,4-Trimethylbenzene	ug/L	50	49.7	99	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	49.3	99	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	49.6	99	70-130	
1,2-Dichlorobenzene	ug/L	50	48.2	96	70-130	
1,2-Dichloroethane	ug/L	50	45.6	91	70-130	
1,2-Dichloropropane	ug/L	50	48.8	98	70-130	
1,3,5-Trimethylbenzene	ug/L	50	49.8	100	70-130	
1,3-Dichlorobenzene	ug/L	50	50.1	100	70-130	
1,3-Dichloropropane	ug/L	50	48.6	97	70-130	
1,4-Dichlorobenzene	ug/L	50	51.1	102	70-130	
1,4-Dioxane (p-Dioxane)	ug/L	1000	1310	131	71-125	L0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

LABORATORY CONTROL SAMPLE: 1636740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	53.4	107	58-145	
2-Chlorotoluene	ug/L	50	51.8	104	70-130	
4-Chlorotoluene	ug/L	50	50.5	101	70-130	
Benzene	ug/L	50	49.5	99	70-130	
Bromobenzene	ug/L	50	51.5	103	70-130	
Bromochloromethane	ug/L	50	50.2	100	70-130	
Bromodichloromethane	ug/L	50	53.0	106	70-130	
Bromoform	ug/L	50	42.1	84	70-130	
Bromomethane	ug/L	50	36.4	73	54-130	
Carbon tetrachloride	ug/L	50	57.3	115	70-132	
Chlorobenzene	ug/L	50	50.5	101	70-130	
Chloroethane	ug/L	50	45.6	91	64-134	
Chloroform	ug/L	50	53.1	106	70-130	
Chloromethane	ug/L	50	38.5	77	64-130	
cis-1,2-Dichloroethene	ug/L	50	48.6	97	70-131	
Dibromomethane	ug/L	50	50.2	100	70-131	
Dichlorodifluoromethane	ug/L	50	50.4	101	56-130	
Ethylbenzene	ug/L	50	51.7	103	70-130	
Hexachloro-1,3-butadiene	ug/L	50	64.2	128	70-130	
Isopropylbenzene (Cumene)	ug/L	50	54.0	108	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methylene Chloride	ug/L	50	40.0	80	63-130	
n-Butylbenzene	ug/L	50	51.8	104	70-130	
n-Propylbenzene	ug/L	50	50.8	102	70-130	
Naphthalene	ug/L	50	50.7	101	70-138	
o-Xylene	ug/L	50	51.1	102	70-130	
p-Isopropyltoluene	ug/L	50	49.1	98	70-130	
sec-Butylbenzene	ug/L	50	51.9	104	70-130	
Styrene	ug/L	50	52.4	105	70-130	
tert-Butylbenzene	ug/L	50	40.7	81	70-130	
Tetrachloroethene	ug/L	50	49.4	99	70-130	
Toluene	ug/L	50	53.4	107	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.8	98	70-130	
Trichloroethene	ug/L	50	53.2	106	70-130	
Trichlorofluoromethane	ug/L	50	54.1	108	62-133	
Vinyl chloride	ug/L	50	50.1	100	50-150	
1,2-Dichloroethane-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			110	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

QC Batch: MSV/34816 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV SIM
Associated Lab Samples: 92280507001, 92280507002, 92280507003, 92280507004, 92280507005, 92280507006, 92280507007, 92280507008

METHOD BLANK: 1634017 Matrix: Water
Associated Lab Samples: 92280507001, 92280507002, 92280507003, 92280507004, 92280507005, 92280507006, 92280507007, 92280507008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	1.9	12/20/15 13:13	
1,2-Dichloroethane-d4 (S)	%	105	50-150		12/20/15 13:13	
Toluene-d8 (S)	%	96	50-150		12/20/15 13:13	

LABORATORY CONTROL SAMPLE: 1634018

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.4	92	71-125	
1,2-Dichloroethane-d4 (S)	%			104	50-150	
Toluene-d8 (S)	%			95	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1634019 1634020

Parameter	Units	92280269005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	0.019 mg/L	20	20	34.4	32.5	77	67	50-150	6	30	
1,2-Dichloroethane-d4 (S)	%						103	104	50-150		150	
Toluene-d8 (S)	%						96	97	50-150		150	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TK LOUISVILLE, GA 6122090322
Pace Project No.: 92280507

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280507001	**MW-27-121515**	EPA 8260	MSV/34886		
92280507002	**MW-28-121515**	EPA 8260	MSV/34886		
92280507003	**MW-20-121515**	EPA 8260	MSV/34891		
92280507004	**MW-25-121615**	EPA 8260	MSV/34891		
92280507005	**MW-19-121615**	EPA 8260	MSV/34891		
92280507006	**MW-14-121615**	EPA 8260	MSV/34891		
92280507007	**MW-5-121615**	EPA 8260	MSV/34912		
92280507008	**DUP-01-121615**	EPA 8260	MSV/34912		
92280507009	**MW-22-121515**	EPA 8260	MSV/34886		
92280507010	**MASON BRANCH#2-121515**	EPA 8260	MSV/34886		
92280507011	**SEEP-H-121515**	EPA 8260	MSV/34886		
92280507012	**SEEP-G-121515**	EPA 8260	MSV/34901		
92280507013	**SEEP#2-121515**	EPA 8260	MSV/34901		
92280507014	**SEEP-B-121515**	EPA 8260	MSV/34862		
92280507015	**MW-10-121515**	EPA 8260	MSV/34862		
92280507016	**MW-3-121515**	EPA 8260	MSV/34862		
92280507017	**SEEP-L-121615**	EPA 8260	MSV/34862		
92280507018	**MB#5-121515**	EPA 8260	MSV/34862		
92280507019	**MB#16-121615**	EPA 8260	MSV/34862		
92280507020	**SEEP-I-121615**	EPA 8260	MSV/34862		
92280507021	**MB#3-121615**	EPA 8260	MSV/34862		
92280507022	**MB#15-121615**	EPA 8260	MSV/34862		
92280507023	**DRUM COMPOSITE-121615**	EPA 8260	MSV/34912		
92280507024	**TRIP BLANK**	EPA 8260	MSV/34862		
92280507001	**MW-27-121515**	EPA 8260B Mod.	MSV/34816		
92280507002	**MW-28-121515**	EPA 8260B Mod.	MSV/34816		
92280507003	**MW-20-121515**	EPA 8260B Mod.	MSV/34816		
92280507004	**MW-25-121615**	EPA 8260B Mod.	MSV/34816		
92280507005	**MW-19-121615**	EPA 8260B Mod.	MSV/34816		
92280507006	**MW-14-121615**	EPA 8260B Mod.	MSV/34816		
92280507007	**MW-5-121615**	EPA 8260B Mod.	MSV/34816		
92280507008	**DUP-01-121615**	EPA 8260B Mod.	MSV/34816		

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Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: 26OCT2015 Page 1 of 2
	Document No.: F-CHR-CS-003-rev.17	Issuing Authority: Pace Huntersville Quality Office

Sample Condition Upon Receipt

Client Name: AMEC Foster Wheeler **Project #:** WO# : 92280507

92280507

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:_____

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other:_____

Thermometer Used: ☒ T1505 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.2 **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Correction Factor:** 0.0 °C **Date and Initials of Person Examining Contents:** 12.18

USDA Regulated Soil (☒ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☒ Yes	☐ No	☐ N/A	12. Received a Trip Blank that was not documented on the COC
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	☐ Yes	☐ No	☒ N/A	
Samples checked for dechlorization	☐ Yes	☐ No	☒ N/A	14.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☒ No	☐ N/A	15.
Trip Blank Present?	☒ Yes	☐ No	☐ N/A	16.
Trip Blank Custody Seals Present?	☒ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Rhonda Quinn Date/Time: 12/21/15

Comments/Resolution: E-mailed Mrs Quinn regarding Trip Blank. Mrs Quinn responded requesting we run the Trip Blank.

Project Manager SCURF Review: DB **Date:** 12/18/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

1996134

Section A Required Client Information:

Company:	AMEC Foster Wheeler
Address:	1075 Big Shanty Rd. Ste 100 Kennesaw, GA 30144
Email To:	rhonda.quinn@amec.com
Phone:	770-421-3400 Fax: 770-421-3486
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	Rhonda Quinn
Copy To:	Michelle Barker
Purchase Order No.:	
Project Name:	TK Louisville, GA
Project Number:	6122090322

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: 8260 + 1,4 dioxane	Sim 1,4 dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-22-121515	WT	G			12-15-15	11:07		3				✓					✓			92280507 009
2	MW-27-121515	↓	↓			↓	12:14		6				✓					✓	✓		001
3	MW-28-121515						12:43		6				✓					✓	✓		002
4	Mason Branch#2-121515						1:50		3				✓					✓			010
5	Seep-H-121515						2:05		3				✓					✓			011
6	Seep-G-121515						2:20		3				✓					✓			012
7	Seep#2-121515						2:35		3				✓					✓			013
8	Seep-B-121515						2:50		3				✓					✓			014
9	MW-10-121515						11:48		3				✓					✓			015
10	MW-3-121515						1430		3				✓					✓			016
11	MW-20-121515					↓	1735		6				✓					✓	✓		003
12	MW-25-121615	↓	↓			12-16-15	11:52		6				✓					✓	✓		004

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	AMEC	12-17-15	1400		12/17/15	1020	6.2	Y	N	Y
Pace Order #96571										

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jeff Moore

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12-17-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

1996135

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AMEC Foster Wheeler	Report To: Rhonda Quinn	Attention:
Address: 1075 Big Shanty Rd. Ste100 Kennesaw, GA 30144	Copy To: Michelle Barker	Company Name:
		Address:
Email To: rhonda.quinn@amec.com	Purchase Order No.:	Pace Quote Reference:
Phone: 770-421-3400 Fax: 770-421-3486	Project Name: TK Louisville, GA	Pace Project Manager: Kevin Godwin
Requested Due Date/TAT: Standard	Project Number: 6122090322	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: GA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test: 8260+1,4 Dioxane	Sim 1,4 Dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		N	N			
1	Seep-L-121615	WT	G			12-16-15	12:30		3				✓					✓				92280507 017
2	MB#5-121615						12:55		3				✓					✓				018
3	MB#16-121615						1:07		3				✓					✓				019
4	Seep-I-121615						1:20		3				✓					✓				020
5	MB#3-121615						1:56		3				✓					✓				021
6	MB#15-121615						2:10		3				✓					✓				022
7	MW-19-121615						11:50		6				✓					✓	✓			005
8	MW-14-121615						1420		6				✓					✓	✓			006
9	MW-5-121615						1600		6				✓					✓	✓			007
10	DUP-01-121615						1200		6				✓					✓	✓			008
11	Drum Composite-121615						4:10		3				✓					✓				023
12	Trip Blank																					024 Trip Blank

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	AMEC	12-17-15	1400		12-17-15	1530	4.2	Y	N	Y
Pace Order# 96571										

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jeff Moore

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12-17-15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

APPENDIX D

MODELING CONTAMINANT MIGRATION IN THE UPPERMOST WATER-BEARING ZONE

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D1.0 MODELING CONTAMINANT MIGRATION IN THE UPPERMOST WATER BEARING ZONE

Groundwater in the UWBZ flows from west to east, from the western site boundary, beneath the former manufacturing building, and towards Manson Branch. The most recent potentiometric map of groundwater flow in the UWBZ is presented in the Status Report No. 10 (Appendix B). UWBZ flow is interrupted west of Manson Branch where historic erosional processes cut down through the UWBZ into more erosion-resistant clays. The erosional processes then created a several hundred foot wide "valley" floor where Manson Branch now flows. As a result of these erosional processes, the sandy stratum in which groundwater flows, the UWBZ, was truncated, discharging groundwater to seeps along the side and at the base of the sloping valley side. From the seeps, flow continues to the east as intermittent and interrupted surface flow within the thin colluvial/alluvial soils that form the valley floor. Ultimately, UWBZ water expressed in seeps and then as discontinuous flow through the valley-bottom soils discharges into Manson Branch. This flow path is illustrated on Figures 3.0-2 and 3.0-3.

"Conventional" fate and transport modeling of the Uppermost Zone is not feasible due to the relative complexity of the groundwater flow regimes as described above. Alternatively, a basic approach has been presented describing the movement of water and associated contaminants in the UWBZ and to demonstrate that the discharge of contaminants into Manson Branch will not result in impacts exceeding instream-water quality criteria (ISWQC).

In the September 10, 2012 responses to EPD Comment # 3, the average annual stream flow for Manson Branch in the area was calculated as being 2.4 million gallons per day (mgd). Then, using site-specific data to calculate the discharge volume from the area where UWBZ groundwater has been impacted and the most recent TCE concentrations in the UWBZ well located closest to the area of discharge to the seeps (MW-19), the mass of TCE, the major COC, discharging daily from the UWBZ was calculated. It was then assumed that this mass was discharged directly into Manson Branch; the impact to Manson Branch was assessed and determined to be well below the ISWQC for TCE.

In the following paragraphs, the most recent (2015) groundwater quality data is used to revise the 2012 mass calculations. As requested in EPD's January 28, 2016 comments, the sources of the

data and physical UWBZ dimensions used in the calculations are provided. Additionally, potential future impacts of TCE daughter products at Manson Branch and the maximum allowable concentrations of TCE and daughter products that will not result in an exceedance of the constituent ISWQC are calculated.

D2.0 MODEL PARAMETERS

1. Constituent concentrations in UWBZ monitoring wells, in the seeps, and in Manson Branch are presented on Tables 2 and 3 in Status Report No. 10, attached as Appendix B of this CSR. The most recent concentrations (December 2015) reported at monitoring well MW-19 are shown below. MW-19 was selected for modeling because it is the UWBZ well located near upslope of the discharges to the seeps and because UWBZ constituent concentrations have historically been higher in this well than in other UWBZ wells.

TCE	Cis-1,2	1,1-DCE	VC	1,1-DCA
1720	<20	<20	<20	<20

2. The most recent (December 2015) constituent concentrations reported in the 7 seeps being monitored in accordance with the VRIP are:

Seep	TCE	Cis-1,2	1,1-DCE	1,1-DCA	VC	Toluene
MB #2	<1.0	6.8	<1.0	3.1	30.6	<1.0
Seep H	275	40.1	30.7	<1.0	<1.0	<1.0
Seep #2	6.9	8.1	1.0	<1.0	<1.0	<1.0
Seep L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Seep G	<1.0	11	1.2	<1.0	<1.0	<1.0
Seep B	1.5	7.9	<1.0	<1.0	<1.0	1.7
Seep I	<1.0	1.1	<1.0	<1.0	<1.0	<1.0

3. The most recent concentrations reported in colluvial/alluvial wells MW-27 and MW -28 are:

Well	TCE	Cis-1,2	1,1-DCE	1,1-DCA	VC	Toluene
MW -27	8.2	26.6	2.5	<1.0	<1.0	<1.0
MW -28	6.3	26.6	3.1	<1.0	<1.0	<1.0

4. The total drainage area of Manson Branch where it passes the Thermo King site is 4.1 square miles, or 2624 acres. The annual average stream flow yield for streams in this area of the State is 0.9 cfs per square mile based on the average annual runoff map in USGS Open File Report 82-557 - and from which the mean annual flow can be determined for any stream within the State (http://pubs.usgs.gov/of/1982/ofr82-557/). Thus, the long-term annual average stream flow for Manson Branch at the Thermo King site is 3.7 cubic feet per second (cfs) (i.e., 0.9 cfs per square mile x 4.1 square miles = 3.7 cfs) or 2.4 mgd.

5. Groundwater elevations in site monitoring wells are presented on Table 1 of Status Report No. 10. In December 2015, the groundwater elevation in MW-19 was 281.08 feet. Reviewing Table 1 water level results, this elevation is consistent with elevations recorded during the 10 sampling events conducted under the VRP. The MW-19 test boring record shows the bottom of the UWBZ to be at approximate elevation 263.4 feet. The resulting saturated thickness of the UWBZ in December is 17.7 feet. This saturated thickness was used in the mass discharge calculations.

6. The isoconcentration map of TCE in the UWBZ (Figure 4.9 in the December 2010 Application Addendum) shows the width of the TCE plume to be about 600 feet at the point where the Uppermost zone is truncated and groundwater discharges to seeps. While the width of the core of the plume where TCE concentrations are higher (generally exceeding 1000 µg/L) is more on the order of 250 to 300 feet, the broader plume width of 600 feet was conservatively used in the mass discharge calculations.

7. The gradient of groundwater flow in the UWBZ is used in the calculation of discharge mass. The UWBZ gradient calculated from water levels recorded in December 2015 is 0.0043 ft/ft (see Status Report No. 10).

8. Slug tests were conducted in 2000, 2003, and 2010 and reported on Table 4.1 in the 2007 Revised CSR and December 2010 Application Addendum. A median hydraulic conductivity of 1.08 ft/day was used in calculating the discharge mass from the UWBZ.

The input parameters described above were used to calculate the discharge mass, initially of TCE, from the UWBZ. Assuming a worst case scenario of the mass being discharged directly from the UWBZ into Manson Branch, the impact of TCE to Manson Branch assuming Manson Branch flow of 2.4 mgd, would be 0.26 µg/L vs. an ISWQC for TCE of 30 µg/L. Similarly, calculations show that a concentration of 195,718 µg/L in MW-19 groundwater would be required to produce a TCE concentration in Manson Branch at its ISWQC of 30 µg/L (**Figure D2.1**). This concentration (195,718 µg/L) exceeds any TCE concentration currently or previously detected in site groundwater. Accordingly, potential migration of TCE-impacted groundwater at concentration that would result in an exceedance of ISWQC in Manson Branch is very unlikely.

D3.0 DAUGHTER PRODUCTS

Thermo King then addressed the potential future impact of regulated TCE daughter products in seeps and to Manson Branch. As previously discussed, the potential impacts to seeps and to the migration pathway from the seeps through the colluvial/alluvial soils to Manson Branch is influenced by a number of variables, including dilution (rainfall, Manson Branch overflow), volatilization, temperature, and organic content of the colluvial/alluvial soils. These variables make selection of parameters for calculating future contaminant concentrations between the point of discharge of groundwater from the UWBZ and Manson Branch very difficult to quantify. Therefore, the potential impact of regulated daughter products was addressed in the same manner as was the assessment of TCE impacts to Manson Branch. For the regulated daughter products, however, the constituent concentrations as reported in December 2015 in UWBZ well MW-19 were all converted to the concentration of a specific daughter product by converting from mass concentrations (µg/L) to their equivalent molar concentrations (umol/L) based on their molecular weight g/mol. The molar concentrations were then summed to give total molar concentration. This value was back-converted to maximum possible mass concentrations for a particular chemical (such as vinyl chloride) again using the molecular weight. Then, similar to the approach followed for TCE, the calculated contaminant concentration for this daughter product was discharged directly into Manson Branch to observe if the ISWQC for that constituent was exceeded.

This process was conducted for vinyl chloride as presented on the attached **Figures D3.1 to D3.3**. After converting the MW-19 constituents to their equivalent vinyl chloride concentration (818 µg/L; **Figure D3.1**) (Note: only TCE was detected in the December 2015 MW-19 sample), it was calculated that the resulting concentration of vinyl chloride in Manson Branch would be 0.125 µg/L, below the vinyl chloride ISWQC of 2.4 µg/L (**Figure D3.2**). The process was then continued to calculate the concentration of vinyl chloride in the discharge to Manson Branch (15,700 µg/L) that would result in Manson Branch being impacted at its ISWQC. Finally, the concentration of TCE, the only constituent detected in the December 2015 MW-19 sample, equivalent to 15,700 µg/L of vinyl chloride was calculated (32,900 µg/L; **Figure D3-3**). This TCE concentration exceeds current or past concentrations detected in site groundwater, indicating that the potential migration of impacted groundwater at concentrations that would exceed the ISWQC for vinyl chloride is very unlikely.

The ISWQC for 1,1-DCE is 7100 µg/L. This concentration far exceeds current or past 1,1-DCE concentrations in site monitoring wells. Therefore, the potential impact of 1,1-DCE in groundwater at concentrations that would exceed its ISWQC is also very unlikely.

In summary, modeling of the migration of contaminants in the Uppermost water-bearing zone has shown that the discharge of groundwater from this UWBZ will not result in impacts to Manson Branch for TCE or regulated daughter products that will exceed their respective ISWQC.

FIGURES

FIGURE D2.1: CALCULATION OF TCE IMPACT TO MASON BRANCH DUE TO DIRECT DISCHARGE FROM UWBZ (MW-19) - DECEMBER 2015

(1) Groundwater Volumetric Calculation
Q=KA(dh/dl)
Q = volume of water moving through cross-sectional area in ft^3/day
K = hydraulic conductivity of the saturated material groundwater is moving through in ft/day
A = cross-sectional area (length x saturated thickness) in ft^2
dh/dl = linear gradient in ft/ft

	MW-1	MW-4	MW-10
Hydraulic conductivity of UWBZ	0.0012	0.0007	0.0005
	ft/min	ft/min	ft/min

	Geometric Mean	K in UWBZ
-6.72543	0.000749 ft/min	1.08 ft/day
-7.26443		
-7.6009		
-21.5908		
-7.19692		

A = cross-sectional area (length x saturated thickness) in ft^2

Length Estimated that TCE discharges along hillside:
Distance between 100 ug/L contour near GW-E-9 to 100 ug/L concentration contour to the south on TCE Isoconcentration map: 600 ft

Saturated thickness of UWBZ at MW-19 in ft from Hydrogeologic Profile A-A': 17.7 ft

A1= 600 ft x 17.7 ft = 10620 ft^2

dh/dl = linear gradient in ft/ft potentiometric map December 2015: 0.0043 ft/ft (Average)

Q=KA(dh/dl)

Q1= 1.08 ft/day x 10620 ft^2 x 0.0043 ft/ft = 49.25 ft^3/day = **368.4 gals/day**

TCE concentration: MW-19 12/1/2016 1720 ug/L

Conversion of TCE ug/L to pounds:

Conversion of TCE ug/L to pounds: 1,720 ug/L x (1 mg / 1000 ug) x (1 gm / 1000 mg) x (1 lb / 453.6 gm) x (1 L / 0.2642 gal) x 368.4 gallons estimated to be moving along UWBZ per day (1)

Pounds of TCE potentially discharging to seeps		
Area = 12000 ft^2	0.005	pounds per day

TCE concentration in 2.4 mgd: 0.005 lbs/d / 2,400,000 gal/d x (453.6 g / 1 lbs) x (1,000,000 ug / 1 g) x (1 gal / 3.79 L) = **0.26** ug/L TCE impact to Manson Branch

What TCE concentration in UWBZ (MW-19) would be required to impact Manson Branch at its ISWQC

December 2015 UWBZ (MW-19) TCE concentration	Impact to Manson Branch	UWBZ MW-19 concentration of TCE Required to impact Manson Branch ≥ ISWQC
1720 ug/L	0.26 ug/L	195718 ug/L

Notes:
ft = feet
ft^2 = square feet
ft/day = feet per day
ft/ft = feet per foot
ug/L = micrograms per liter
mg = milligrams
gm = grams
lb = pounds
gal = gallons

Prepared by: NJM 2/5/16
Checked by: ADA 3/3/2016

FIGURE D3.1: Theoretical Total Molar Conversion of TCE to Vinyl Chloride

mass concentration (all must be in same units - umg/L, mg/L, etc. then molar concentration are umol/L, mmol/L, etc.)	Chemical	molecular weight	molar concentration	molar concentration	Chemical	molecular weight	mass concentration (all must be in same units - umg/L, mg/L, etc. then molar concentration are umol/L, mmol/L, etc.)
0	PCE	165.83	0		PCE	165.83	0
1720	TCE	131.39	13.09079839		TCE	131.39	0
0	c12DCE	96.94	0		c12DCE	96.94	0
0	t12DCE	96.94	0		t12DCE	96.94	0
0	11DCE	96.94	0		11DCE	96.94	0
0	VC	62.498	0	13.0908	VC	62.498	818.1
	sum of chlorinated ethenes		13.09079839				
Chlorinated ethanes							
0	1122 tetrachloroethane	167.85	0				
0	111TCA	133.4	0				
0	112TCA	133.4	0				
0	12DCA	98.96	0				
0	11DCA	98.96	0				
	sum of chlorinated ethanes		0				

FIGURE D3.2: CALCULATION OF VC IMPACT TO MASON BRANCH DUE TO DIRECT DISCHARGE FROM UWBZ (MW-19) - DECEMBER 2015

(1) Groundwater Volumetric Calculation
Q=KA(dh/dl)
Q = volume of water moving through cross-sectional area in ft^3/day
K = hydraulic conductivity of the saturated material groundwater is moving through in ft/day
A = cross-sectional area (length x saturated thickness) in ft^2
dh/dl = linear gradient in ft/ft

	MW-1	MW-4	MW-10
Hydraulic conductivity of UWBZ	0.0012	0.0007	0.0005
	ft/min	ft/min	ft/min

	Geometric Mean	K in UWBZ
-6.72543	0.000749 ft/min	1.08 ft/day
-7.26443		
-7.6009		
-21.5908		
-7.19692		

A = cross-sectional area (length x saturated thickness) in ft^2

Length Estimated that VC discharges along hillside:

Distance between 100 ug/L contour near GW-E-9 to 100 ug/L concentration contour to the south on VC Isoconcentration map 600 ft

Saturated thickness of UWBZ at MW-19 in ft from Hydrogeologic Profile A-A'
17.7 ft
A1= 600 ft x 17.7 ft = 10620 ft^2

dh/dl = linear gradient in ft/ft potentiometric map December 2015
0.0043 ft/ft (Average)

Q=KA(dh/dl)

Q1= 1.08 ft/day x 10620 ft^2 x 0.0043 ft/ft = 49.25 ft^3/day = 368.4 gals/day

Maximum Estimated VC concentration: MW-19 12/1/2016 818 ug/L

Conversion of VC ug/L to pounds:

Conversion of VC ug/L to pounds: 818 ug/L x 1 mg / 1000 ug x 1 gm / 1000 mg x 1 lb / 453.6 gm x 1 L / 0.2642 gal x 368.4 gallons estimated to be moving along UWBZ per day (1)

Pounds of VC potentially discharging to seeps Area = 12000 ft^2	0.0025	pounds per day

VC concentration in 2.4 mgd 0.0025 lbs/d / 2,400,000 gal/d x 453.6 g / 1 lbs x 1,000,000 ug / 1 g x 1 gal / 3.79 L = **0.125** ug/L VC impact to Manson Branch

What VC concentration in UWBZ (MW-19) would be required to impact Manson Branch at its ISWQC

December 2015 UWBZ (MW-19) VC concentration	Impact to Manson Branch	UWBZ MW-19 concentration of VC Required to impact Manson Branch ≥ ISWQC
818 ug/L	0.125 ug/L	15657 ug/L

Notes:
ft = feet
ft^2 = square feet
ft/day = feet per day
ft/ft = feet per foot
ug/L = micrograms per liter
mg = milligrams
gm = grams
lb = pounds
gal = gallons

Prepared by: NJM 2/9/16
Checked by: ADA 3/3/2016

FIGURE D3.3: Theoretical Total Molar Conversion of Vinyl Chloride Back to TCE

mass concentration (all must be in same units - umg/L, mg/L, etc. then molar concentration are umol/L, mmol/L, etc.)	Chemical	molecular weight	molar concentration	molar concentration	Chemical	molecular weight	mass concentration (all must be in same units - umg/L, mg/L, etc. then molar concentration are umol/L, mmol/L, etc.)
0	PCE	165.83	0	0	PCE	165.83	0.0
0	TCE	131.39	0	250.52	TCE	131.39	32,915.8
0	c12DCE	96.94	0	0	c12DCE	96.94	0.0
0	t12DCE	96.94	0	0	t12DCE	96.94	0.0
0	11DCE	96.94	0	0	11DCE	96.94	0.0
15,657	VC	62.498	250.5200166	0	VC	62.498	0.0
	sum of chlorinated ethenes		250.5200166				
Chlorinated ethanes							
0	1122 tetrachloroethane	167.85	0	0	1122 tetrachloroethane	167.85	0.0
0	111TCA	133.4	0	0	111TCA	133.4	0.0
0	112TCA	133.4	0	0	112TCA	133.4	0.0
0	12DCA	98.96	0	0	12DCA	98.96	0.0
0	11DCA	98.96	0	0	11DCA	98.96	0.0
				0			
	sum of chlorinated ethanes		0				
				250.52	check sum on total moles		

APPENDIX E

RESULTS OF THE GROUNDWATER FATE AND TRANSPORT MODELING OF THE INTERMEDIATE WATER-BEARING ZONE

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E1.0 INTRODUCTION

The future fate and transport of the constituents of concern (COCs) in the Intermediate Water-Bearing Zone underlying the Thermo King Corporation site in Louisville, Georgia (the Site) was modeled using software program BIOCHLOR. This fate and transport model, developed for and approved by the U.S. Environmental Protection Agency (USEPA; Aziz et al., 2000; Aziz, Newel and Gonzales, 2002) is therefore appropriate for determining compliance with site-specific cleanup standards as stated in Georgia Voluntary Remediation Program Act (Part 3, 12-8-108). The software, programmed in the Microsoft© Excel spreadsheet environment and based on the widely utilized Domenico analytical solute transport model (Domenico, 1987), has the ability to simulate one-dimensional advection, 3-dimensional dispersion, linear adsorption, and biotransformation via reductive dechlorination, the dominant biotransformation process at most chlorinated solvent sites (Sun and Clement, 1999; Sun et al., 1999). The reductive dechlorination of the parent solvent to daughter product is assumed to be a first-order process. The daughter products are produced by the first-order degradation of the preceding parent compound. Therefore, the daughter product can simultaneously undergo both production and degradation in the model area. The COCs at the Site are trichloroethene (TCE) released as source material and its degradation products cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC).

The model predicts the maximum extent of dissolved-phase plume migration, which may then be compared to the distance to potential points of exposure (e.g., drinking water wells, groundwater discharge areas, or property boundaries). Analytical groundwater transport models have seen wide application for this purpose for over 15 years now (e.g., ASTM, 1995) and experience has shown such models can produce reasonably accurate and reliable results when site conditions in the plume area are relatively uniform. As stated by the U.S. EPA, BIOCHLOR allows groundwater remediation managers to identify sites where natural attenuation is most likely to be protective of human health and the environment.

BIOCHLOR is used to simulate the fate and transport of chlorinated solvents at the Site because of the clear evidence of biodegradation, namely a decrease of TCE concentrations downgradient of the source area and presence of the degradation (daughter) products of TCE, cis-1,2-DCE and VC. In addition to the daughter products, scoring of site-specific chemical analyses of a number of biotransformation parameters using the 1998 USEPA Natural

Attenuation Screening Protocol (Wiedemeier, T.H., et al.) within BIOCHLOR provides further evidence that biodegradation of the chlorinates solvents at the Site is occurring.(Table E1).

Table E1: BIOCHLOR Site-Specific Test of Biotransformation, USEPA Natural Attenuation Screening Protocol

Natural Attenuation Screening Protocol

The following is taken from the USEPA protocol (USEPA, 1998). The results of this scoring process have no regulatory significance.

Interpretation	Score
Inadequate evidence for anaerobic biodegradation* of chlorinated organics	0 to 5
Limited evidence for anaerobic biodegradation* of chlorinated organics	6 to 14
Adequate evidence for anaerobic biodegradation* of chlorinated organics	15 to 20
Strong evidence for anaerobic biodegradation* of chlorinated organics	>20

TO INPUT

Score: 13

Scroll to End of Table

* reductive dechlorination

Analysis	Concentration in Most Contam. Zone	Interpretation	Yes	No	Points Awarded
Oxygen*	<0.5 mg/L	Tolerated, suppresses the reductive pathway at higher concentrations	○	○	
	> 5mg/L	Not tolerated; however, VC may be oxidized aerobically	○	○	
Nitrate*	<1 mg/L	At higher concentrations may compete with reductive pathway	○	○	
Iron II*	>1 mg/L	Reductive pathway possible; VC may be oxidized under Fe(III)-reducing conditions	○	○	
Sulfate*	<20 mg/L	At higher concentrations may compete with reductive pathway	●	○	2
Sulfide*	>1 mg/L	Reductive pathway possible	○	○	
Methane*	>0.5 mg/L	Ultimate reductive daughter product, VC Accumulates	○	○	
Oxidation Reduction Potential* (ORP)	<50 millivolts (mV)	Reductive pathway possible	○	○	
	<-100mV	Reductive pathway likely	○	○	
pH*	5 < pH < 9	Optimal range for reductive pathway	●	○	0
TOC	>20 mg/L	Carbon and energy source; drives dechlorination; can be natural or anthropogenic	●	○	2
Temperature*	>20°C	At T >20°C biochemical process is accelerated	●	○	1
Carbon Dioxide	>2x background	Ultimate oxidative daughter product	○	○	
Alkalinity	>2x background	Results from interaction of carbon dioxide with aquifer minerals	○	○	
Chloride*	>2x background	Daughter product of organic chlorine	●	○	2
Hydrogen	>1 nM	Reductive pathway possible, VC may accumulate	○	○	
Volatile Fatty Acids	>0.1 mg/L	Intermediates resulting from biodegradation of aromatic compounds; carbon and energy source	○	○	
BTEX*	>0.1 mg/L	Carbon and energy source; drives dechlorination	○	●	0
PCE*		Material released	○	●	0
TCE*		Daughter product of PCE [a/]	○	●	0
DCE*		Daughter product of TCE. If cis is greater than 80% of total DCE it is likely a daughter product of TCE[a/]; 1,1-DCE can be a chem. reaction product of TCA	●	○	2
VC*		Daughter product of DCE[a/]	●	○	2
1,1,1-Trichloroethane*		Material released	●	○	0
DCA		Daughter product of TCA under reducing conditions	●	○	2
Carbon Tetrachloride		Material released	○	●	0
Chloroethane*		Daughter product of DCA or VC under reducing conditions	○	●	0
Ethene/Ethane	>0.01 mg/L	Daughter product of VC/ethene	○	○	
	>0.1 mg/L	Daughter product of VC/ethene	○	○	
Chloroform		Daughter product of Carbon Tetrachloride	○	●	0
Dichloromethane		Daughter product of Chloroform	○	○	

* required analysis.
a/ Points awarded only if it can be shown that the compound is a daughter product (i.e., not a constituent of the source NAPL).

TO INPUT | SCORE | Reset

E2.0 MODEL INPUT PARAMETERS

E2.1 GROUNDWATER VELOCITY

The representative seepage velocity of groundwater flow through the interstitial space of the porous media (aquifer matrix) is calculated by multiplying hydraulic conductivity with hydraulic gradient and dividing by effective porosity. As emphasized in the BIOCHLOR manual, it is strongly recommended that actual site data be used for hydraulic conductivity and hydraulic gradient data parameters whereas effective porosity can be estimated based on predominant soil type.

The site-specific hydraulic conductivity is 0.00175 cm/s, the geometric mean of slug test values from the four monitoring wells screened in the Intermediate aquifer, MW-14, MW-25, MW-20 and MW-22: 0.01067 cm/s, 0.00039 cm/s, 0.00106 cm/s, and 0.00214 cm/s, respectively (December 2007 Revised CSR Table 4.1 and December 2010 VRP Application Addendum Table 4.1). The geometric mean, rather than the arithmetic mean, is selected as the most probable value knowing that the hydraulic conductivity of an aquifer typically follows a log-normal probability distribution (Kresic, 2007).

The hydraulic gradient is 0.002, calculated as the average change in the hydraulic head between MW-14 and MW-22 recorded between September 2003 and December 2015 (see Table E2) divided by the distance between the two wells: (246.48-243.75) / 1355 = 0.002. Because of the minor presence of silt and clay, the effective porosity is estimated at 20%, or slightly less than typically used value of 25% for clean sands (Kresic, 2007)

Table E2: Determination of the Hydraulic Gradient Using Hydraulic Head Measured at Monitoring Wells MW-14 and MW-22

Date	GW Elevation (ft asl)	
	MW-14	MW-22
09/11/03	246.98	244.89
06/24/04	247.20	244.82
10/12/04	247.45	244.72
02/25/08	247.21	244.40
06/03/10	246.96	244.41
10/21/10	245.88	243.57

Date	GW Elevation (ft asl)	
	MW-14	MW-22
06/06/11	246.06	243.83
01/16/12	245.51	242.54
07/09/12	245.20	242.75
01/07/13	245.41	242.25
07/08/13	247.14	243.88
01/07/14	246.71	243.52
06/24/14	246.58	244.02
01/12/15	246.41	243.30
07/07/15	246.28	243.49
12/14/15	246.72	243.69
Average	**246.48**	**243.75**

Distance between MW-14 and MW-22 = 1355 ft
Hydraulic Gradient = (246.48 - 243.75) / 1355 = 0.002

The resulting representative seepage velocity used in the model is 18.1 ft/year.

E2.2 DISPERSION

Dispersion refers to the process by which a dissolved solvent will be spatially distributed longitudinally (along the direction of groundwater flow), transversely (perpendicular to groundwater flow), and vertically (downward) because of mechanical mixing and chemical diffusion in the aquifer. These processes develop the common plume shape that is the spatial distribution of the dissolved solvent mass in the aquifer. Selection of dispersivity values is a difficult process, given the impracticability of measuring dispersion in the field. However, simple estimation techniques based on the length of the plume are available from a compilation of field test data (Aziz et al., 2000). Based on the 2015 field data, the length of the longest COCs plume (cis-1,2-DCE) is estimated to be approximately 650 feet or some distance downgradient of the last monitoring well with any COC detection, MW-20 (see **Figure E-1**). The longitudinal dispersivity (alpha x) of 65 feet is estimated based on the default option in BIOCHLOR which assumes that alpha x is 10% of the estimated plume length. By default, the transverse dispersivity of 6.5 feet is estimated as being ten times lower than the longitudinal dispersivity. To

yield a conservative estimate of vertical dispersion, the default value used in BIOCHLOR is set to a very low number (1E-99).

E2.3 ADSORPTION

Adsorption to the soil matrix can reduce the concentration of dissolved contaminants moving through the groundwater. In BIOCHLOR this process is described with the retardation factor (R), the ratio of the groundwater seepage velocity to the rate that organic chemicals migrate in the groundwater. The degree of retardation depends on both aquifer and constituent properties. The model calculates R from the values of distribution (partition) coefficient for the solute (K_d), soil bulk density (ρ_b), effective porosity (n), organic carbon partition coefficients (K_{oc}), and soil fraction organic carbon (f_{oc}) using the following equation:

$$R = 1 + \frac{K_d \rho_b}{n}$$

where $K_d = K_{oc} \times f_{oc}$

The most recently published organic carbon partition coefficients (K_{oc}) for TCE, cis-1,2-DCE and VC at 20 ^oC are 61 L/kg, 40 L/kg and 22 L/kg respectively (USEPA, 2016). The aquifer matrix (soil) bulk density is estimated to be 1.7 kg/L (default value in BIOCHLOR), and the soil fraction organic carbon is overly conservatively estimated to be 0.001 even though USEPA recommends a default conservative value of 0.002 (USEPA, 1996). This USEPA recommendation for using value of 0.002 has also been adopted by Georgia Environmental Protection Division (GA EPD) as demonstrated in a number of VRP reviews conducted by the Agency (GA EPD, 2014a, 2014b, 2015). Based on the conservatively assumed values, the retardation factors for TCE, DCE and VC calculated by the model are 1.52 L/kg, 1.34 L/kg, and 1.19 L/kg respectively.

It should be noted that BIOCHLOR uses one common retardation factor for all the constituent and not the individual retardation factors for each constituent. As stated in the BICHLOR manual, the retardation factor is one of the parameters that can be adjusted during model calibration such that the modeling results reflect a better overall model calibration for all modeled constituents combined. In this model, the common value for R is selected to be

conservatively low, corresponding to the minimum calculated value of 1.19 L/kg for VC. This is significantly lower than 1.52 L/kg calculated for TCE and results in an over prediction of the rate at which TCE migrates downgradient of the source area. This overly conservative approach is selected because VC is the most mobile and toxic constituent of concern.

Notably, because of compounding of the assumed conservative values of various F&T parameters, the model-predicted concentrations of TCE and VC are higher than those observed in the field further downgradient of the source area, for both the calibration and verification model runs as explained further in the text.

E2.4 BIOTRANSFORMATION RATE CONSTANTS

The best approach for determining biotransformation rate constants is to calibrate BIOCHLOR to field data for a given sampling event (Aziz et al., 2000; Aziz, Newel and Gonzales, 2002). Rate constants are estimated by changing the rate constant for TCE degradation until the TCE predicted concentrations match the TCE field data. Then, the cis-1,2-DCE rate constant is adjusted until the cis-1,2-DCE predicted concentrations match the field data; the same is repeated for VC. In this way, site-specific rate constants are estimated, and the model is then considered calibrated for the given set of model input parameters including hydraulic conductivity, hydraulic gradient, sorption, and dispersion. Using the site-specific rate constants, predictive simulations can be conducted by increasing the simulation time to estimate future plume behavior (Aziz et al., 2000; Aziz, Newel and Gonzales, 2002).

To speed the calibration process, BIOCHLOR Version 2.2 incorporates the Buschek and Alcantar (1995) rate constant estimation method, which automatically provides an approximate calibration of the model to entered site-specific field data. The Buschek and Alcantar approach uses the following equations which assume 1-D dispersion, steady-state conditions, and biotransformation only in the aqueous phase:

$$C(x) = C_o \exp\left[\left(\frac{x}{2\alpha_x}\right)\left[1-\left(1+\frac{4\lambda\alpha_x}{v_s}\right)^{0.5}\right]\right]$$

$$m = \left(\frac{1}{2\alpha_x}\right)\left[1-\left(1+\frac{4\lambda\alpha_x}{v_s}\right)^{0.5}\right]$$

$$\lambda = \left[\frac{v_s}{4\alpha_x}\right]\left(\left[1-2\alpha_x m\right]^2 - 1\right)$$

where:
λ is the biotransformation rate constant (1/yr)
v_s is the seepage velocity (ft/yr)
α_x is the longitudinal dispersivity (ft)
m is the slope of the Ln concentration vs. distance (1/ft)
x is the distance downgradient (ft)
C_o is the initial concentration (mg/L)
C(x) is the concentration at distance x (mg/L)

Although this method has the potential to overestimate biotransformation rate constants by lumping the effects of lateral and vertical dispersion with biotransformation, it quickly yields a first approximation of the rate constants. These rate constant estimates can be manually refined subsequently. A minimum of four data points is required for rate constant determination. **Table E3** shows the site-specific information used for the model calibration as well as the biotransformation rate constants estimate. The four monitoring wells are aligned along the groundwater flowpath, i.e., downgradient from each other. MW-14 is the monitoring well closest to the likely source zone, and MW-22 is the farthest away.

Table E3 shows site-specific information used for model calibration; dissolved concentrations of constituents of concern are the highest observed in 2011. Where a constituent has been reported of being “less than the detection limit”, 1/2 of the constituent’s detection limit is used in the model.

Table E3: Site-Specific Information Used For Model Calibration

Well ID	Distance from Source (ft)	Concentration (µg/L) TCE	DCE	VC
MW-14	5	3200	280	<10 (5)
MW-25	150	3600	880	<20 (10)
MW-20	350	2	210	<1 (0.5)
MW-22	1360	<1.0 (0.5)	<1.0 (0.5)	<1.0 (0.5)

Generally, the more highly chlorinated the compound, the more rapidly it is reduced by reductive dechlorination (Vogel and McCarty, 1985; Vogel and McCarty, 1987). Therefore, it is possible for daughter products to increase in concentration before they decrease (Aziz et al., 2000) as shown with the site-specific example for cis-1,2-DCE.

Table E4 shows the biotransformation rate constants for the three COCs calculated by the model from the field observations using the Buschek and Alcantar method, together with the final values used in the model. During the model calibration the initial rate constants were adjusted in order to better match the field concentrations observed further downgradient from the source, particularly for VC because it is the most mobile and toxic of the three COCs. Notably, VC was not detected at any of the wells in 2011 at the detection limits shown in **Table E3** indicating fast degradation rates (note that VC has been detected historically and more recently at various wells, including in July 2015 at MW-25 with concentration of 23.6 µµµ.)

The final biotransformation rate constants used in the model for TCE and DCE are significantly more conservative than those calculated by the Buschek and Alcantar method. As a result, the predicted concentrations of COCs further downgradient of the source area are significantly higher than those observed in the field, as explained further in the text.

For the purposes of model visualization, one-half detection limit was assigned to the four wells listed in **Table E3**; these values are shown on the figures illustrating model predictions.

Table E4: Biotransformation Rate Constants, in 1/year, calculated by the model from the field data vs. the final used values and their equivalent constituent half-life, in years.

Constituent	Buschek-Alcantar method	Final Used in Model	Equivalent Half-Life
TCE	0.9008	0.077	9.0
cis-1,2-DCE	0.1294	0.069	10.0
VC	0.0538	1.386	0.5

The Intermediate aquifer porous media consist primarily of fine to medium sands with spatially varying content of fines. The prevalent geochemical conditions that drive natural biotransformation processes and therefore the estimated rate constants may change spatially as well as the COCs migrate with the groundwater. The same is true with sorption of COCs onto porous media solids. This variability is clearly evident in case of TCE at the Site, as seen from **Table E3**. Namely, it is apparent that TCE is degrading faster and/or retarding more than what was simulated between the monitoring wells MW-25 and MW-20.

E2.5 SOURCE DATA

The source of COCs dissolved in groundwater of the Intermediate aquifer underlying the Site is assumed to be in close proximity of the monitoring well MW-14 which historically had the highest dissolved concentration of TCE at the Site of 8,800 µg/L in 2003 (see **Figures E1 and E2**). The source area in the model is assumed to be a plane 200 feet wide and 25 feet deep (25 feet is the thickness of the Intermediate aquifer at MW-14).

E2.5.1 Source Decay

Free-phase or residual phase DNAPLs, such as TCE, can act as continuing sources of groundwater contamination. The rate at which constituents in the DNAPL or source zone dissolve into the groundwater ultimately determines the concentration of dissolved contaminants in the plume and the lifetime of a dissolved plume. In BIOCHLOR Version 2.2, the user has the option of modeling a source with constant or decaying concentration over time. Source decay is modeled as a first order process. This approach captures all processes that can lead to depressed aqueous-phase concentrations in the source zone, including decreased dissolution rate from the DNAPL, biotransformation, or any other degradation processes that follow first-order or pseudo first-order rates.

The value of source decay constant is calculated by plotting temporal aqueous concentrations in a source area well on a graph and determining the slope of the fitted exponential trend line as shown on **Figure E2** for monitoring well MW-14. As can be seen from the field data since year 2003, there is a significant decreasing trend in concentrations of TCE clearly indicating a decaying source.

The source decay constant (k_s) is different from the biotransformation constant, λ. The source decay constant describes how the concentration in a source area well decreases as the residual source material is depleted of the constituent of concern, whereas λ is the biotransformation rate constant for a constituent in the dissolved phase plume downgradient of the source.

To model a decaying source in BIOCHLOR, the Domenico (1987) semi-analytical solution for reactive transport with first order biological decay was modified to incorporate a decaying source (boundary) condition. The revised model assumes that the source decays exponentially via a first order expression [i.e., $C_o \times \exp(-k_s t)$]. The modification of the Domenico solution was accomplished by extending a 1-D solution to the advection-dispersion equation that incorporated a decaying boundary condition to a 3-D solution by analogy (Van Genuchten and Alves, 1982).

The source decay constant (k_s) is first determined by the user using site-specific concentration values for a monitoring well assumed to be representative of (closest to) the source zone, such as MW-14 in this case. However, the user is restricted to k_s values that are less than $1/R^*(\lambda+Vs/4\alpha)$ to prevent unstable complex solutions. A safety factor of 20% is also incorporated such that the model, by default, significantly under-predicts the rate of source decay.

Based on the field data, the source decay constant for TCE is calculated to be 0.110 with a very high regression coefficient of R^2=0.9047 (**Figure E2**). However, because of the model conservative restrictions and the 20% safety factor, the value of 0.110 cannot be used for the given set of input parameters. Therefore, a much lower value of 0.041, as allowed by the BIOCHLOR model, is used for all model simulations. This results in a significant over prediction of the simulated concentrations of TCE at MW-14, adding to the overly conservative predictions of future COCs concentrations downgradient of the source area as explained further in the text.

E2.5.2 Initial Source Concentrations

The highest ever observed concentration of the three COCs at the source well MW-14 were in year 2003 (see **Figure E1**) and were used as the initial source area concentrations in the model. Notably, this concentration of TCE is also the highest ever observed at any of the Intermediate aquifer monitoring wells.

E2.6 SUMMARY OF MODEL INPUT PARAMETERS

Summary of model input parameters is provided in **Table E5**, together with sources of information and notes explaining rationale for the selections of specific parameter values.

It should be noted that Section 12-8-108 of the Georgia Voluntary Remediation Program Act specifically addresses fate and transport parameters as follows: “Compliance with site-specific cleanup standards may be determined on the basis of any fate and transport model recognized by the United States Environmental Protection Agency or United States Geological Survey and using most probable representative values for model parameters (*emphasis added*) as adopted by the board.”

Nevertheless, in response to EPD’s January 28, 2016 model comments, the approach in this revised site-specific model was to use several very conservative values of model parameters to demonstrate that, even when compounding their conservative effects and therefore significantly over predicting the calculated concentrations of COCs (as compared to the actual concentrations observed in the field), the end result is still protective of human health and the environment, and the Site complies with cleanup standards.

Table E5: Summary of Model Input Parameters		
Parameter	**Data Value**	**Data Source**
Seepage Velocity	18.1 ft/yr	Calculated from site-specific hydraulic conductivity (0.00175 cm/s), site-specific hydraulic gradient (0.002), and effective porosity (0.2)
Hydraulic Conductivity	0.00175 cm/sec	The geometric mean of slug test values from Intermediate aquifer monitoring wells MW-14 (0.01067 cm/s), MW-25 (0.00039 cm/s), MW-20 (0.00106 cm/s) and MW-22: (0.00214 cm/s). (December 2007 Revised CSR Table 4.1 and December 2010 VRP Application Addendum Table 4.1)
Hydraulic Gradient	0.002 ft/ft	Calculated as the average change in the hydraulic head between MW-14 and MW-22 recorded between September 2003 and December 2015 (**see Table E2**)
Effective Porosity	0.20	Because of the presence of silt and clay, the effective porosity is estimated at 20%, or slightly less than typically used value of 25% for sands. (Kresic, 2007).
Dispersivities	65 ft longitudinal, 6.5 ft transverse, 1E-99 ft vertical	USEPA rule of thumb based on estimated plume length of 650 ft (see **Figure E1** and BIOCHLOR manual)
Soil Bulk Density	1.7 kg/L	Aquifer matrix (soil) bulk density is estimated to be 1.7 kg/L (default value in BIOCHLOR)
Fraction Organic Carbon (foc)	0.001	Soil fraction organic carbon is conservatively estimated to be 0.001 or 100% less than 0.002 recommended by USEPA (1996) and GA EPD (2014a,b; 2015)
Octanol-water Partition Coefficient (Koc)		
TCE	61 L/kg	USEPA, 2016
DCE	40 L/kg	
VC	22 L/kg	

Table E5: Summary of Model Input Parameters		
Parameter	**Data Value**	**Data Source**
Common Retardation Factor (R)	1.19	BIOCHLOR uses one retardation factor for all the constituents, not individual retardation factors for each constituent. The lowest R calculated for VC is conservatively used for all three COCs.
Biotransformation	Half-life	Biotransformation Rate Constant (λ); Calibrated, conservatively assumed to be lower than calculated by Buschek-Alcantar method embedded in BIOCHLOR
TCE→DCE	9 yrs	0.077
DCE→VC	10 yrs	0.069
VC→ETH	0.5 yrs	1.386
Modeled Area Width	400 ft	Double the estimated width of the source area at MW-14
Modeled Area Length	2000 ft	Distance from source to downgradient property boundary
Source Thickness in Saturated Zone	25 ft	The source area thickness, 25 feet, is the average of the thickness of the IWBZ in the four IWBZ wells (the thickness of the IWBZ at MW-14 is 24 feet) (Figure 3.0-2 Hydrogeologic Profile A-A')
Source Width	200 ft	The width, 200 feet, approximates that portion of the IWBZ in the MW-14 area where the highest concentrations of VOCs (primarily TCE) have been historically recorded. The source plane is shown on **Figure E1**, the potentiometric map of the IWBZ.
Initial Source Concentrations		Field data from September 2003 for the source area well MW-14
TCE	8,800 µg/L	
DCE	510 µg/L	
VC	20 µg/L	

E3.0 MODEL RESULTS

E3.1 MODEL CALIBRATION

Figure E3 shows the BIOCHLOR input screen for the model calibration run and **Figures E4 through E6** show the model-calculated concentrations of COCs at the monitoring wells screened in the Intermediate aquifer compared to the field-observed concentrations in June 2011. It should be noted that in general, because of the source decay constant restrictions (including the added safety factor of 20%), in most cases BIOCHLOR over predicts by default the dissolved concentrations at monitoring wells representing the source zones. This is evident when comparing the field-data from June 2011 and the model-calculated concentrations of TCE at MW-14 (see **Figure E4**). The predicted TCE concentration at MW-25 is fairly close to the observed. However, because of the compounding effects of several overly conservatively assumed values of fate and transport parameters including retardation and biotransformation rates, the model-predicted concentration of TCE at MW-20, well further downgradient of MW-25, is several orders of magnitude higher than the observed. This means that the model predictions for the future fate and transport of COCs at the site are conservative since the source decay rate for TCE in the model is lower than the observed, and the rate of COCs migration in the model is higher than the observed.

As mentioned earlier, the prevalent geochemical conditions that drive natural biotransformation processes and therefore the estimated rate constants may change spatially as the COCs migrate with the groundwater. This is especially evident in case of TCE, as seen in **Figure E4**. Namely, it appears that TCE is degrading significantly faster in a zone between the monitoring wells MW-25 and MW-20 than what is simulated by the model. Currently, BIOCHLOR does not provide for simulation of spatially variable biotransformation rate constants and a decaying source at the same time. Nevertheless, the calibrated model shows a reasonable degree of accuracy in simulating the overall field-observed trends and distribution of all three COCs thus justifying its use for future conservative predictions. As emphasized by Leonard Konikow, a premier contaminant fate and transport modeler of the U.S. Geological Survey, "*All concentrations observed in the field cannot be reproduced by the model: "A model is by definition a simplification of a very complex reality, so an end point will never be reached where a model is a precise representation of reality—and that, of course, would be a futile goal to strive for." and "We expect flow models to reproduce most observed heads within a few meters*

or less. But for transport models, we should not expect that the calculated concentrations will accurately match all variations observed in the field, or even in a single observation well. Rather, one should aim to reproduce major trends and locally averaged values." (Konikow, 2011)

E3.2 MODEL VERIFICATION

Figure E7 shows the BIOCHLOR input screen for the model verification run and **Figures E8 through E10** show the model-calculated concentrations of COCs at the monitoring wells screened in the Intermediate aquifer compared to the field-observed concentrations in December 2015. Similarly to the calibration run, the model-predicted concentrations of COCs are conservative overall in that they over-predict the field-observed concentrations for the most part. At the same time, however, they do reasonably accurately reproduce major spatial and temporal trends for all COCs such that the use of this conservative model for making future predictions is appropriate.

E3.3 MODEL PREDICTION

The future fate and transport of COCs is shown on **Figures E11 through E18.** These figures illustrate that the predicted concentrations of plume constituents will not exceed their respective MCLs at the property line, the point of exposure, and the plumes will start to recede approximately 100 years from current time even when assuming overly conservative model input parameters.

E4.0 SENSITIVITY ANALYSIS

Sensitivity analysis of the following model input parameters was performed by increasing and decreasing their baseline values for the calibrated model: hydraulic conductivity, longitudinal dispersivity, retardation factor, and biotransformation/degradation rates expressed as degradation half-life of individual constituents. The results of the analysis are shown in **Table E6** for monitoring well MW-20 which is the farthest downgradient well with detectable concentrations of COCs.

Table E6: Model Sensitivity Analysis; Concentrations are Calculated for December 2015 at Well MW-20

Hydraulic Conductivity (Baseline = 1.75 E-3 cm/s)				
Constituent	Concentrations (µg/L or ppb)			
	1.5x Baseline	**Baseline**	0.5xBaseline*	**Observed**
TCE	1708	779	53.7	ND (2)
Cis-1,2-DCE	786	394	30.5	414
VC	24.2	12.2	0.96	5

* Model requires decrease in source decay constant to <0.024

Longitudinal Dispersivity (Baseline = 65 feet)				
Constituent	Concentrations (µg/L or ppb)			
	1.5x Baseline*	**Baseline**	0.5xBaseline	**Observed**
TCE	995	779	364	ND(2)
Cis-1,2-DCE	466	394	203	414
VC	14.4	12.2	6.4	5

* Requires decrease in source decay constant to <0.028

Retardation Factor (Baseline = 1.19)				
Constituent	Concentrations (µg/L or ppb)			
	1.5x Baseline*	**Baseline**	0.5xBaseline ~ 1	**Observed**
TCE	255	779	1061	ND(2)
Cis-1,2-DCE	97	394	600	414
VC	2.9	12.2	18.8	5

Requires decrease in source decay constant to <0.028

Biotransformation Half-life in Years (Baseline: TCE = 9.0; DCE=10.0; VC=0.5)				
Constituent	Concentrations (µg/L or ppb)			
	1.5x Baseline	**Baseline**	0.5xBaseline	**Observed**
TCE	947	779	438	ND(2)
Cis-1,2-DCE	337	394	417	414
VC	10.1	12.2	13.5	5

As discussed in Section 2.0 Model Input Parameters, the model has several built-in restrictions including one common retardation factor for all COCs and a lower-than-observed source decay rate. Combined, these restrictions contribute to overall conservative model predictions (over-predictions) of constituent concentrations when compared to the field-observed data. This is also one of the reasons why certain parameters have varying degrees of sensitivity for individual COCs. For example, the common final value of the retardation factor, R=1.19, is used by default for all three COCs, but it is significantly lower than the more reasonable 1.52 initially calculated by the model for TCE. **Table E6** shows that using R 1.5x higher than the baseline value results in a significantly lower calculated TCE concentration at MW-20. Similarly, when using a shorter half-life for TCE the calculated concentration is significantly lower although the model still over predicts its concentration at MW-20 by several orders of magnitude in both cases. At the same time, the degradation half-life is a less sensitive parameter for both cis-1,2-DCE and VC.

Table E6 demonstrates that the baseline model input parameters provide reasonably accurate and better overall, albeit conservative, match for all three COCs compared to the comparative analyses.

E5.0 CONCLUSION

The results of the overly conservative fate and transport modeling for the three COCs (TCE, cis-1,2-DCE, and VC) at the Thermo King site in Louisville, Georgia show that the predicted concentrations of plume constituents will not exceed their respective MCLs at the property line, the point of exposure. Modeling for each constituent was projected forward in time until the maximum distance of migration was reached and the plume retreated (Figures E11 through E18). The TCE and cis-1,2-DCE plumes are predicted to begin to recede after 2115; the VC plume is predicted to begin to recede after 2100.

E6.0 REFERENCES

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FIGURES

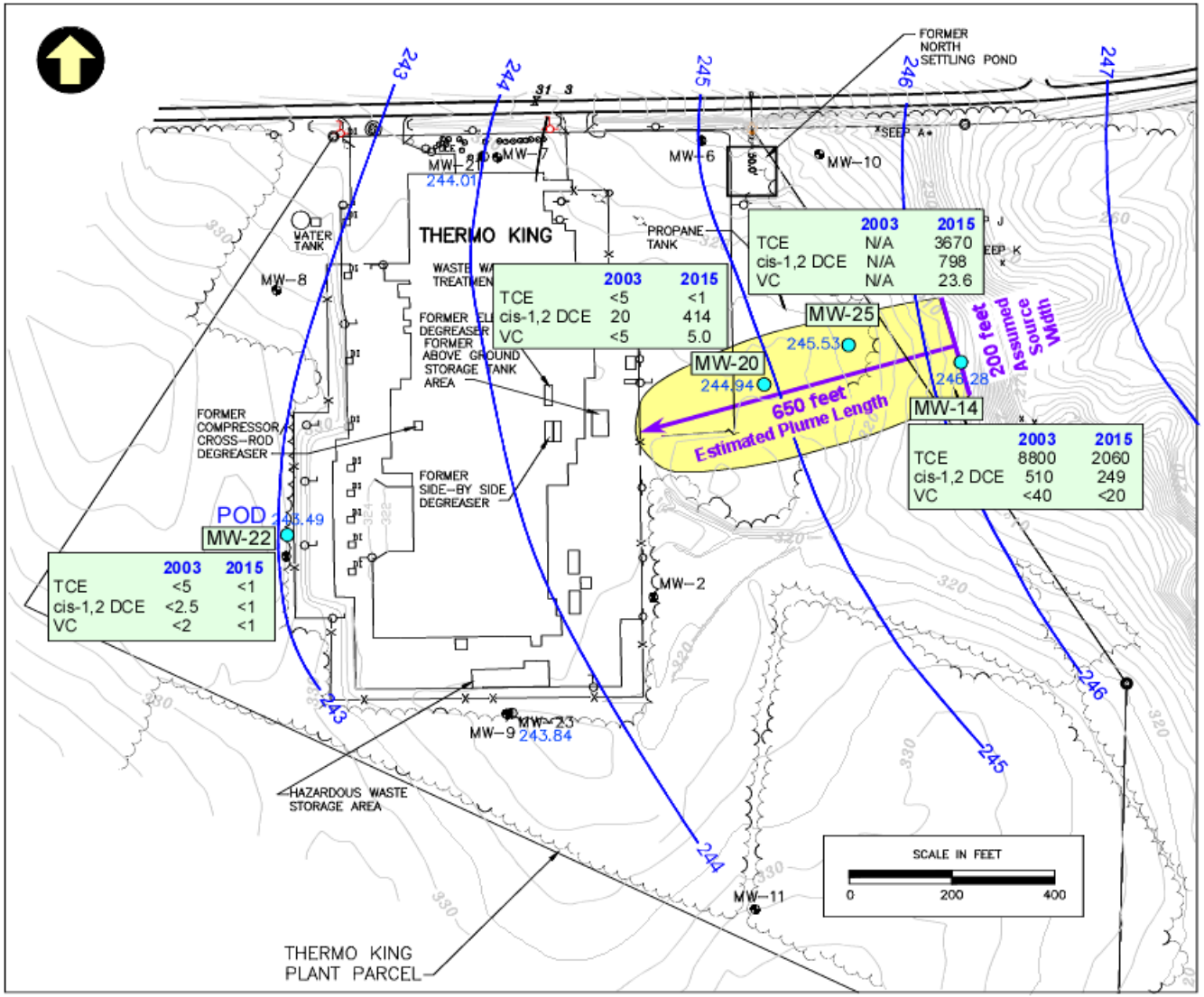


Figure E1 Site layout with elements used in BIOCHLOR model

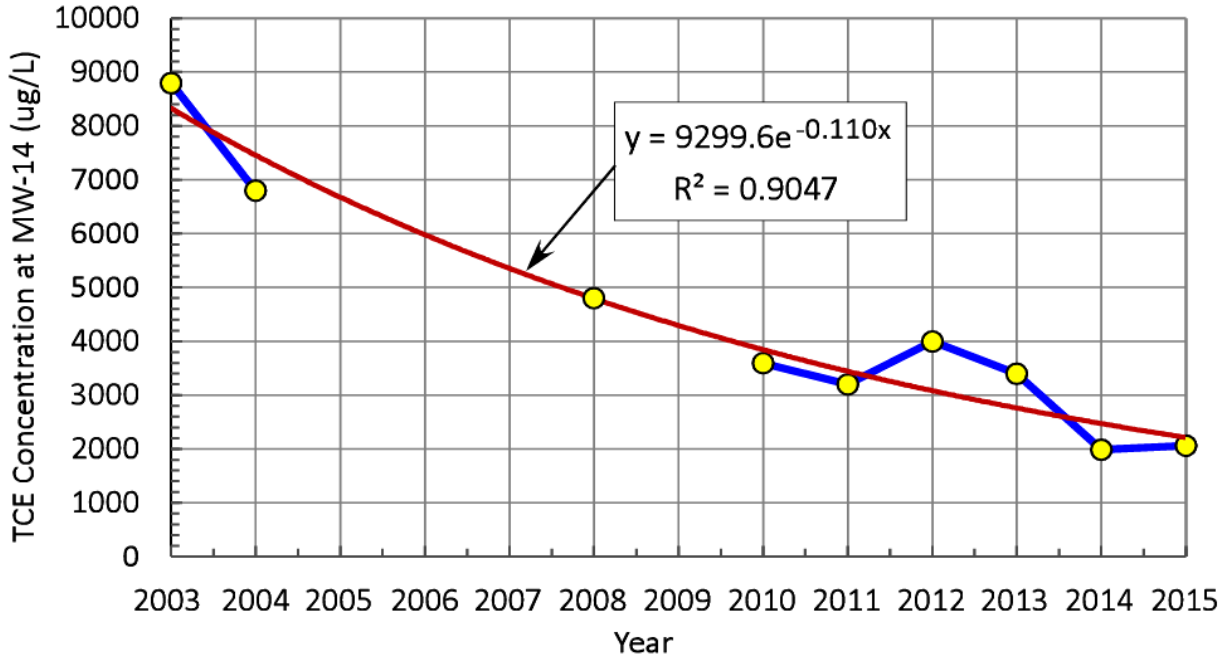


Figure E2 TCE source decay graph, MW-14

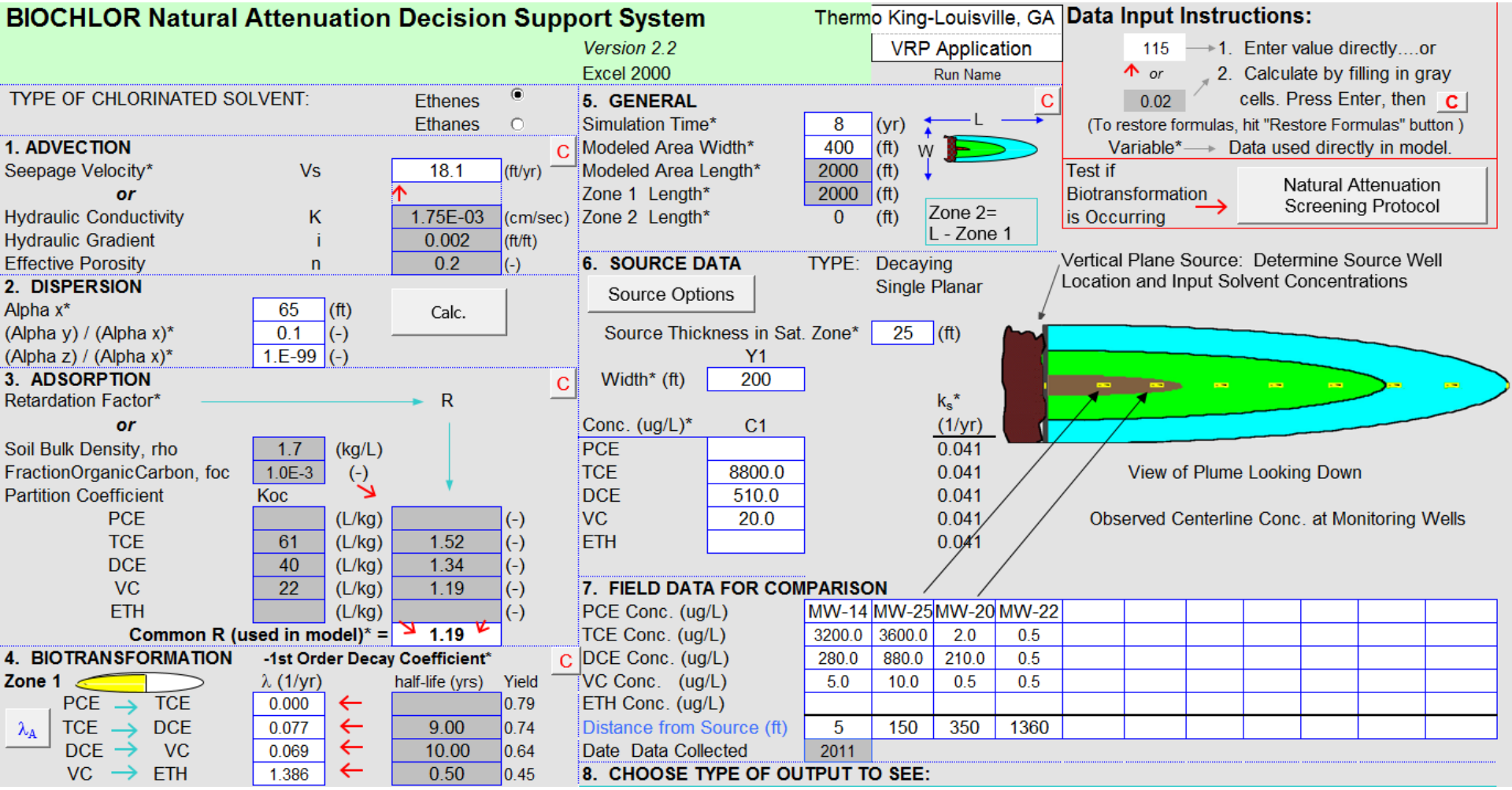


Figure E3 BIOCHLOR Input Screen, 8-Year Calibration Run (Prediction for 2011)

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

TCE	0	150	300	450	600	750	900	1050	1200	1350	1500
No Degradation	6364.602	4224.717	868.317	50.149	0.771	0.003	0.000	0.000	0.000	0.000	0.000
Biotransformation	**6364.60**	**3158.244**	**578.162**	**31.800**	**0.477**	**0.002**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site	3200.000	3600.000	2.000	0.500							

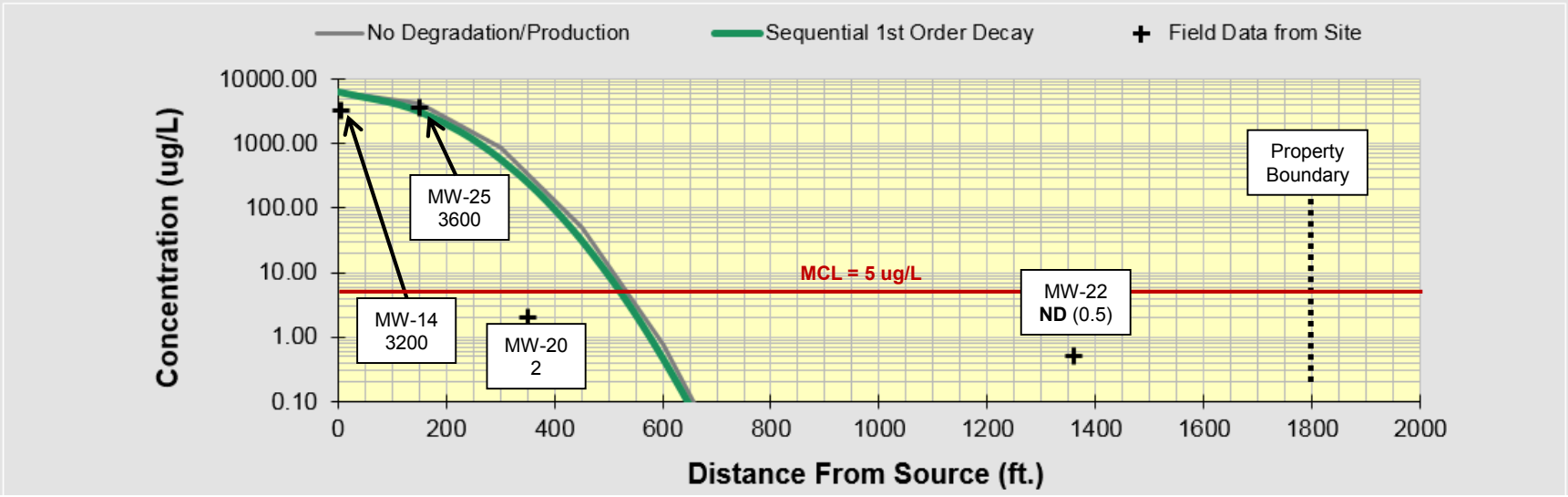


Figure E4 TCE 8-Year Calibration Run (Prediction for 2011). TCE observed concentrations, in ug/L, at individual monitoring wells are shown in boxes on the graph

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

DCE	Distance from Source (ft)										
	0	150	300	450	600	750	900	1050	1200	1350	1500
No Degradation	368.858	244.842	50.323	2.906	0.045	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	368.86	860.932	210.620	12.830	0.202	0.001	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	5	150	350	1360							
Field Data from Site	280.000	880.000	210.000	0.500							

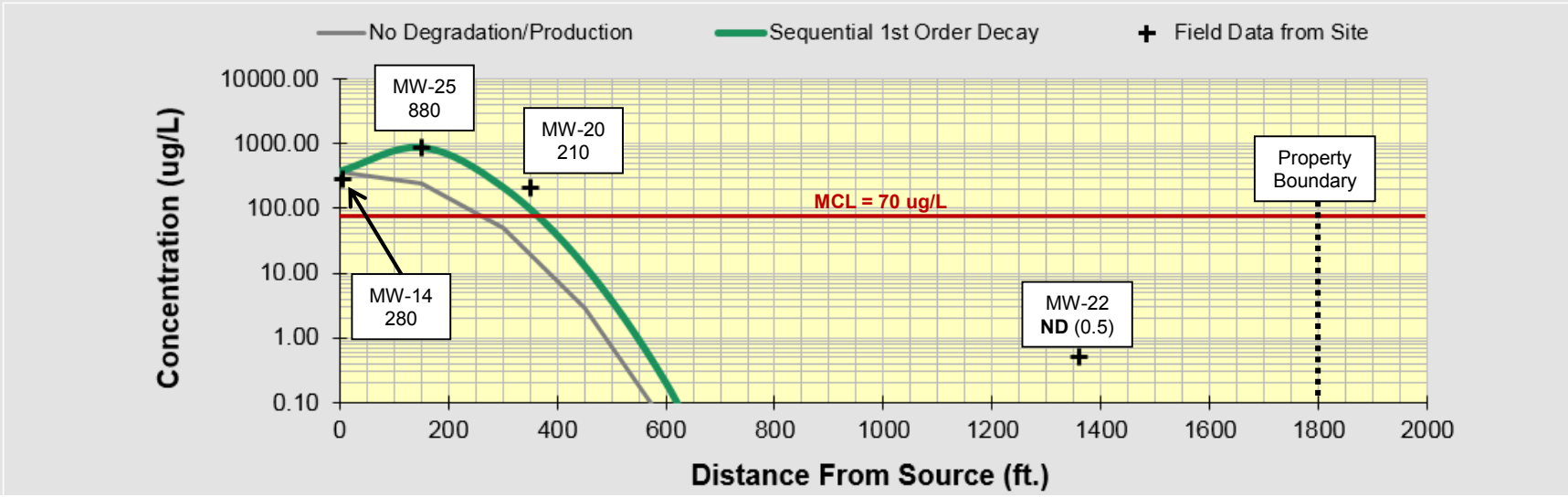


Figure E5 cis-1,2-DCE 8-Year Calibration Run (Prediction for 2011). cis-1,2-DCE observed concentrations, in ug/L, at individual monitoring wells are shown in boxes on the graph

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

VC	Distance from Source (ft)										
	0	150	300	450	600	750	900	1050	1200	1350	1500
No Degradation	14.465	9.602	1.973	0.114	0.002	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	**14.47**	**24.771**	**6.302**	**0.389**	**0.006**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
	Monitoring Well Locations (ft)										
	5	150	350	1360							
Field Data from Site	5.000	10.000	0.500	0.500							

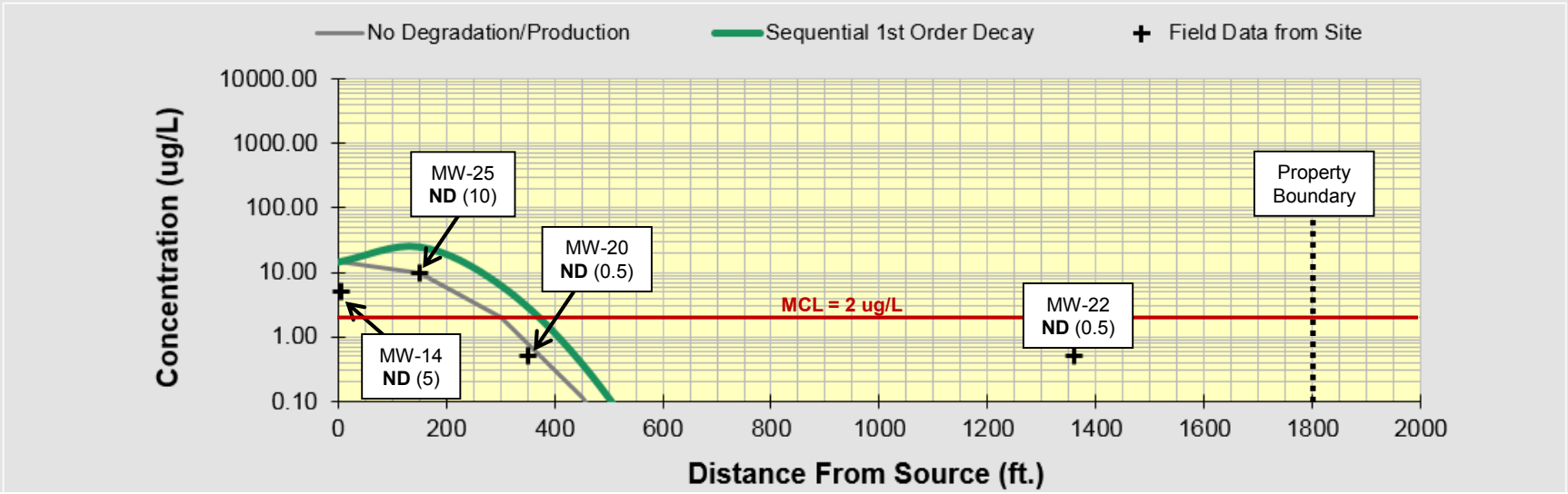


Figure E6 Vinyl Chloride 8-Year Calibration Run (Prediction for 2011). Vinyl Chloride observed concentrations, in ug/L, at individual monitoring wells are shown in boxes on the graph

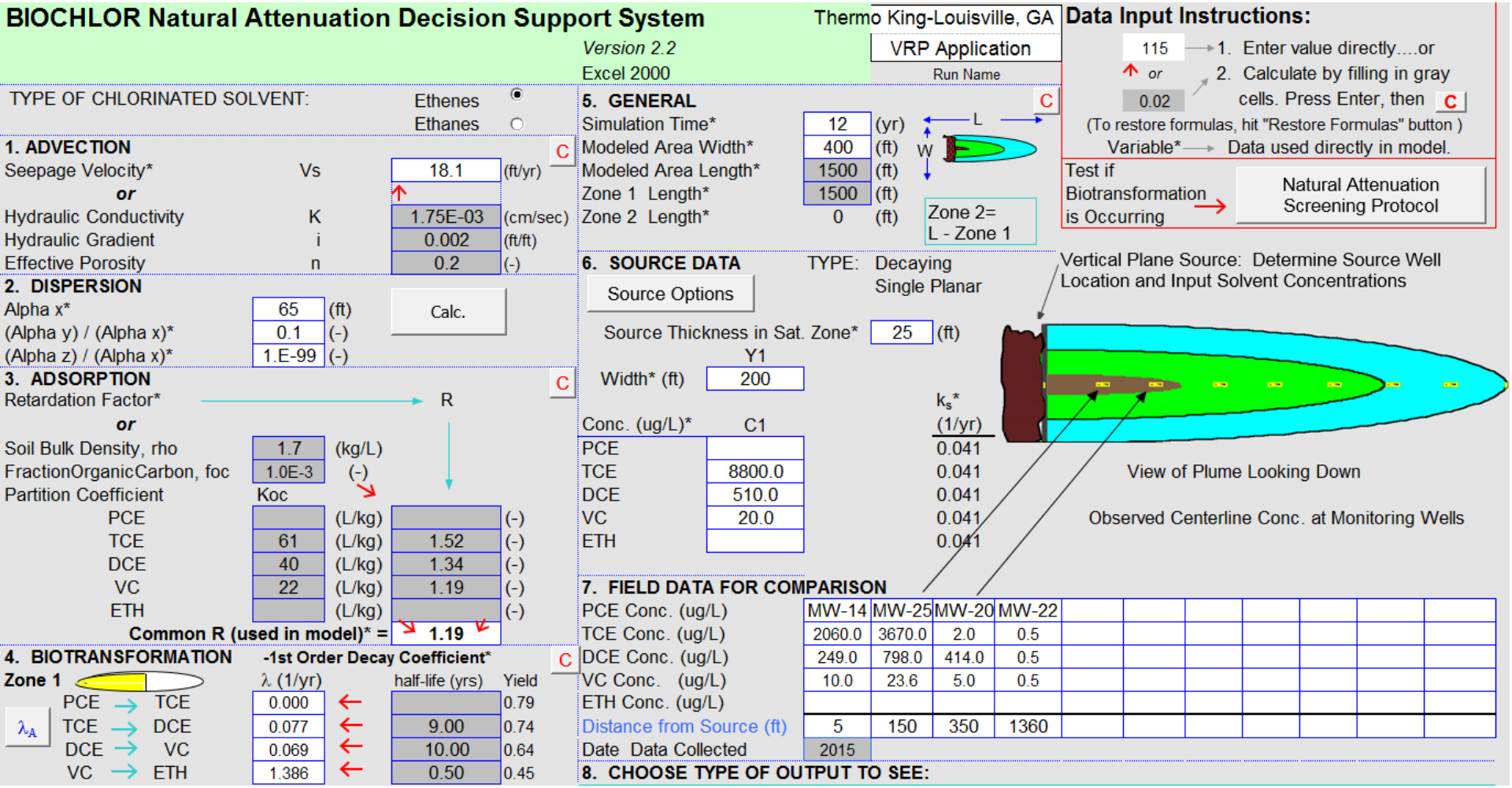


Figure E7 BIOCHLOR Input Screen, 12-Year Verification Run (Prediction for 2015)

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

TCE	Distance from Source (ft)										
	0	150	300	450	600	750	900	1050	1200	1350	1500
No Degradation	5380.341	4940.988	2125.554	405.603	32.889	1.100	0.015	0.000	0.000	0.000	0.000
Biotransformation	**5380.34**	**3397.298**	**1215.664**	**212.204**	**16.432**	**0.536**	**0.007**	**0.000**	**0.000**	**0.000**	**0.000**
	Monitoring Well Locations (ft)										
	5	150	350	1360							
Field Data from Site	2060.000	3670.000	2.000	0.500							

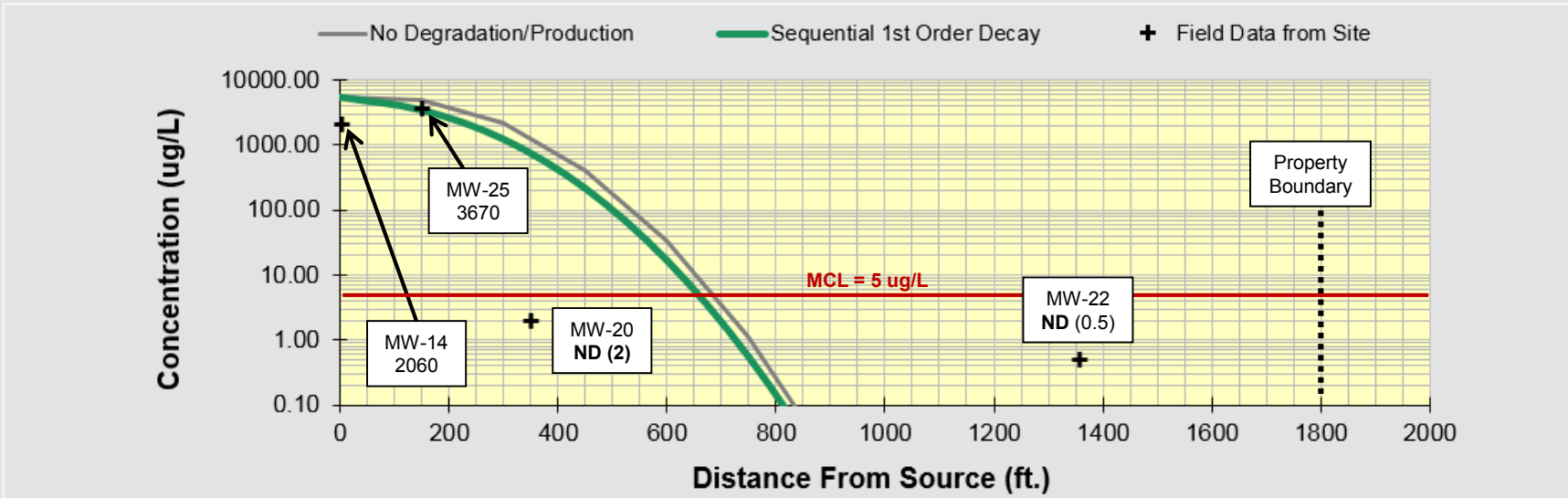


Figure E8 TCE 12-Year Verification Run (Prediction for 2015). TCE observed concentrations in ug/L, at individual monitoring wells are shown in boxes on the graph

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

DCE	0	150	300	450	600	750	900	1050	1200	1350	1500
No Degradation	313.692	287.206	123.384	23.529	1.907	0.064	0.001	0.000	0.000	0.000	0.000
Biotransformation	**313.69**	**1124.478**	**582.064**	**117.235**	**9.706**	**0.328**	**0.004**	**0.000**	**0.000**	**0.000**	**0.000**

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site	249.000	798.000	414.000	0.500							

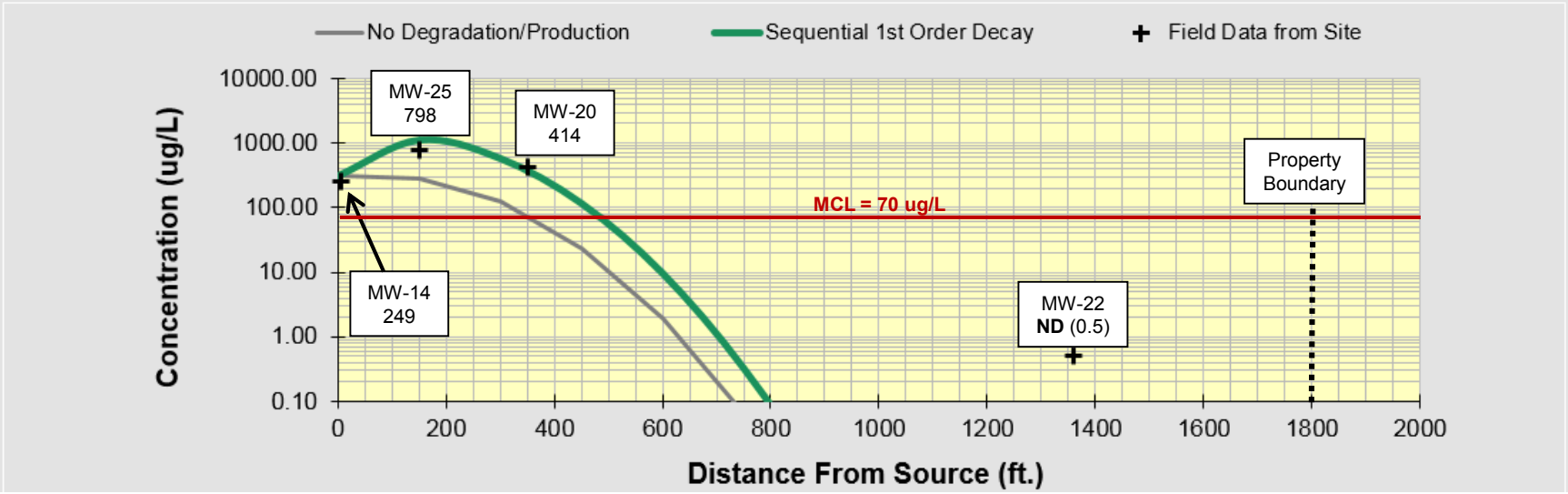


Figure E9 cis-1,2-DCE 12-Year Verification Run (Prediction for 2015). cis-1,2-DCE observed concentrations, in ug/L, at individual monitoring wells are shown in boxes on the graph

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

VC	Distance from Source (ft)										
	0	150	300	450	600	750	900	1050	1200	1350	1500
No Degradation	12.302	11.263	4.839	0.923	0.075	0.003	0.000	0.000	0.000	0.000	0.000
Biotransformation	**12.30**	**33.320**	**17.969**	**3.667**	**0.305**	**0.010**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

	Monitoring Well Locations (ft)										
	5	150	350	1360							
Field Data from Site	10.000	23.600	5.000	0.500							

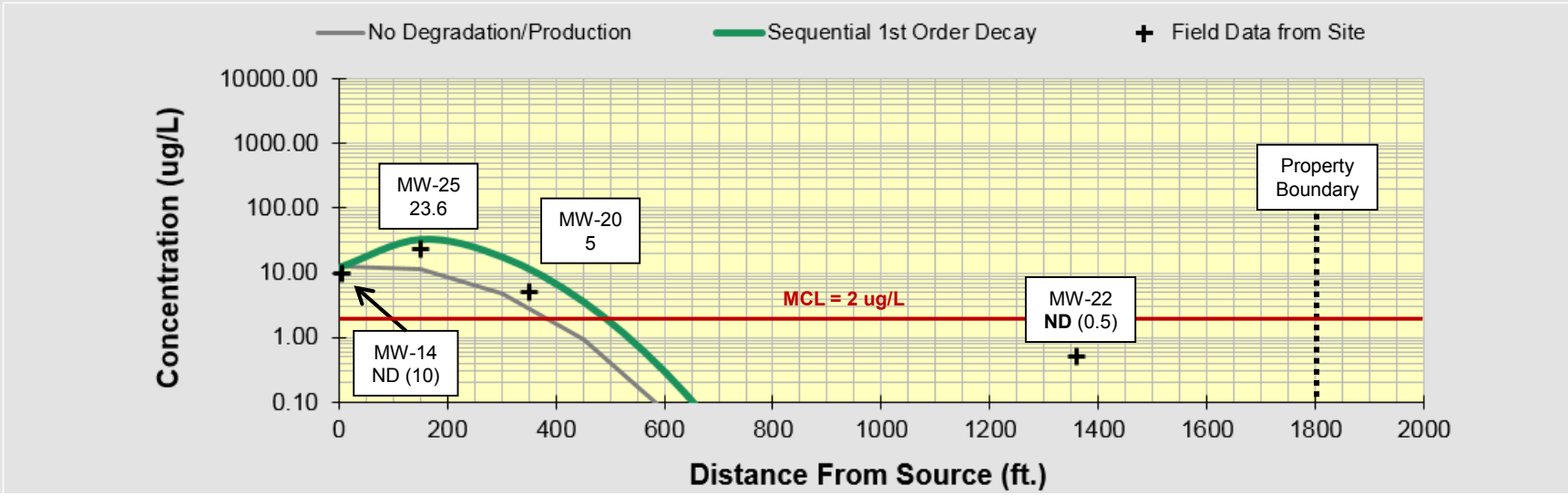


Figure E10 Vinyl Chloride 12-Year Verification Run (Prediction for 2015). Vinyl Chloride observed concentrations, in ug/L, at individual monitoring wells are shown in boxes on the graph

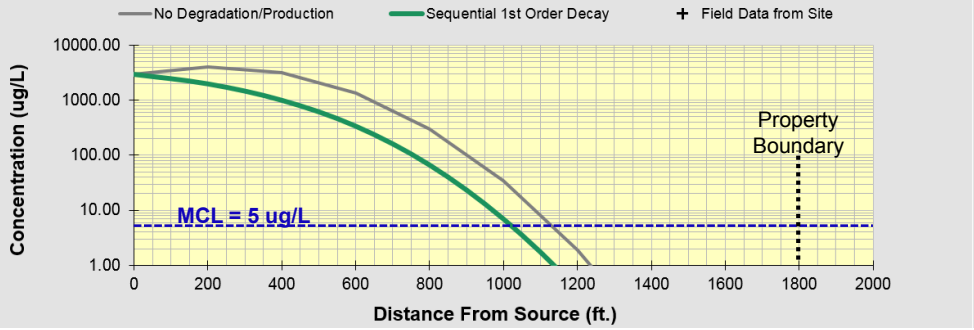
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

TCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	2948.368	4027.492	3136.896	1350.103	302.855	34.105	1.886	0.051	0.001	0.000	0.000
Biotransformation	2948.37	1977.967	998.321	338.925	66.810	6.988	0.369	0.010	0.000	0.000	0.000

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



See PCE | See TCE | See DCE | See VC | See ETH

TCE, Year 2030

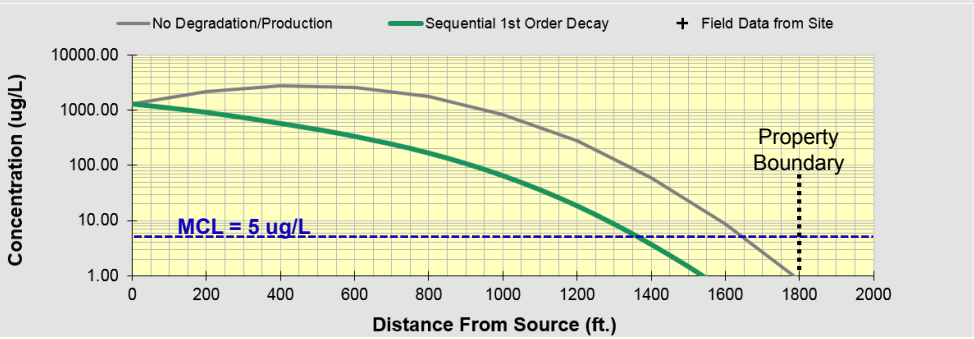
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

TCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	1311.605	2187.137	2732.045	2586.316	1769.685	844.003	274.165	59.781	8.667	0.830	0.052
Biotransformation	1311.61	922.750	582.065	339.626	169.044	65.760	18.728	3.742	0.515	0.034	0.002

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



See PCE | See TCE | See DCE | See VC | See ETH

TCE, Year 2050

Figure E11 Predicted concentration of TCE, in ug/L, for years 2030 and 2050

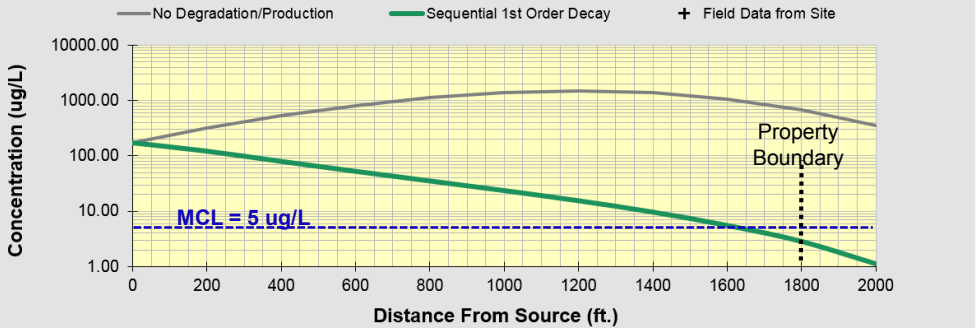
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

TCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	173.124	322.329	529.025	812.642	1138.923	1412.733	1514.606	1379.705	1055.065	671.549	353.622
Biotransformation	173.12	122.491	80.088	52.970	35.510	23.803	15.614	9.742	5.604	2.883	1.136

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



TCE, Year 2100

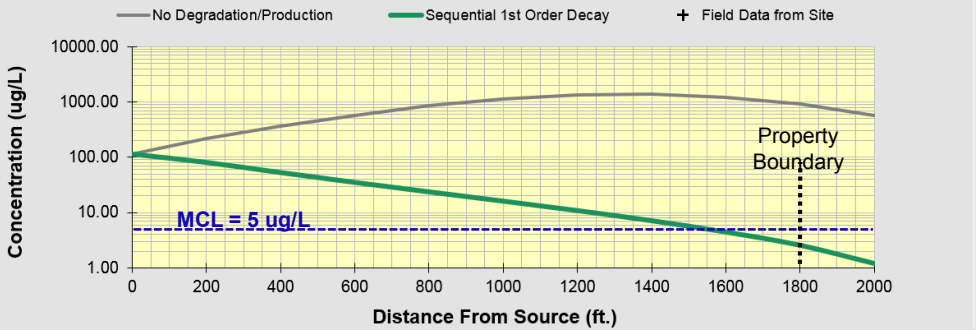
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

TCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	115.470	216.404	361.412	574.155	848.949	1135.390	1341.944	1377.692	1213.366	908.616	574.814
Biotransformation	115.47	81.701	53.429	35.375	23.809	16.144	10.872	7.126	4.431	2.547	1.190

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											

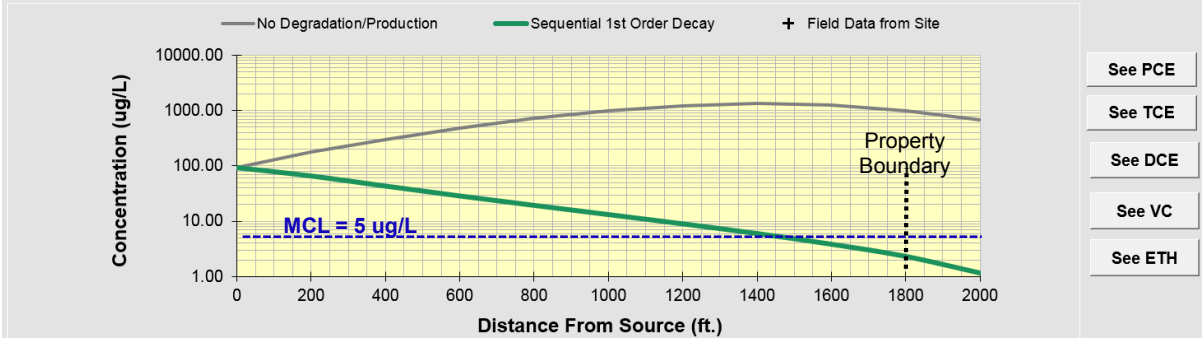


TCE, Year 2110

Figure E12 Predicted concentration of TCE, in ug/L, for years 2100 and 2110

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

TCE	Distance from Source (ft)										
	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	94.302	177.193	297.995	479.927	725.513	1001.406	1233.449	1332.507	1246.745	1001.133	685.406
Biotransformation	94.30	66.724	43.637	28.900	19.472	13.247	8.995	5.994	3.833	2.307	1.150
	Monitoring Well Locations (ft)										
	5	150	350	1360							
Field Data from Site											

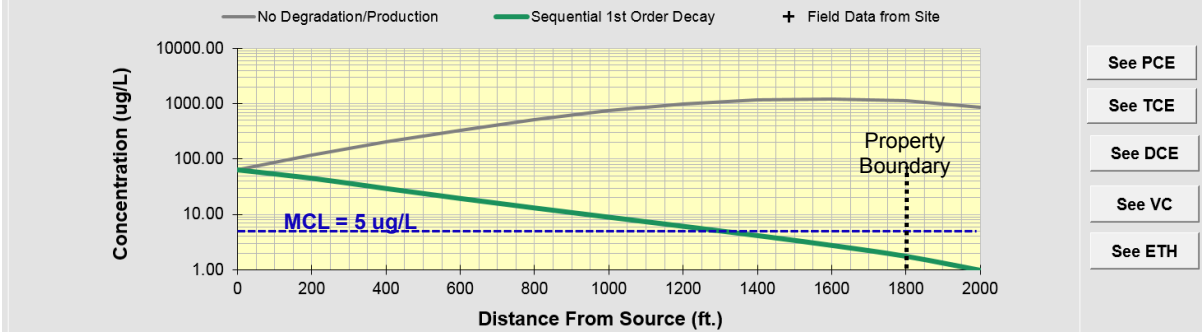


TCE, Year 2115

TCE plume is predicted to start receding after year 2115

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

TCE	Distance from Source (ft)										
	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	62.898	118.676	201.847	332.479	521.565	759.414	1003.810	1183.968	1230.138	1115.295	876.276
Biotransformation	62.90	44.504	29.107	19.282	13.007	8.884	6.095	4.152	2.763	1.762	0.986
	Monitoring Well Locations (ft)										
	5	150	350	1360							
Field Data from Site											



TCE, Year 2125

Figure E13 Predicted concentration of TCE, in ug/L, for years 2115 and 2125

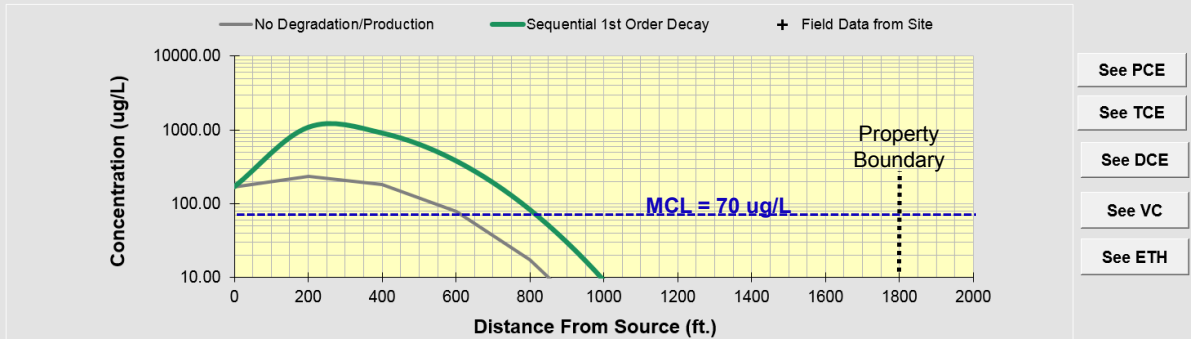
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

DCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	170.871	233.411	181.797	78.245	17.552	1.977	0.109	0.003	0.000	0.000	0.000
Biotransformation	170.87	1091.924	913.907	384.397	83.979	9.275	0.506	0.013	0.000	0.000	0.000

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



cis-1,2 DCE, Year 2030

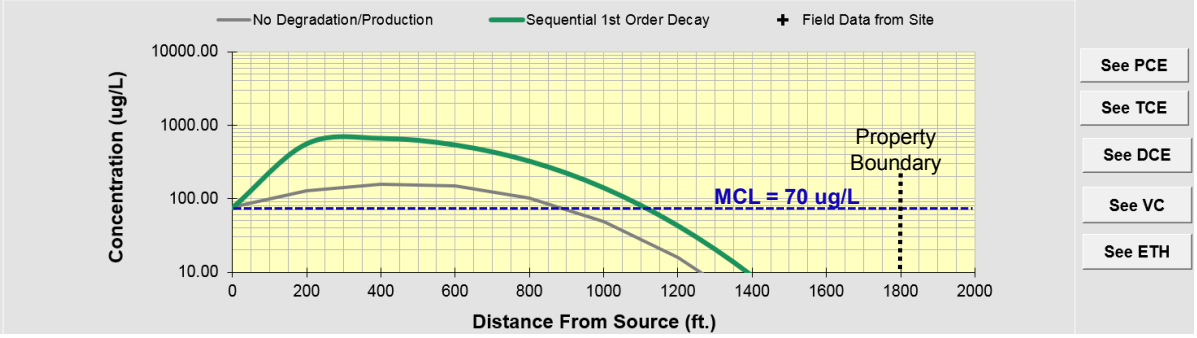
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

DCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	76.013	126.755	158.334	149.889	102.561	48.914	15.889	3.465	0.502	0.048	0.003
Biotransformation	76.01	565.346	668.669	543.765	327.005	142.057	43.240	9.008	1.245	0.081	0.005

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



cis-1,2 DCE, Year 2050

Figure E14 Predicted concentration of cis-1,2 DCE, in ug/L, for years 2030 and 2050

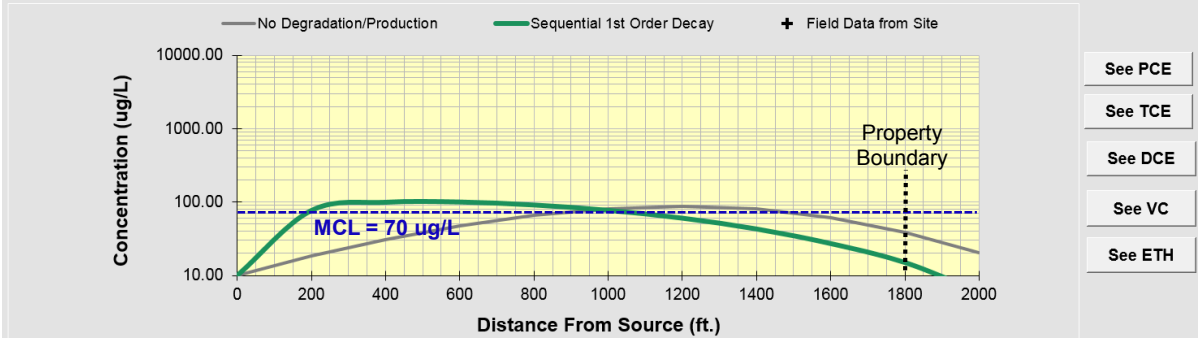
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

DCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	10.033	18.680	30.659	47.096	66.006	81.874	87.778	79.960	61.146	38.919	20.494
Biotransformation	10.03	76.947	99.339	100.201	91.203	77.137	60.385	42.985	27.210	15.043	6.002

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



cis-1,2 DCE, Year 2100

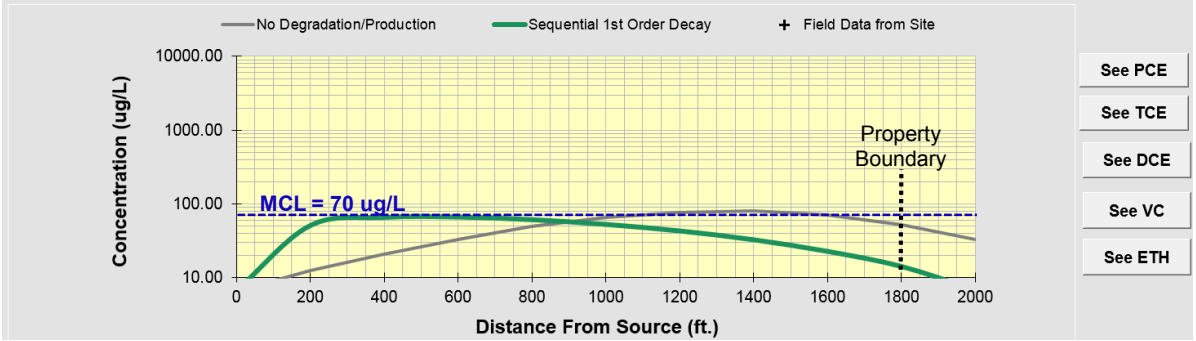
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

DCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	6.692	12.542	20.945	33.275	49.200	65.801	77.772	79.844	70.320	52.658	33.313
Biotransformation	6.69	51.335	66.340	67.145	61.696	53.315	43.465	33.045	22.998	14.404	6.917

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



cis-1,2 DCE, Year 2110

Figure E15 Predicted concentration of cis-1,2 DCE, in ug/L, for years 2100 and 2110

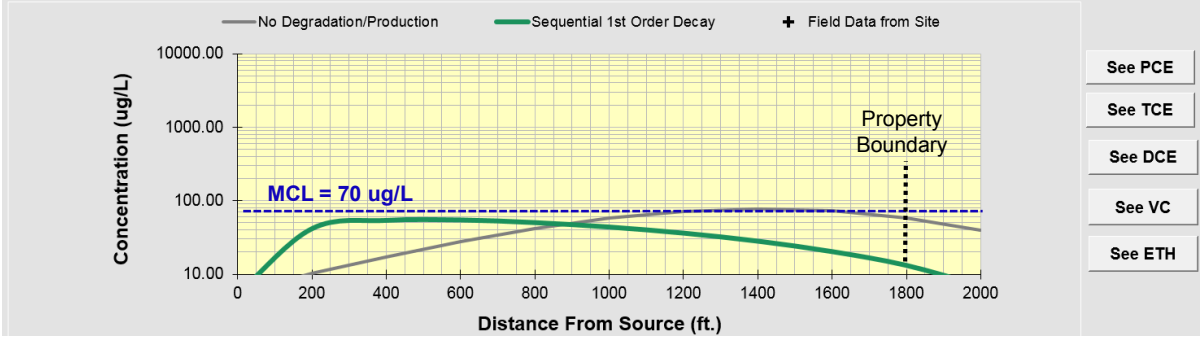
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

DCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	5.465	10.269	17.270	27.814	42.047	58.036	71.484	77.225	72.255	58.020	39.722
Biotransformation	5.47	41.928	54.197	54.908	50.596	44.022	36.389	28.330	20.434	13.289	6.971

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



cis-1,2 DCE, Year 2115

cis-1,2 DCE plume is predicted to start receding after year 2115

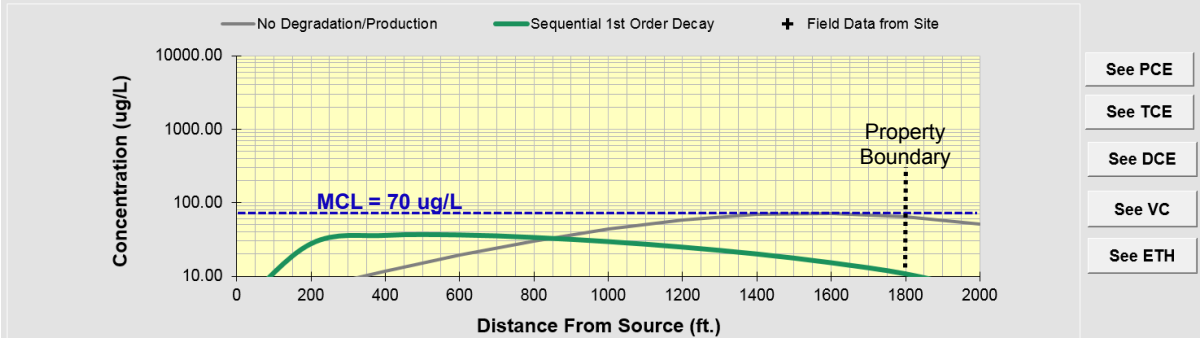
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

DCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	3.645	6.878	11.698	19.269	30.227	44.011	58.175	68.616	71.292	64.636	50.784
Biotransformation	3.65	27.967	36.162	36.677	33.914	29.768	25.071	20.195	15.378	10.876	6.433

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											

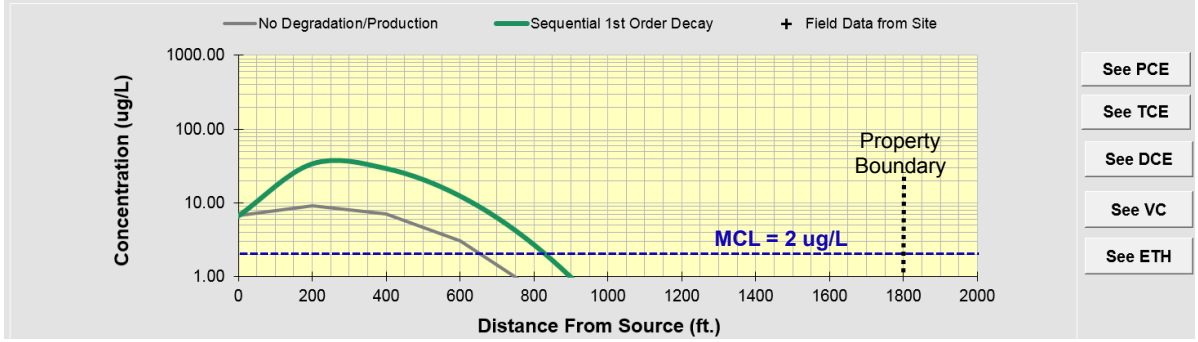


cis-1,2 DCE, Year 2125

Figure E16 Predicted concentration of cis-1,2 DCE, in ug/L, for years 2115 and 2125

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

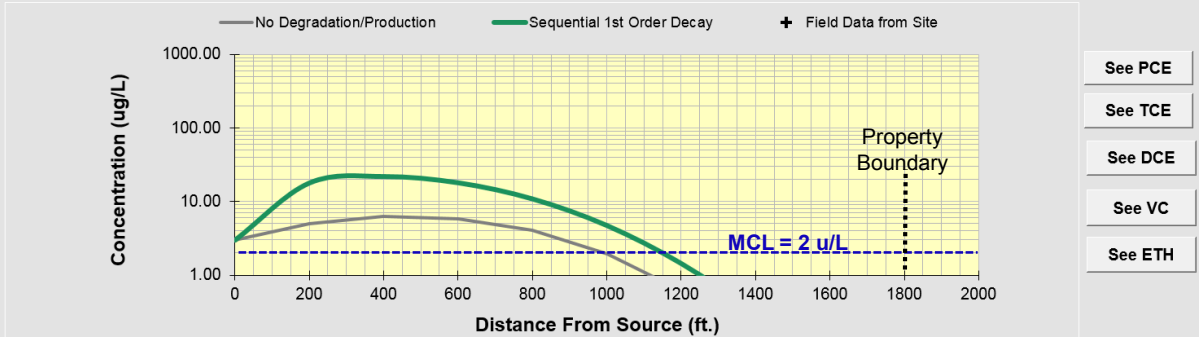
VC	Distance from Source (ft) 0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	6.701	9.153	7.129	3.068	0.688	0.078	0.004	0.000	0.000	0.000	0.000
Biotransformation	6.70	34.177	29.554	12.550	2.752	0.305	0.017	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft) 5	150	350	1360							
Field Data from Site											



VC, Year 2030

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

VC	Distance from Source (ft) 0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	2.981	4.971	6.209	5.878	4.022	1.918	0.623	0.136	0.020	0.002	0.000
Biotransformation	2.98	17.843	21.842	17.959	10.852	4.726	1.440	0.300	0.042	0.003	0.000
	Monitoring Well Locations (ft) 5	150	350	1360							
Field Data from Site											



VC, Year 2050

Figure E17 Predicted concentration of Vinyl Chloride, in ug/L, for years 2030 and 2050

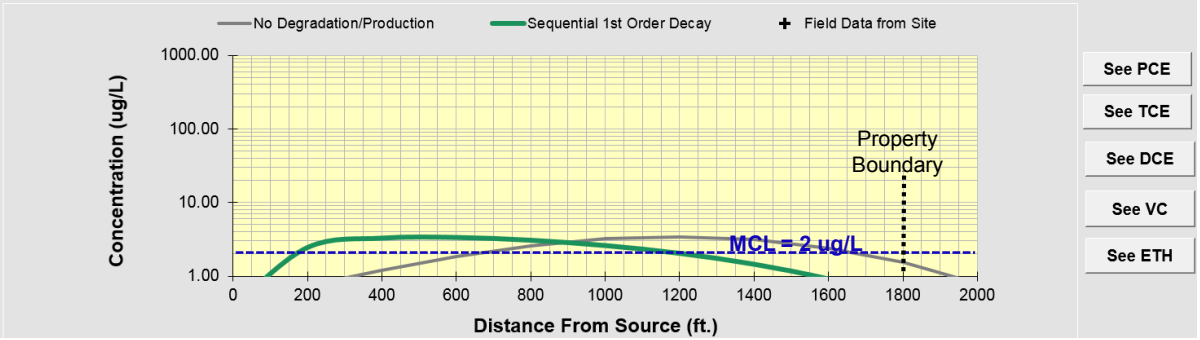
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

VC	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	0.393	0.733	1.202	1.847	2.588	3.211	3.442	3.136	2.398	1.526	0.804
Biotransformation	0.39	2.433	3.254	3.324	3.044	2.584	2.027	1.445	0.915	0.506	0.202

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



VC, Year 2100

VC plume is predicted to start receding after year 2100

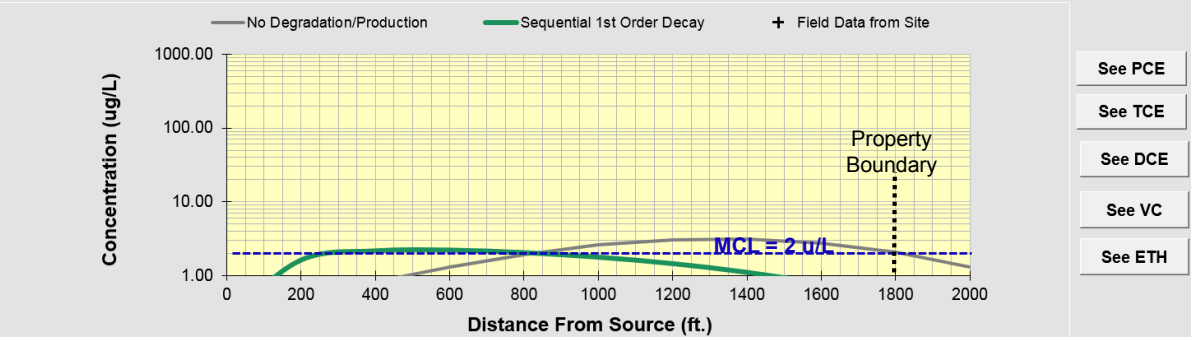
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (ug/L) at Z=0

Distance from Source (ft)

VC	0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	0.262	0.492	0.821	1.305	1.929	2.580	3.050	3.131	2.758	2.065	1.306
Biotransformation	0.26	1.623	2.173	2.227	2.059	1.786	1.460	1.111	0.774	0.485	0.233

Monitoring Well Locations (ft)

	5	150	350	1360							
Field Data from Site											



VC, Year 2110

Figure E18 Predicted concentration of Vinyl Chloride, in ug/L, for years 2100 and 2110

APPENDIX F

ENVIRONMENTAL COVENANT

After Recording Return to:

Georgia Environmental Protection Division
Response and Remediation Program
2 Martin Luther King, Jr. Drive, SE
Suite 1054 East
Atlanta, Georgia 30334

Environmental Covenant

This instrument is an Environmental Covenant executed pursuant to the Georgia Uniform Environmental Covenants Act, OCGA § 44-16-1, *et seq.* This Environmental Covenant subjects the Property identified below to the activity and/or use limitations specified in this document. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded in accordance with OCGA § 44-16-8(a).

Fee Owner of Property/Grantor:	Thermo King Corporation 314 West 90th Street Minneapolis, Minnesota 55420
Grantee/Holder:	Thermo King Corporation 314 West 90th Street Minneapolis, Minnesota 55420
Grantee/Entity with express power to enforce:	State of Georgia Department of Natural Resources Environmental Protection Division 2 Martin Luther King Jr. Drive, SE Suite 1054 East Tower Atlanta, GA 30334-9000
Parties with interest in the Property:	
Property:	Georgia Power Company Environmental Affairs Bin 10221 241 Ralph McGill Boulevard, NE Atlanta, Georgia 30308-3374

The property subject to this Environmental Covenant is the Thermo King Corporation (hereinafter "Property"), located on 1430 Highway 24 East in Louisville, Jefferson County, Georgia. These tracts of land was conveyed on January 18, 1965 from the Draper Corporation to Thermo King Corporation recorded in Deed Book 62, Page 376 (54.47-acre tract) and on July 24, 2002 from Mrs. Ethel B. (Mrs. R.H. Jr) Clark to Thermo King Corporation recorded in Deed Book 325, Pages 81-82 and on Plat Book 2, Page 255 (56.00-acre tract), Jefferson County Records. The area is located on Parcel 0090 024 of the 82th GMD District of Jefferson County, Georgia. Louisville, GA is not in the Land Lot system. Property is a total of 110.47 acres zoned industrial, bounded on the North by Georgia Highway 24 East, on the East by properties owned by Lizzie Quarterman, Tommie Quarterman, David Quarterman, and Mary Clark, bounded on the South by other property owned by Mary Clark and

bounded on the West by Industrial Development Corporation of Louisville, Inc. A complete legal description of the area is attached as Exhibit A and maps of the area are attached as Exhibit B.

Tax Parcel Number(s):

0090 024 of Jefferson County, Georgia

Name and Location of Administrative Records:

The corrective action at the Property that is the subject of this Environmental Covenant is described in the following document[s]:

- Voluntary Remediation Plan and Application Fee and Addendum Pursuant to the Georgia Voluntary Remediation Program Act, Thermo King Corporation – Louisville, Georgia, HSI Site # 10702, dated January 29, 2010, March 18, 2010, and December 22, 2010.

These documents are available at the following location:

Georgia Environmental Protection Division
Response and Remediation Program
2 MLK Jr. Drive, SE, Suite 1054 East Tower
Atlanta, GA 30334
M-F 8:00 AM to 4:30 PM excluding state holidays

Description of Contamination and Corrective Action:

This Property has been listed on the state's hazardous site inventory and has been designated as needing corrective action due to the presence of hazardous wastes, hazardous constituents, or hazardous substances regulated under state law. Contact the property owner or the Georgia Environmental Protection Division for further information concerning this Property. This notice is provided in compliance with the Georgia Hazardous Site Response Act.

This Declaration of Covenant is made pursuant to the Georgia Uniform Environmental Covenants Act, O.C.G.A. § 44-16-1 *et seq.* by Thermo King Corporation, its successors and assigns, Thermo King Corporation , and the State of Georgia, Department of Natural Resources, Environmental Protection Division (hereinafter "EPD"), its successors and assigns. This Environmental Covenant is required because a release of Volatile Organic Compounds (VOCs): Trichloroethene; cis-1,2-Dichloroethene; 1,1-Dichloroethene; 1,4-Dioxane; 1,1,1-Trichloroethane; Tetrachloroethene, and Toluene occurred on the Property. Trichloroethene; cis-1,2-Dichloroethene; 1,1-Dichloroethene; 1,4-Dioxane; 1,1,1-Trichloroethane; Tetrachloroethene, and Toluene are "regulated substances" as defined under the Georgia Hazardous Site Response Act, O.C.G.A. § 12-8-90 *et seq.*, and the rules promulgated thereunder (hereinafter "HSRA" and "Rules", respectively). The Corrective Action consists of the installation and maintenance of engineering controls. To control/preclude the surface expression of those seeps where VOC concentrations exceed In-stream Surface Water Quality Criteria (ISWQC), a rip-rap cover has been placed to create an exposure barrier to the seep water. Also, the building floor slab has been designated as an exposure barrier to the area of the underlying impacted soils. Future operations that require penetration of that designated floor slab area will be conducted using a health

and safety plan prepared specifically for the proposed barrier affecting activity. Institutional controls (deed restrictions) will be used to restrict use of site groundwater and to maintain the building floor slab and rip-rap cover exposure barriers to protect human health and the environment. Institutional controls and sub-slab vapor mitigation/remediation measures may also be used to control exposure to vapor intrusion, if warranted, based on sub-slab soil gas and/or indoor air data.

Grantor, Thermo King Corporation (hereinafter "Thermo King Corporation"), hereby binds Grantor, its successors and assigns to the activity and use restriction(s) for the Property identified herein and grants such other rights under this Environmental Covenant in favor of the Thermo King Corporation and EPD. EPD shall have full right of enforcement of the rights conveyed under this Environmental Covenant pursuant to HSRA, O.C.G.A. § 12-8-90 *et seq.*, and the rules promulgated thereunder. Failure to timely enforce compliance with this Environmental Covenant or the use or activity limitations contained herein by any person shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall restrict EPD from excising any authority under applicable law.

Thermo King Corporation makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, pursuant to O.C.G.A. § 44-16-5(a); is perpetual, unless modified or terminated pursuant to the terms of this Covenant pursuant to O.C.G.A. § 44-16-9; and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereinafter "Owner"). Should a transfer or sale of the Property occur before such time as this Environmental Covenant has been amended or revoked then said Environmental Covenant shall be binding on the transferee(s) or purchaser(s).

The Environmental Covenant shall inure to the benefit of Thermo King Corporation and EPD and their respective successors and assigns and shall be enforceable by the Director or his agents or assigns, Thermo King Corporation or its successors and assigns, Thermo King Corporation or its successors and assigns, and other party(ies) as provided for in O.C.G.A. § 44-16-11 in a court of competent jurisdiction.

Activity and/or Use Limitation(s)

1. Registry. Pursuant to O.C.G.A. § 44-16-12, this Environmental Covenant and any amendment or termination thereof, may be contained in EPD's registry for environmental covenants.

2. Notice. The Owner of the Property must give thirty (30) day advance written notice to EPD of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Corrective Action. The Owner of the Property must also give thirty (30) day advance written notice to EPD of the Owner's intent to change the use of the Property, apply for building permit(s), or propose any site work that would affect the Property.

3. Notice of Limitation in Future Conveyances. Each instrument hereafter conveying an interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of the Environmental Covenant.

4. Monitoring. As set forth in the Voluntary Remediation Plan Groundwater samples will be collected from designated monitoring wells and analyzed for site-specific VOCs for a monitoring period of at least 5 years. Water samples will be collected from designated seeps and from designated surface water locations in Manson Branch and analyzed for site-specific VOCs for a monitoring period of at least 5 years.

5. Periodic Reporting. Following the effective date of this Environmental Covenant, the Owner shall submit to EPD status reports as specified in the schedule presented in the Voluntary Remediation Plan, dated December 22, 2010 and per EPD's March 10, 2011 approval letter accepting the site into the Voluntary Remediation Program.

6. Activity and Use Limitation(s). The Property shall be used only for non-residential uses, as defined in Section 391-3-19-.02 of the Rules and defined in and allowed under the Jefferson County's zoning regulations as of the date of this Environmental Covenant. Any residential use on the Property shall be prohibited. Any activity on the Property that may result in the release or exposure to the regulated substances that were contained as part of the Corrective Action, or create a new exposure pathway, is prohibited. With the exception of work necessary for the maintenance, repair, or replacement of engineering controls, activities that are prohibited, if appropriate – for example, in the capped areas include, but are not limited to the following: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork. If the slab is removed or its current configuration changed, a risk assessment would be required for those areas left uncovered to evaluate if there are potential site users' exposure that exceed the current Georgia EPD regulatory guidance/thresholds. A further evaluation of contaminants leaching to groundwater would also be required. Should the use or potential redevelopment/expansion in enclosed structures(s) on the property occur, the potential for vapor intrusion from VOCs in sub-slab soil gas and/or indoor air shall be reassessed. Should it be concluded that the potential risk to onsite users under the land use restrictions as specified above is above the current Georgia EPD regulatory guidance/thresholds, a vapor mitigation/remediation system or barrier shall be installed and maintained.

7. Groundwater Limitation. The use or extraction of groundwater beneath the Property for drinking water or for any other non-remedial purposes shall be prohibited.

8. Permanent Markers. Permanent markers on each side of the Property shall be installed and maintained that delineate the restricted area as specified in Section 391-3-19-.07(10) of the Rules. Disturbance or removal of such markers is prohibited.

9. Right of Access. In addition to any rights already possessed by EPD and/or the Thermo King Corporation, the Owner shall allow authorized representatives of EPD and/or Thermo King Corporation the right to enter the Property at reasonable times for the purpose of evaluating the Corrective Action; to take samples, to inspect the Corrective Action conducted at the Property, to determine compliance with this Environmental Covenant, and to inspect records that are related to the Corrective Action.

10. Recording of Environmental Covenant and Proof of Notification. Within thirty (30) days after the date of the Director's signature, the Owner shall file this Environmental Covenant with the Recorders of Deeds for each County in which the Property is located, and send a file stamped copy of this Environmental Covenant to EPD within thirty (30) days of recording. Within that time period, the Owner shall also send a file-stamped copy to each of the following: (1) Thermo King Corporation, (2) each person holding a recorded interest in the Property subject to the covenant, (3) each person in possession of the real property subject to the covenant, (4) each municipality, county, consolidated government, or other unit of local government in which real property subject to the covenant is located, and (5) each owner in fee simple whose property abuts the property subject to the Environmental Covenant.

11. Termination or Modification. The Environmental Covenant shall remain in full force and effect in accordance with O.C.G.A. § 44-5-60, unless and until the Director determines that the Property is in compliance with the Type 1, 2, 3, or 4 Risk Reduction Standards, as defined in Georgia Rules of Hazardous Site Response (Rules) Section 391-3-19-.07 and removes the Property from the Hazardous Site Inventory, whereupon the Environmental Covenant may be amended or revoked in accordance with Section 391-3-19-08(7) of the Rules and O.C.G.A. § 44-16-1 *et seq.*

12. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

13. No Property Interest Created in EPD. This Environmental Covenant does not in any way create any interest by EPD in the Property that is subject to the Environmental Covenant. Furthermore, the act of approving this Environmental Covenant does not in any way create any interest by EPD in the Property in accordance with O.C.G.A. § 44-16-3(b).

Representations and Warranties.

Grantor hereby represents and warrants to the other signatories hereto:

a) That the Grantor has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;
b) That the Grantor is the sole owner of the Property and holds fee simple title which is free, clear and unencumbered;
c) That the Grantor has identified all other parties that hold any interest (e.g., encumbrance) in the Property and notified such parties of the Grantor's intention to enter into this Environmental Covenant;
d) That this Environmental Covenant will not materially violate, contravene, or constitute a material default under any other agreement, document or instrument to which Grantor is a party, by which Grantor may be bound or affected;
e) That the Grantor has served each of the people or entities referenced in Activity 10 above with an identical copy of this Environmental Covenant in accordance with O.C.G.A. § 44-16-4(d).
f) That this Environmental Covenant will not materially violate or contravene any zoning law or other law regulating use of the Property; and
g) That this Environmental Covenant does not authorize a use of the Property that is otherwise prohibited by a recorded instrument that has priority over the Environmental Covenant.

Notices.

Any document or communication required to be sent pursuant to the terms of this Environmental Covenant shall be sent to the following persons:

Georgia Environmental Protection Division
Branch Chief
Land Protection Branch
2 Martin Luther King Jr. Drive SE
Suite 1054 East Tower
Atlanta, GA 30334-9000.

Ingersoll Rand Company
800-E Beaty Street
Davidson, NC 28036
Attn: Michael Goldstein

Thermo King Corporation
314 West 90th Street
Minneapolis, MN 55420
Attn: David Long

Grantor has caused this Environmental Covenant to be executed pursuant to The Georgia Uniform Environmental Covenants Act, on the _____day of _____, 2015

Signed, sealed, and delivered in the presence of:

Unofficial Witness *(Signature)*

Mike Zaleski
Unofficial Witness Name *(Print)*

314 W. 90th Street
Bloomington MN 55420
Unofficial Witness Address *(Print)*

Notary Public *(Signature)*

My Commission Expires: 1-31-16

For the Grantor/Grantee/Holder:

ThermoKing Corporation
Name of Grantor *(Print)*

Grantor's Authorized Representative: *(Signature)*

Raymond Pittard
Authorized Representative Name *(Print)*

President
Title of Authorized Representative *(Print)*

Dated: 10-15-15

(NOTARY SEAL)

Lisa Boehm
Notary Public, State of Minnesota
My Commission Expires
January 31, 2016

Signed, sealed, and delivered in the presence of:

Unofficial Witness *(Signature)*

Unofficial Witness Name *(Print)*

Unofficial Witness Address *(Print)*

Notary Public *(Signature)*

My Commission Expires: _____

For the State of Georgia
Environmental Protection Division:

(Signature) (Seal)

Judson H. Turner
Director

Dated:_____

(NOTARY SEAL)

CORPORATE AUTHORIZATION

SECRETARY'S CERTIFICATE

The undersigned as the duly qualified and acting Assistant Secretary of Thermo King Corporation (the "Company"), in connection with this Environmental Covenant executed pursuant to the Georgia Uniform Environmental Covenants Act, OCGA § 44-16-1, *et seq.* for the real property located on 1430 Highway 24 East in Louisville, Jefferson County, Georgia, does hereby certify (in his capacity as an officer of the Company and not in his individual capacity) as follows:

1. The undersigned is the duly elected, qualified and incumbent Assistant Secretary of the Company and is authorized to execute and deliver this Certificate in the name of and on behalf of the Company.

2. The following person is, as of the date hereof, an executive of the Company, holds the position specified next to his name; and has been duly authorized (in his capacity as an executive of the Company and not in his individual capacity) to bind the Company to the Environmental Covenant for the property located on 1430 Highway 24 East in Louisville, Jefferson County, Georgia, including the authority to grant interest in real property:

NAME	**Title**
Raymond D. Pittard	President, Thermo King Corporation

IN WITNESS WHEREOF, the undersigned has caused this Certificate to be executed by its duly authorized Assistant Secretary this the 8th day of October, 2015.

William O'Driscoll
Thermo King Corporation, Assistant Secretary

Exhibit A
Legal Description

ABBOT, MURPHY AND HARVEY, P.C.
ATTORNEYS AND COUNSELLORS AT LAW
190 EAST SEVENTH STREET
POST OFFICE BOX 31
LOUISVILLE, GEORGIA 30434
TELEPHONE (478) 625-7281
FACSIMILE (478) 625-8200
EMAIL JMURPHY_AMHLAW@BELLSOUTH.NET

JOHN R. MURPHY III

W. WRIGHT ABBOT (1892-1969)
JAMES C. ABBOT (1926-1997)
FRED K. HARVEY, JR. (1944-2006)

December 6, 2010
By Email and Regular Mail

Mr. David A . Kolb
ESH and Facility Manager
Thermo King Corporation
1430 Highway 24 East
Louisville , GA 30434

CERTIFICATE OF TITLE
Property Of
THERMO KING CORPORATION

All that tract or parcel of land, together with all improvements located thereon, lying and being in the 82nd GMD, Jefferson County, Georgia, containing **110.47 acres**, more or less, fronting to the North on Georgia Highway 24, slightly East of the City of Louisville, and being bounded now or formerly as follows: On the East by property of Lizzie Quarterman, property of Tommie Quarterman, property of David Quarterman, and property of Mary Clark; on the South by property of Mary Clark; on the West by property of Industrial Development Corporation of Louisville; and on the North by Georgia Highway 24. Said property is composed of that certain **54.47-acre** tract which is shown as PARCEL 2 on plat of survey by Frank J. Ford, Surveyor, dated June 14, 1961, and recorded in Deed Book 62, Page 376, Jefferson County Records; and that certain **56.00-acre** tract which appears on plat of survey by Surveying Solutions, Inc., Jeffrey L. Nipper, Georgia Registered Land Surveyor No. 2736, dated June 27, 2002, revised July 2, 2002 and July 3, 2002, and recorded in Plat Book 2, Page 255, Jefferson County Records. Reference is made to each of said recorded plats for a fuller and more particular description.

This is to certify that I have conducted an examination of the public records of Jefferson County, Georgia, as correctly indexed, regarding the property described above, and BASED UPON SUCH EXAMINATION, it is my opinion that the marketable, fee simple title to the aforesaid property is vested in THERMO KING CORPORATION.

Such fee simple title, however, is subject to the following liens, restrictions, easements, objections and other exceptions, to-wit:

1. Statutory liens of general contractors, sub-contractors, materialmen, mechanics or laborers, of which no notice appears of record. If any improvements have been placed on this property within the past 90 days, proof is required that all bills of labor and materials have been paid in full.

2. Any encroachments, easements, measurements, party walls or other facts which a current, correct survey of the premises would show.

3. Rights, if any, of parties who may be in possession under claims not appearing of record, or other matters not of record, including any rights or claims in appliances or personal property attached or unattached to the real estate or buildings, forgery, insanity, or minority of a maker..

4. All zoning laws, ordinances or regulations, and all governmental regulations of the use and occupancy of the above-described property, including the regulation of the land or any building or structure thereon, or the effect of any violation of any such zoning laws, ordinances or regulations.

5. This property does not lie within a planned unit development or a condominium.

6. This property is identified on the Jefferson County Tax Digest as Parcel 024 on Map 0090, and is returned as a 110.46-acre parcel, billed to Thermo King Corporation. (Please note the 0.01-acre discrepancy). The 2010 property taxes and the 2010 inventory and equipment taxes are now due and payable, but have not yet been paid. The due date is December 20.

7. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated November 8, 1967, and recorded in Deed Book 74, Page 436, Jefferson County Records.

8. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated April 9, 1968, and recorded in Deed Book 76, Page 538, Jefferson County Records.

9. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated April 1, 1971, and recorded in Deed Book 90, Page 269, Jefferson County Records.

10. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated August 16, 1972, and recorded in Deed Book 95, Page 399, Jefferson County Records.

11. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated November 14, 1972, and recorded in Deed Book 95, Page 409, Jefferson County Records.

12. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated October 17, 1973, and recorded in Deed Book 101, Page 211, Jefferson County Records.

13. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated January 23, 1974, and recorded in Deed Book 103, Page 222, Jefferson County Records.

14. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated February 9, 1989, and recorded in Deed Book 171, Page 283, Jefferson County Records.

15. Power Line (Service) Easement from Thermo King Corp to Georgia Power Company, dated January 31, 1990, and recorded in Deed Book 177, Page 137, Jefferson County Records.

16. The subject property is not listed on the Federal National Priorities List pursuant to CERCLA (42 U.S.C. §9601). The public records do not show that the property is currently affected by any order or directive by the Federal Environmental Protection Agency or the Environmental Protection Division of the Georgia Department of Natural Resources.

17. There have been no liens filed on the public records of Jefferson County, Georgia, affecting the subject property, pursuant to OCGA §12-8-96 or OCGA §12-13-12(b).

John R. Murphy III

JOHN R. MURPHY III

cc: Ms. Rhonda Quinn

COMMONWEALTH OF MASSACHUSETTS Warranty Deed
COUNTY OF WORCHESTER

THIS INDENTURE made this 18th day of January, 1965, by and between DRAPER CORPORATION a corporation of the State of Maine, with principal offices at Hopedale, Massachusetts, of the First Part, and THERMO KING CORPORATION, a corporation of the State of Delaware, the principal offices at Bloomington, Minnesota, of the Second Part:

WITNESSETH: That the said Party of the First Part, for and in consideration of the sum of Ten ($10.00) Dollars and other valuable considerations, in hand paid, at and before the sealing and delivering of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed and confirmed, and by these presence does grant, bargain, sell, alien, convey and confirm unto the said Party of the Second Part, its successors and assigns, all the following described property, to-wit:

All that tract or parcel of land situate, lying and being in the 82nd District G.M. of Jefferson County, Georgia, containing Fifty Four and Forty Seven One-hundredths (54.47) acres more or less, being Parcel No. 2 appearing on plat of survey made by Frank J. Ford, Surveyor, dated June 14, 1961, and recorded in the office of the Clerk of Superior Court of Jefferson County, Georgia, in Deed Book 62, page 376, and being bounded on the North by Georgia State Highway 24 leading from Louisville to Waynesboro, Georgia, on the East by property of R. H. Clark, Jr., on the South by property of R. H. Clark, Jr., and on the West by Parcel No. 1 appearing on said plat.

Said premises are conveyed subject to two electric line and pole easements executed by R. H. Clark, Jr., the first being to Georgia Power Company dated July 5, 1949 and recorded in said Office in Deed Book 3-L, Page 513 and the second being to Jefferson County Electric Membership Corporation dated September 20, 1948 and recorded in said office in Deed Book 3-N, page 389.

TO HAVE AND TO HOLD the said above granted and described property, with all and singular the rights, members and appurtenances thereunto appertaining, to the only proper use, benefit and behoof of the said Party of the Second Part, its successors and assigns, in FEE SIMPLE, and the said Party of the First Part, the said bargained property above described unto the said Party of the Second Part, its successors and assigns, against the said Party of the First Part, its successors and assigns, and against all and every other person or persons shall and will and does hereby, warrant and forever defend, by virtue of these presents.

IN WITNESS WHEREOF, the said Party of the First Part has hereunto set its hand and affixed its seal, and delivered these presents the day and year first above written.

Signed, sealed and delivered in the presence of:

Thad R. Jackson

Charles H Mongeon (N.P. SEAL)
Notary Public

DRAPER CORPORATION (CORP. SEAL)

by James H. Richardson
Financial Vice President

Attest: Robert D Douley
Secretary

CERTIFICATION OF VOTE

This certifies that at a regular meeting of the Directors of Draper Corporation, duly held at the office of the corporation in Hopedale, Massachusetts, on November 27, 1964, a quorum being present and acting throughout, the following vote was unanimously passed:

VOTED: That the Financial Vice President, James H. Richardson, be and hereby is authorized and empowered to make, in such form as he shall determine, and to sign, seal, acknowledged and deliver on behalf of the corporation a warranty deed conveying to Thermo King, a Delaware corporation, certain land with buildings thereon located inthe 82nd District G.M. of Jefferson County, Georgia, containing 54.47 acres more or less and being the same land conveyed to this corporation by Louisville Chamber of Commerce by deed dated June 14, 1961, and recorded in the office of the Clerk of Superior Court of Jefferson County, Georgia in Deed Book 62, page 387.

I further certify that the deed to which this certificate is attached was prepared and executed in accordance with the authority granted in the above vote and that the land described in said deed is the same land described in said vote.

(CORPORATION SEAL)
Jan. 18, 1965

Robert D Dauley
Secretary of Draper Corporation

Filed and recorded in office February 4th, 1965
E. J. Smith, Clerk of Courts, bm

GEORGIA, JEFFERSON COUNTY

THIS INDENTURE made this 20th day of January, 1965, by and between Jefferson County Electric Membership Corporation, a corporation of Jefferson County, Georgia, Party of the First Part, and Thermo-King Corporation, a corporation of the State of Minnesota, Party of the Second Part,

WITNESSETH

WHEREAS, Party of the Second Part recently purchased the property hereinafter described;

WHEREAS, by instrument dated September 20, 1948, and recorded in the Office of the Clerk of the Superior Court of Jefferson County, Georgia, in Deed Book 3-N, page 389, one R. H. Clark, a predecessor in title, conveyedto Party of the First Part an electric line and pole easement as to property hereinafter described was a part; and,

WHEREAS, Party of the First Part has constructed no lines and poles on said property and does not propose to do so;

NOW, THEREFORE, in consideration of Ten ($10.00) Dollars cash in hand paid, receipt whereof is hereby acknowledged, Party of the First Part hereby remises, releases, and forever quitclaims to Party of the Second Part, its successors and assigns, all the right, title and interest, claim or demand Party of the First Part has or may have had in and to the following described property, to-wit:

All that tract or parcel of land situate, lying and being in the 82nd District G.M. of Jefferson County, Georgia, containing Fifty Four and Forty Seven One-hundredths (54.47) acres, more or less, being Parcel No. 2 appearing on plat of survey made by Frank R. Ford, Surveyor, dated June 14, 1961, and recorded in the Office of the Clerk of Superior Court of Jefferson County, Georgia, in Deed Book 62, page 376, and being bounded on the North by Georgia State Highway 24 leading from Louisville to Waynesboro, Georgia on the East by property of R. H. Clark, Jr., on the South by property of R. H. Clark, Jr., and on the West by Parcel No. 1 appearing on said plat.

TO HAVE AND TO HOLD the said property to the said Party of the Second Part so that neither the said Party of the First Part nor its successors nor any other person or persons claiming under it shall at any time, by any means, or ways, have, claim or demand any right or title to the aforesaid property or its appurtenances or any rights thereof.

IN WITNESS WHEREOF, the said Party of the First Part has hereunto set its hand, affixed its seal and delivered these presents, theday and year first above written.

Signed, sealed and delivered in the presence of:

Mary R. Gibson

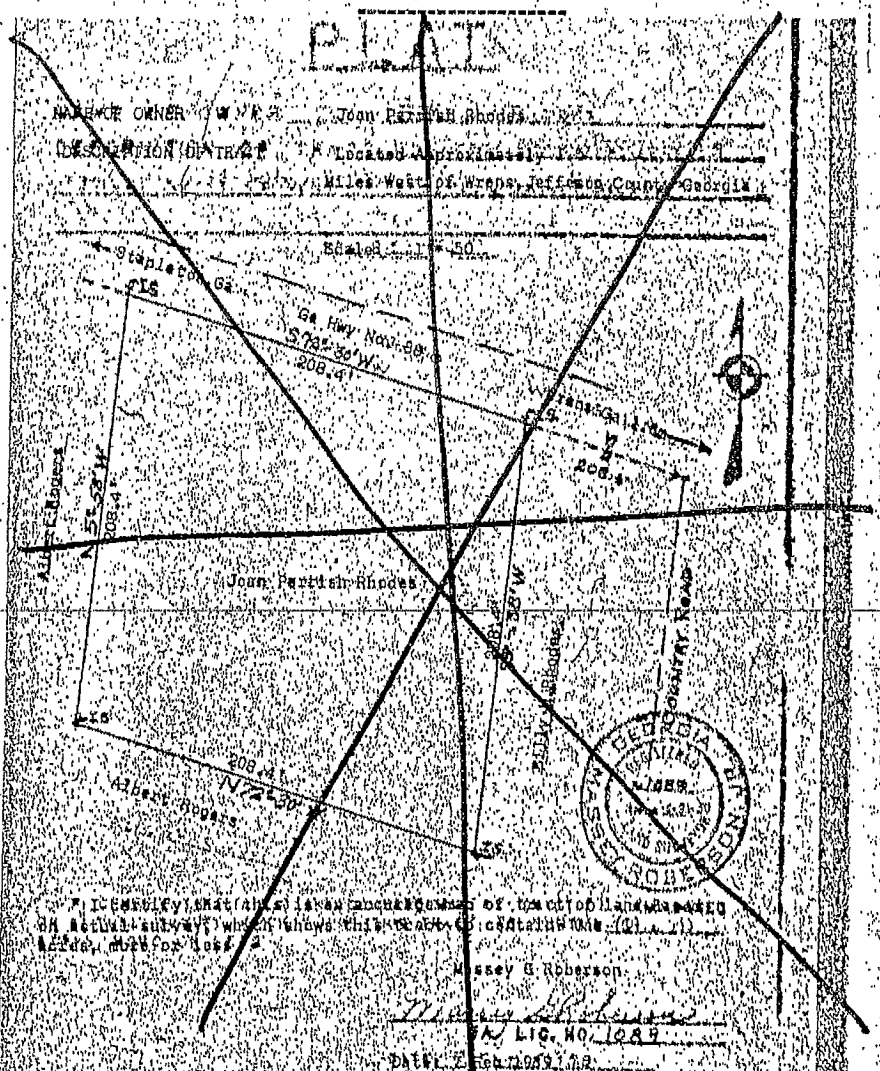
Doris W. Stanley, N.P. (N.P. SEAL)
Notary Public
Notary Public, Jefferson County, Georgia
My Commission Expires Jan. 27, 1968

JEFFERSON COUNTY ELECTRIC MEMBERSHIP CORPORATION

By: L C Rowland President

Attest: J Smith Johnson Secretary

Filed and recorded in office February 4th, 1965
E. J. Smith, Clerk of Court, bm



Recorded February 5, 1965

JEFFERSON COUNTY, GEORGIA
Real Estate Transfer Tax
Paid $ 38.80
Date 7-24-02
Deputy Clerk of Superior Court

GEORGIA JEFFERSON COUNTY
OFFICE OF CLERK OF SUPERIOR COURT
FILED FOR RECORD 7-24-02
AT 4:05 O'CLOCK P M
RECORDED 7-25-02 IN
BOOK 325 PAGE 81-82
DEPUTY CLERK

SPACE ABOVE THIS LINE FOR RECORDING DATA

NOTE TO CLERK OF SUPERIOR COURT:
AFTER RECORDING, THIS DOCUMENT
SHOULD BE RETURNED TO:
W. Durr Smith, Esquire
Hunton & Williams
600 Peachtree Street, N.E.
Suite 4100
Atlanta, GA 30308-2216

WARRANTY DEED

STATE OF GEORGIA

COUNTY OF JEFFERSON

THIS INDENTURE, made this 24th day of July, 2002, by and between MRS. ETHEL B. (Mrs. R. H., Jr.) CLARK, of Jefferson County, Georgia, of the First Part (hereinafter called "Grantor"); and THERMO KING CORPORATION, a Delaware corporation, with a place of business in Jefferson County, Georgia, of the Second Part (hereinafter called "Grantee");

WITNESSETH:

That Grantor, for and in consideration of the sum of TEN ($10.00) DOLLARS AND OTHER VALUABLE CONSIDERATIONS, in hand paid, at and before the sealing and delivery of these presents, the receipt of which is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto Grantee, his heirs and assigns, the following described property:

All that tract or parcel of land lying and being in the 82nd GMD, Jefferson County, Georgia, containing 56.000 acres, and being as appears on plat of survey by Surveying Solutions, Inc., Jeffrey L. Nipper, Georgia Registered Land Surveyor No. 2736, dated June 27, 2002, revised July 2, 2002 and July 3, 2002, and recorded in Plat Book 2, Page 255, Jefferson County Records. Said property fronts to the North on Georgia Highway 24, and is bounded now or formerly as follows: On the East by property of Lizzie Quarterman, property of Tommie Quarterman, and other property of Ethel B. Clark; on the South by other property of

Ethel B. Clark; on the West by other property of Ethel B. Clark and property of Thermo King Corporation; and on the North by Georgia Highway 24. Reference is made to said recorded plat for a fuller and more particular description.

The above-described property is a portion of that 656-acre tract which is described in Warranty Deed from Roger H. Clark, Jr. to Ethel B. Clark, dated October 30, 1964, and recorded in Deed Book 3-Z, Page 519, Jefferson County Records.

TO HAVE AND TO HOLD the said tract or parcel of land, with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of Grantee, its successors and assigns, forever, in Fee Simple.

AND GRANTOR, for her heirs, executors and administrators, will warrant and forever defend the right and title to the above-described property, unto Grantee, its successors and assigns, against the claims of all persons whomsoever.

IN WITNESS WHEREOF, Grantor has hereunto set her hand and seal, the day and year first above written.

Ethel B. Clark (L.S.)
MRS. ETHEL B. (Mrs. R. H., Jr.) CLARK

Signed, sealed and delivered
in the presence of:

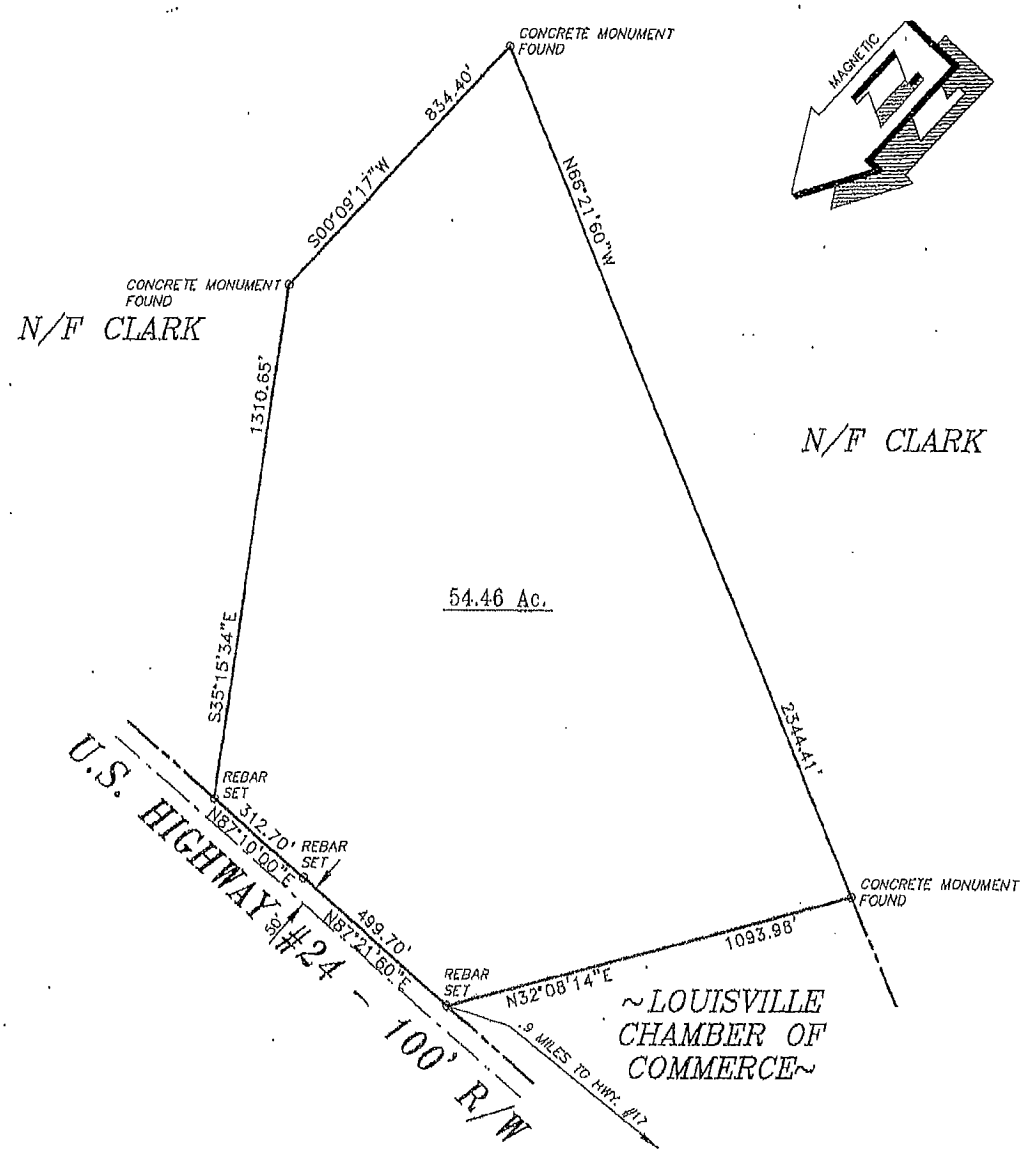
John T. Murphy
Unofficial Witness

Marilyn W. Murphy
Notary Public, State of Georgia
My Commission Expires:

(NOTARIAL SEAL)

Exhibit B
Property Plats

J:\Thermo King\JANUARY 2005\PLAT-DRAWING.dwg - Layout1 02/13/2007 7:04pm rolexand



PLAT FOR

THERMO KING FACILITY

308th. G.M.D.

JEFFERSON COUNTY, GEORGIA

SCALE: 1"=300' JULY 26, 2000

300' 150' 0 300' 600'

SCALE IN FEET

TOPCON GTS-3
MAP CLOSURE-1/1,013,136'
OPEN TRAVERSE

THIS PLAT IS SUBJECT TO ALL EASEMENTS, RIGHTS-OF-WAY AND PROTECTIVE COVENANTS OF RECORD.

RECORDING COPY

GEORGIA REGISTERED No. 1753 7/27/07 LAND SURVEYOR JOHN A. McGILL

JOHN A. McGILL, R.L.S. #1753
McGILL & ASSOCIATES LAND SURVEYORS
934 SHIELDS POND ROAD
THOMSON, GEORGIA 30824
(706) 595-5612

G.I.D. 00123

J:\Thermo King\JANUARY 2005\SURVEY-CERT.dwg — Layout1 02/13/2007 8:33am rolexond

AREA

2,439,360 sq.ft.
56.000 acres

GEORGIA HIGHWAY #24

RIGHT-OF-WAY VARIES

CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD BRG.	CHORD DIST.
C1	482.94	2814.77	N84°19'43"E	482.45
C2	125.48	2914.77	N77°20'43"E	125.47

LINE TABLE		
LINE	LENGTH	BEARING
L1	414.95	N88°52'43"E
L2	20.00	S10°13'17"E
L3	61.46	N79°10'43"E
L4	20.00	N11°25'17"W
L5	84.33	N76°06'43"E
L6	580.60	S19°50'49"E
L7	100.00'	N76°06'28"E
L8	1777.58'	S42°18'15"E
L9	1870.91'	S84°56'02"W
L10	834.34	N01°24'28"E
L11	1305.05	N34°09'32"W

P.O.B.
N 1092775.4852
E 588719.7566
(NAD 83/94) GA EAST

P.O.C.
NGS LA-1AZMK
(NAD 83/94) GA EAST
1085285.0188
590365.6764

N 1092891.4991
E 589859.0736

N12°32'02"W 7870.41'

APPROXIMATE 1.0 MILES TO HWY. #17

COUNTY ROAD #271

7'x5' BOX CULVERT

R/W PER REF. #1

R/W PER REF. #2

R/W MON 0.6' NORTH OF PROPERTY CORNER

#4 RB 0.18' EAST OF PROPERTY LINE

CMF 0.27' EAST OF PROPERTY CORNER (DISTURBED)

BUILDING

15" RCP

APPROX. DIR.

BLDG.

ASPHALT PAVEMENT

SWAMP

TREE LINES (TYP)

N/F TOMMIE QUARTEMAN D.B. 208 PG. 154

N/F LIZZIE QUARTEMAN D.B. 208 PG. 151

N/F TOMMIE QUARTEMAN D.B. 298 PG. 158

N/F THERMO KING REFERENCE #1

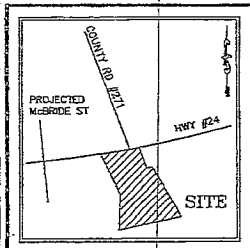
N/F ETHEL CLARK D.B. 157 PG. 58

N/F ETHEL CLARK D.B. 157 PG. 58

N/F ETHEL CLARK D.B. 157 PG. 58

VICINITY MAP

N.T.S.



GENERAL NOTES

1. INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER, AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS, HIS CONTRACTORS, AND/OR HIS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION SHOWN HEREON AS TO SUCH UNDERGROUND INFORMATION.
2. BASIS OF BEARINGS: NAD 84/94 GA. EAST GRID.
3. THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 10,209 FEET AND AN ANGULAR ERROR OF 05" PER ANGLE POINT AND WAS ADJUSTED USING THE LEAST SQUARE METHOD.
4. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND WAS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 598,234 FEET.
5. EQUIPMENT USED: TOPCON 605 ELECTRONIC TOTAL STATION.
6. FIELD WORK FOR BOUNDARY SURVEY COMPLETED ON OR ABOUT 6/14/02. FIELD WORK FOR TOPOGRAPHIC SURVEY STILL IN PROGRESS AS OF THE DATE SHOWN HEREON.
7. EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS A PART OF THIS SURVEY IS NOTED HEREON. ONLY THE DOCUMENTS NOTED HEREON WERE SUPPLIED BY THE SURVEYOR. NO ABSTRACT OF TITLE, NOR TITLE COMMITMENT, NOR RESULTS OF TITLE SEARCHES WERE FURNISHED TO THE SURVEYOR. THERE MAY BE OTHER DOCUMENTS OF RECORD THAT WOULD AFFECT THIS PARCEL.
8. ELEVATIONS ARE BASED ON M.S.L. (NAVD 88).
9. SOME ASBUILT INFORMATION TAKEN FROM AERIAL PHOTOGRAPHY.
10. PROPERTY WAS UNIMPROVED AT THE TIME OF THIS SURVEY.

LEGEND

IPS	IRON PIN SET	LP	LAMP POLE
IPF	IRON PIN FOUND	-Z-Z-	POWERLINE
R/W	CONC. MONUMENT FOUND	MH	MAN HOLE
SS	SANITARY SEWER	CB	CATCH BASIN
FC	FENCE CORNER	JB	JUNCTION BOX
-X-X-	FENCE	DI	DROP INLET
OT	OPEN TOP PIN	HW	HEAD WALL
CT	CRIMP TOP PIN	CMP	CORRUGATED METAL PIPE
#4 REBAR	REINFORCING BAR	RCP	REINFORCED CONC. PIPE
CL	CENTERLINE	SSE	SEWER EASEMENT
R/W	RIGHT-OF-WAY	DE	DRAINAGE EASEMENT
WL	WATER LINE	FH	FIRE HYDRANT
C/O	CLEAN OUT	WV	WATER VALVE
CH	CHORD BEARING	WM	WATER METER
C	CHORD	GV	GAS VALVE
PC	POWER POLE	GM	GAS METER
POC	POINT OF COMMENCEMENT	POB	POINT OF BEGINNING

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

REFERENCES

1. SURVEY FOR THERMO KING DATED 1-6-02. SURVEYED BY McGILL & ASSOCIATES LAND SURVEYORS.
2. G.A. DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP. DATED 10-19-85. PROJECT #ERS 0937(6). PAGE 3 OF 3
3. SURVEY FOR LIZZIE W. QUARTERMAN. DATED 11-23-93. SURVEYED BY WILLIAM L. JOHNSON.
4. SURVEY FOR TOMMY QUARTERMAN. DATED 7-25-01. SURVEYED BY STEVE BARGERON & ASSOCIATES.

SURVEYORS CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAT OR MAP IS, TO THE BEST OF MY KNOWLEDGE, A TRUE AND CORRECT REPRESENTATION OF THE LAND PLATTED HEREON, THAT ALL AS-BUILT CONDITIONS ARE CORRECTLY SHOWN AND THAT THIS SURVEY MEETS CURRENT "MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS"

JEFFREY L. HIPPER, GA. R.L.S. NO. 2735 — 7/3/02 DATE

SURVEY PREPARED FOR:

THERMO KING CORPORATION &
LAWYERS TITLE
INSURANCE CORPORATION

LAND LOT / DM G.M.D. 82 JEFFERSON COUNTY, GEORGIA

LOT N/A BLOCK N/A UNIT N/A SUBDIVISION N/A

SURVEYED: R.P. & C.H. COMPUTED: R.D. APPROVED: J.N.

DATE: 6/27/02
JOB #: 02-188
SCALE: 1" = 200'
PLAT BOOK: PAGE
DEED BOOK: PAGE

REVISION(S)	BY:	DATE:
(1) PER COMMENTS	JN	7/2/02
CORRECTED OWNER & ROAD NAME	JN	7/3/02

SURVEYING SOLUTIONS, INC.

P.O. BOX 320 REM, GEORGIA 30829-0320
TELEPHONE (770) 861-0305 FAX (678) 422-7000
e-mail address: jhipper@surveyingsolutions.com

ALL MATTERS PERTAINING TO TITLE ARE EXCEPTED

JEFFREY L. HIPPER, GA. R.L.S. 2735
1359 HEATHERED WOOD WAY
RCX, GEORGIA 30213
PHONE: (770) 861-0305

This plat was prepared for the exclusive use of the person, persons, or entity named hereon. This plat does not extend to any unnamed person, persons, or entity without the express recertification of the surveyor making such person, persons, or entity.

©

LIST OF ABUTTING PROPERTIES	
Property Parcel Identification	**Parcel Owner and Contact Information**
Parcel 0090 024 (110.46 acres) Voluntary Remediation Program Participant Location: 1430 Highway 24 East Owner: Thermo King Corporation	Thermo King Corporation Accounting Department Attn: David Long 314 West 90th Street Minneapolis, MN 55420 Ingersoll Rand Company 800-E Beaty Street Davidson, NC 28036
Parcel 0090 023 (1.18 acres) 1786 Highway 24 East Borders Thermo King Corp property on the northeast corner	Lizzie W. Quarterman 1786 Highway 24 East Louisville, GA 30434
Parcel 0090 071 (10 acres) 0 Highway 24 East Borders Thermo King Corp property on the northeast corner	Tommie W. Quarterman 8239 Bent Meadow Drive Converse, TX 78109
Parcel 0090 074 (10 acres) 0 Highway 24 East Borders Thermo King Corp property on the east side	David Quarterman 1786 Highway 24 East Louisville, GA 30434
Parcel 0090 025 (272.04 acres) 2134 Highway 24 Borders Thermo King Corp property on the east, south and southwest sides	Mary Clark P.O. Box 188 Louisville, GA 30434
Parcel L004 004 (1.48 acres) 0 Highway 24 East Borders Thermo King Corp property along the west side	Industrial Development Corporation of Louisville, Inc. P.O. Box 467 Louisville, GA 30434
Parcel: Georgia Highway 24 East Borders Thermo King Corp property along the north side	Georgia Department of Transportation Area Office – Louisville 2971 US Hwy 1 North Louisville, Georgia 30434
Parcel No.: L006B009B (0.38 acres) 1371 E Highway 24 East On north side of Highway 24, to the northwest of Thermo King Corp	Lonnie Wayne Thigpen 1391 Highway 24 East Louisville, GA 30434
Parcel No.: L006B011 (0.34 acres) 1391 E Highway 24 East On north side of Highway 24, to the northwest of Thermo King Corp	Lonnie Wayne Thigpen 1391 Highway 24 East Louisville, GA 30434

LIST OF ABUTTING PROPERTIES	
Property Parcel Identification	**Parcel Owner and Contact Information**
Parcel No.: L006B012 (0.38 acres) 1407 Highway 24 East On north side of Highway 24, at the northwest intersection of Meadowview Drive and Highway 24, to the north of Thermo King Corp	Elaine Wasden Youngblood 105 Cain Drive Louisville, GA 30434
Parcel No.: L006B013A (0.47 acres) 1433 Highway 24 East On north side of Highway 24, at the northeast intersection of Meadowview Drive and Highway 24, to the north of Thermo King Corp	Hope M. Arnold P.O. Box 268 Louisville, GA 30434
Parcel No.: L006B014 (1.12 acres) 1461 Highway 24 East On north side of Highway 24, to the north of Thermo King Corp	Hope M. Arnold P.O. Box 268 1461 Highway 24 East Louisville, GA 30434
Parcel No.: L006B015B (1.0 acres) 1487 Highway 24 East On north side of Highway 24, to the north of Thermo King Corp	Jeannette Mack P.O. Box 1003 Louisville, GA 30434
Parcel No.: L006B016 (1.38 acres) 1499 E Highway 24 East On north side of Highway 24, to the north of Thermo King Corp	James B & Shirley L Barr Jackson 602 SW 5th Avenue Delray Beach, FL 33444
Parcel No.: L005 001A (11.59 acres) 0 McBride Road On north side of Highway 24, to the north of Thermo King Corp	William A. Dollar 1117 Highway 24 East Louisville, GA 30434
Parcel No.: L005 259 (0.68 acres) 1131 McBride Street ~~On north side of Highway 24, at the~~ northwest intersection of McBride Street and Highway 24 East, to the north of Thermo King Corp	Lee A. Gibbons 3101 River Road ~~Wadley, GA 30477~~
Parcel No.: L005 185 (1.49 acres) 1026 McBride Street On north side of Highway 24, at the northeast intersection of McBride Street and Highway 24 East, to the northeast of Thermo King Corp	Charles & Catherine Hilton P.O. Box 953 1026 McBride Street Louisville, GA 30434

LIST OF ABUTTING PROPERTIES	
Property Parcel Identification	**Parcel Owner and Contact Information**
Parcel No.: 0090 022 (3.25 acres) 1771 Highway 24 East On north side of Highway 24, to the northeast of the intersection of McBride Street and Highway 24 East, to the northeast of Thermo King Corp	James Thompson & Mildred T. Walker 2 Larchmont Drive Burlington, NJ 08016

APPENDIX G

MONITORING PLAN FOR SEEPS AND SURFACE WATER

APPENDIX G

SEEP AND SURFACE WATER MONITORING

During the post-VRP period after submittal of the Compliance Status Report, groundwater seeps and surface water in Manson Branch will be monitored. The monitoring will be to establish that seep waters containing constituent concentrations exceeding ISWQC do not migrate beyond the boundary of the rip-rap blanket and the VOCs in site groundwater do not cause an exceedance of ISWQC in Manson Branch. The seep and surface water monitoring will be conducted as follows:

1. Samples of the seep water and Manson Branch surface water will be collected once per year during the third or fourth quarter of the year.

2. Seven seep locations will be sampled: MB#2, Seep B, Seep G, Seep H, Seep I Seep L, and Seep #2 as indicated on Figure 2.1-2 of VRP CSR.

3. Four surface water locations in Manson Branch will be sampled: MB#3, MB#5, MB# 15, and MB#16 as indicated on Figure 2.1-2 of VRP CSR.

4. The water samples will be analyzed for the site-specific VOCs using USEPA method 8260B on the attached list.

5. The samples will be collected by directly filling the sample containers from the seep water source where the water is visible above the ground surface. Seeps MB#2 and Seep H are encased in vertical culverts inside the rip-rap blanket. The lids of the culverts will be removed and a sample of the seep water inside the culvert will be collected by directly filling the sample container. Water samples from Manson Branch will be collected by standing downstream of the sample location.

6. Additional volumes of water will be collected and field measured for pH, specific conductance, temperature, and turbidity. The data will be recorded on a field sampling form.

7. Samples will be shipped to an approved environmental laboratory under chain of custody protocols for analysis.

8. Water quality meters will be calibrated upon arrival at the site in accordance with manufacturer's instructions and documented. The meter probes will be rinsed with distilled water between measurements.

9. One field duplicate sample will be collected per sampling event from a location with detected constituent concentrations. The duplicate will be collected using the same

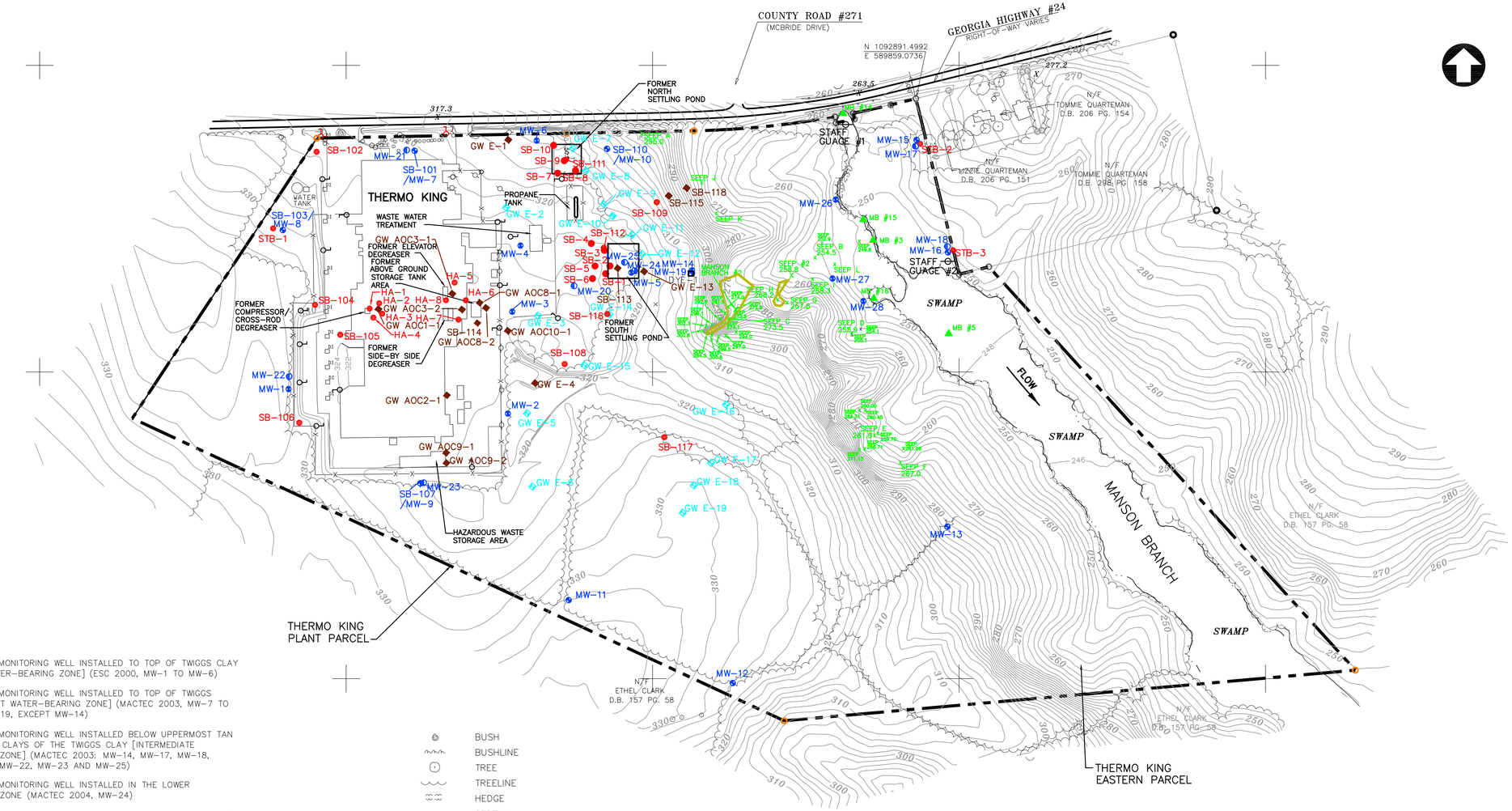
procedures used to collect normal samples. The duplicate will be labeled such that the laboratory cannot differentiate it from a normal sample. The parent and duplicate sample identification will be recorded on the field sampling form.

10. If non-disposable equipment is used to collect samples, it will be decontaminated between sampling locations by washing with non-phosphate detergent and potable water, rinsed with reagent-grade isopropyl alcohol, rinsed with distilled water and dried with clean paper towels. A field rinse equipment blank will be collected from field-decontaminated equipment and analyzed for site-specific VOCs using USEPA method 8260B.

11. Seep and surface water samples will be labeled with the sample location, date and time of collection, and analysis. Chain-of-custody form(s) will be completed. Samples will be placed in a cooler with ice and packaged in accordance with chain-of-custody protocols and shipped to the approved environmental laboratory for analysis.

LIST OF SITE-SPECIFIC VOCs to be ANALYZED IN SEEP AND SURFACE WATER SAMPLES
Benzene
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
n-Butylbenzene
sec-Butylbenzene
tert-Butylbenzene
Carbon tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane
Chloroform
Chloromethane
2-Chlorotoluene
4-Chlorotoluene
1,2-Dibromo-3-chloro-propane
1,2-Dibromoethane
Dibromomethane
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Dichlorodifluoromethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1,-Dichloroethene

LIST OF SITE-SPECIFIC VOCs to be ANALYZED IN SEEP AND SURFACE WATER SAMPLES
cis-1,2-Dichloroethene
trans-1,2-Dichloroethene
1,2-Dichloropropane
1,3-Dichloropropane
2,2-Dichloropropane
1,1-Dichloropropene
Ethylbenzene
Hexachlorobutadiene
Isopropylbenzene
p-Isopropyltoluene
Methylene chloride
Naphthalene
n-propylbenzene
Styrene
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethene
Toluene
1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Trichlorofluoromethane
1,2,3-Trichloropropane
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
Vinyl Chloride
o-Xylene
m-Xylene & p-Xylene
1,4-Dioxane



LEGEND

- MW-1 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
- MW-7 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
- MW-14 — GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23 AND MW-25)
- MW-24 — GROUND-WATER MONITORING WELL INSTALLED IN THE LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
- GW E-2 — DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
- GW E-1 — SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
- SB-7 — SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB-1 TO SB-10, SB-101 TO SB-112, SB-116 AND SB-117 AND HA-1 TO HA-8) (SOIL BORINGS FOR SOIL SAMPLING SB-101, SB-103, SB-107, SB-110 WERE COMPLETED AS MONITORING WELLS MW-7, MW-8, MW-9, AND MW-10 RESPECTIVELY) BORINGS STB-1, STB-2 AND STB-3 ARE STRATIGRAPHIC BORINGS
- SEEP A 299.0 — WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
- SEEP 252.9 — WATER SEEP WITH ELEVATION
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
- STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
- DYE INJECTION WELL

- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- STREAM
- FENCE
- 300 — TOPOGRAPHIC CONTOUR
- DI — DROP INLET
- LIGHT POLE
- PROPERTY BOUNDARY
- EXTENT OF RIP RAP BLANKET

SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. IN SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

SCALE IN FEET
0 200 400

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DRAWN	T. GLADSTONE
CHECKED	R. QUINN
IN CHARGE	D. ALCOTT
DATE	3/2/2016

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SITE SAMPLING LOCATIONS MAP

FIGURE 2.1-2

SCALE	AS SHOWN
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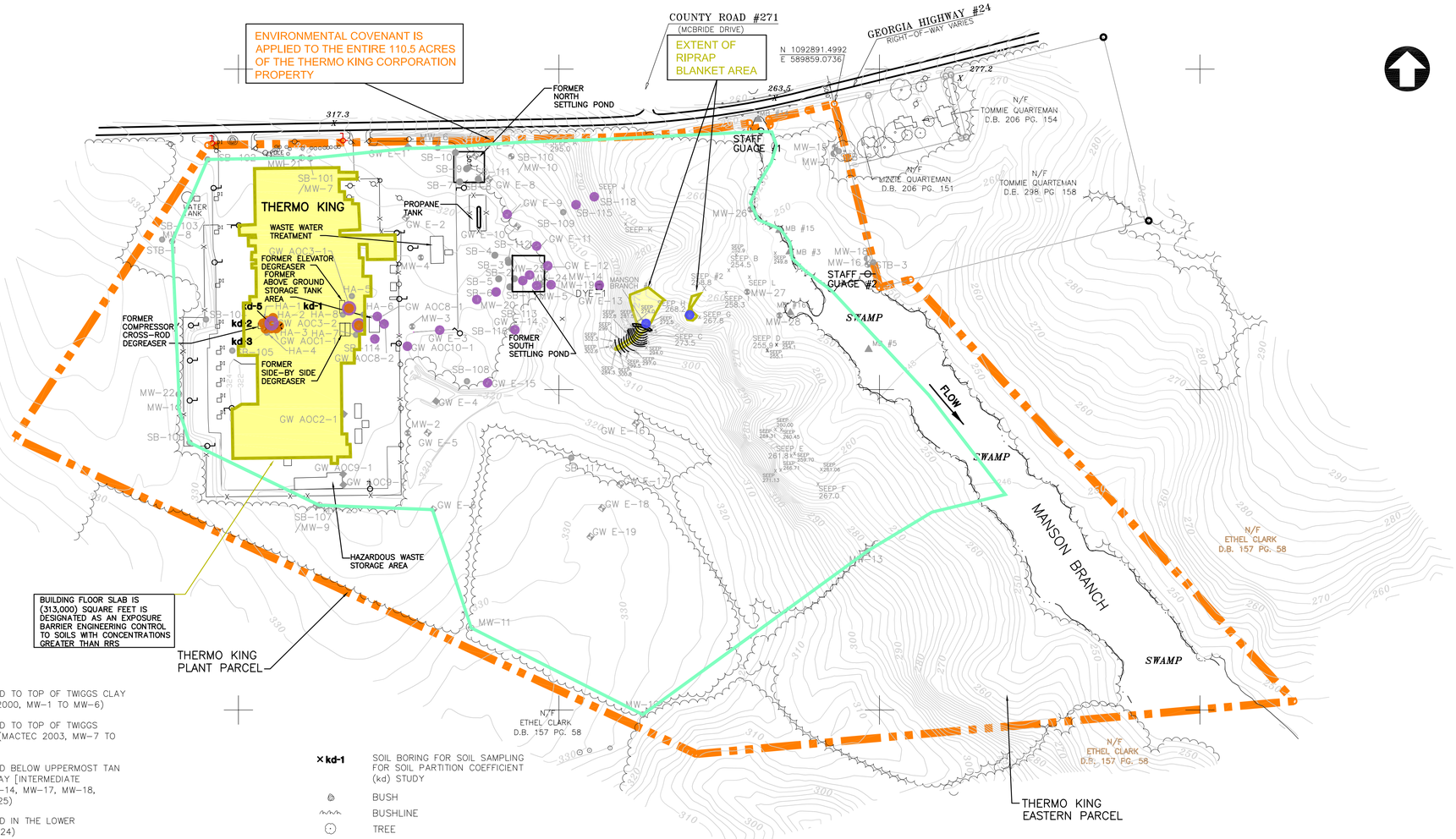
APPENDIX H

OPERATION AND MAINTENANCE PLANS AND INSPECTION SCHEDULES FOR ENGINEERING CONTROLS

Instructions for Completing the Building Concrete Floor Slab Inspection Checklist

1. This building concrete floor slab inspection checklist shall be completed annually during the first semi-annual sampling event and whenever damage is detected or occurs in this area.
2. Drawings and photographs shall be used to document condition and deficiencies, if any, observed during the annual inspection. A figure(s) shall be included in the Slab Maintenance/Repair and Re-inspection Report that shows the location of each area determined to require maintenance or repair.
3. Where conditions are observed that require maintenance or repair, before and after photographs will be taken to document the condition observed and the subsequent maintenance or repair activity. A figure(s) will also be prepared that show the location and orientation of each photograph. These photographs and figures will be included in the Slab Maintenance/Repair and Re-inspection Report.
4. The completed checklists and Slab Maintenance/Repair and Re-inspection Report shall be retained for a period of 3 years.
5. These “instructions” shall be attached to the checklist.

SEE FIGURE 2.3-4 IN VOLUNTARY REMEDIATION PROGRAM COMPLIANCE STATUS REPORT FOR LOCATION OF ENGINEERING CONTROLS TO BE INSPECTED AND MAINTAINED



LEGEND

- MW-1 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (ESC 2000, MW-1 TO MW-6)
- MW-7 — GROUND-WATER MONITORING WELL INSTALLED TO TOP OF TWIGGS CLAY [UPPERMOST WATER-BEARING ZONE] (MACTEC 2003, MW-7 TO MW-16 AND MW-19, EXCEPT MW-14)
- MW-14 — GROUND-WATER MONITORING WELL INSTALLED BELOW UPPERMOST TAN AND BLUE-GRAY CLAYS OF THE TWIGGS CLAY [INTERMEDIATE WATER-BEARING ZONE] (MACTEC 2003: MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23 AND MW-25)
- MW-24 — GROUND-WATER MONITORING WELL INSTALLED IN THE LOWER WATER-BEARING ZONE (MACTEC 2004, MW-24)
- GW E-2 — DIRECT-PUSH TECHNOLOGY BORING FOR GROUND-WATER SAMPLING (LAW 2000: GW E-1 TO GW E-19, UPPERMOST WATER-BEARING ZONE)
- GW E-1 — SOIL BORING FOR SOIL AND GROUND-WATER SAMPLING (LAW 2000 AND MACTEC 2003: GW E-1, GW E-4, GW E-13, GW AOC1-1, GW AOC2-1, GW AOC3-1, GW AOC3-2, GW AOC8-1, GW AOC8-2, GW AOC9-1, GW AOC9-2, GW AOC10-1, SB-113, SB-114, SB-115, AND SB-118, UPPERMOST WATER-BEARING ZONE)
- SB-7 — SOIL BORING FOR SOIL SAMPLING (ESC 2000 AND MACTEC 2003: SB-1 TO SB-10, SB-101 TO SB-112, SB-116 AND SB-117 AND HA-1 TO HA-8) (SOIL BORINGS FOR SOIL SAMPLING SB-101, SB-103, SB-107, SB-110 WERE COMPLETED AS MONITORING WELLS MW-7, MW-8, MW-9, AND MW-10 RESPECTIVELY) BORINGS STB-1, STB-2 AND STB-3 ARE STRATIGRAPHIC BORINGS
- SEEP A 299.0 — WATER SEEP WITH ELEVATION SAMPLED FOR SURFACE WATER FOR LABORATORY ANALYSIS (MACTEC 2003: Seeps A through L, Manson Branch #2, and Seep #2)
- SEEP 252.9 — WATER SEEP WITH ELEVATION
- MB #14 — MANSON BRANCH SURFACE WATER SAMPLING LOCATION (MACTEC 2003: MB#14, MB#15, MB#16)
- STAFF GUAGE FOR MEASURING SURFACE WATER ELEVATION
- DYE INJECTION WELL
- kd-1 — SOIL BORING FOR SOIL SAMPLING FOR SOIL PARTITION COEFFICIENT (kd) STUDY
- BUSH
- BUSHLINE
- TREE
- TREELINE
- HEDGE
- STREAM
- FENCE
- 300 — TOPOGRAPHIC CONTOUR
- DI — DROP INLET
- LIGHT POLE
- PROPERTY BOUNDARY

- CONSTITUENT CONCENTRATIONS IN SOIL DO NOT MEET TYPES 1 OR 2 OR 3 OR 4 RISK REDUCTION STANDARDS (RRS).
- CONSTITUENT CONCENTRATIONS IN GROUNDWATER DO NOT MEET TYPES 1/3 OR 2 OR 4 RISK REDUCTION STANDARDS (MOST RECENT GROUNDWATER ANALYTICAL RESULTS PER LOCATION USED)
- CONSTITUENT CONCENTRATIONS IN SEEP WATER GREATER THAN IN-STREAM WATER QUALITY CRITERIA ISWQC (MOST RECENT ANALYTICAL RESULTS PER LOCATION USED).
- EXTENT OF HSRA DEFINED SITE
- THERMO KING PROPERTY BOUNDARY
- RIP-RAP BLANKET IS AN ENGINEERING CONTROL (APPROXIMATELY 11,100 SQUARE FEET) TO PRECLUDE THE SURFACE EXPRESSION OF SEEP WATER WITH CONCENTRATIONS GREATER THAN IN-STREAM WATER QUALITY CRITERIA (ISWQC)

SCALE IN FEET
0 200 400

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SOURCE: TOPOGRAPHIC AND PROPERTY BOUNDARY SURVEYS BY SURVEYING SOLUTIONS, INC., JULY 2002 AND HOFFMAN & COMPANY INC., USING FEBRUARY 2002 AERIAL PHOTOGRAPH AND GROUND SURVEYING. 2000 SAMPLING LOCATIONS SURVEYED BY McGILL & ASSOCIATES OCTOBER 2000. 2003 AND 2004 SAMPLING LOCATIONS SURVEYED BY MACTEC ENGINEERING AND CONSULTING, INC. IN SEPTEMBER 2003 AND DECEMBER 2004. LOCATIONS OF FORMER NORTH AND SOUTH SETTLING PONDS APPROXIMATED FROM HISTORICAL AERIAL PHOTOGRAPHS.

DESIGNED	N. MCMILLAN
DRAWN	T. GLADSTONE
CHECKED	R. QUINN
IN CHARGE	D. ALCOTT
DATE	3/2/2016

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RISK REDUCTION STANDARDS COMPLIANCE MAP WITH LOCATIONS OF ENGINEERING AND INSTITUTIONAL CONTROLS

FIGURE 2.3-4

SCALE	AS SHOWN
CONTRACT	6122-09-0322
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Concrete Slab Inspection Checklist – Thermo King, Louisville, Georgia

Condition	Yes	No	Description
1. Are there any cracks in the surface of the concrete greater than 1/8" in width?			
a. Crack location:			
b. Crack length:			
c. Crack width:			
2. Are there any signs of settlement?			
a. Location of settlement:			
b. Severity of settlement:			
3. Is there any floor/wall separation on interior or exterior walls?			
a. Location of separation:			
b. Separation width:			
4. Is there any ponding of water?			
a. Location:			
b. Size (Diameter):			
5. Are expansion joints sealed?			
a. Location:			
b. Condition of sealing material:			
6. Are there areas where concrete has been repaired/replaced?			
a. Location:			
7. Are there any areas of discoloration and/or staining in the concrete?			
a. Location:			
b. Size (Diameter):			
c. Apparent Source:			
8. Is there any evidence of animals burrowing underneath the slab?			
a. Location:			
b. Diameter of hole:			

Additional Inspection Items	Y	N	N/A	Location
Abrasion				
Blistering				
Chemical Deterioration				
Honeycombing				
Pitting				
Reinforcement Corrosion				
Spalling				
Other				

Inspector:_____ **Company:**_____ **Date:**_____

Slab Maintenance/Repair and Re-Inspection Report

Item	Maintenance or Repairs Required	Conducted by	Date Completed	Re-Inspection Date and Initials

Inspector: _____ **Company:** _____

Date: _____

Instructions for Completing Sub-Slab Soil Management Plan Checklist

1. Prior to conducting the proposed sub-slab soil disturbing activities, the contractor shall prepare the following project-specific plans::
    - Project-Specific Sub-Slab Soil Disturbance and Management Plan
    - Health and Safety Plan
    - Waste Management Plan with decontamination procedures

2. Drawings and photographs shall be used to document conditions observed during the disturbance, soil management and restoration activities. A figure(s) shall be included in the Soil Disturbance Management Report that shows the location of those areas where sub-slab soils will be disturbed. A figure(s) shall also be prepared that shows the location and orientation of each photograph. These before and after photographs will be taken to document the conditions observed and the subsequent soil management and restoration activity.
3. The completed checklists and Soil Disturbance Management Report shall be retained for a period of 3 years.
4. These “instructions” shall be attached to the checklist.

Sub-Slab Soil Disturbance Management Plan Checklist – Thermo King, Louisville, Georgia

Condition	Status	Yes	No	Description/Comment
Preparing for Sub-Slab Soil Disturbance				
Due to environmental conditions below the floor slab, precautions shall be taken to protect human health and ensure contaminated soils are managed properly.	Will the soil disturbance result in removal or modification of the main building floor slab?			
	Where will the disturbance be conducted (attach figure)?			
	How deep will the disturbance be?			
	What is the reason for the disturbance?			
Since Thermo-King is responsible for monitoring compliance with the Voluntary Remediation Plan, they shall be apprised of any changes or impacts to engineering controls (i.e. the slab) at the site.	Has Thermo-King been apprised of the work to be conducted and have they reviewed and approved the Project-Specific Sub-Slab Soil Disturbance and Management Plan for this project? (attach Plan to this Checklist)			
The Site Sub-Slab Soil Management Plan requires a Health and Safety Plan (HASP) that meets OHSA requirements and a Waste Management Plan (WMP) to be prepared. The HASP details actions that shall be taken to protect human health during excavation activities and prevent exposure to soil contaminants including personal protective equipment needed, air monitoring, and dust control. The WMP shall detail the management of the soil when excavated including sampling, segregation of contaminated soils, and offsite disposal. The WMP shall also include an appendix with the project-specific decontamination procedures in accordance with Section 6.0 of the Site Sub-Slab Soil Management Plan.	Has a HASP and Waste Management Plan been prepared? (attach both Plans to this checklist)			
	Has guidance been provided to workers on what proper Personal Protective gear is required and has gear been provided to workers?			
	Has equipment been provided to monitor air during the project and are personnel trained and have experience operating it?			
	Is the equipment needed to control dust in place and have workers been instructed in steps to take to control dust?			

Condition	Status	Yes	No	Description/Comment
Conduct Soil Disturbance				
Prior to disturbing the slab, utilities shall be identified and marked.	Are utilities located and marked?			
Due to contaminants present in sub-slab soils, active monitoring using a PID or equivalent monitor shall be used to screen soil and protect human health	Will a PID or equivalent detector and particulate meter be used to screen the breathing zone for health and safety purposes? If not, what will be used?			
	Has a log sheet been provided to record measurements taken during the project?			
Describe soil disturbance (excavation, trenching, or drilling, etc.)				
Contaminated materials, including soils and concrete shall be properly segregated from non-contaminated soils, and managed according to environmental regulations.	Were contaminated materials separated from non-contaminated materials based on visual staining, olfactory evidence and/or elevated PID screening results?			
	Were contaminated materials placed on and covered with plastic sheeting, protected from contact with storm water and staged in a location where there will be no contact with people or non-contaminated materials? Do not store contaminated materials inside of facility.			
The area shall be restored according to ASTM standards and original construction conditions.	Was disturbed area restored by backfilling with clean fill, soil or gravel and compacted in accordance with ASTM D-1557.			
	Was the concrete floor slab restored to the thickness of the original slab with matching reinforcement and expansion joints, as appropriate, to equivalent condition prior to disturbance?			
Equipment used for excavation shall be decontaminated.	Was equipment decontaminated? Were materials used to decontaminate equipment properly containerized?			

Condition	Status	Yes	No	Description/Comment
Post Slab and Soil Disturbance				
Contaminated soils and decontamination materials shall be disposed of according to local, state, and federal regulations including proper characterization.	Were representative composite samples collected of the contaminated soils and decontamination materials and analyzed for constituents of concern (site VOCs) and other parameters required by the disposal facility?			
	Was the disposal facility selected based on analytical results and permitted ability to receive contaminated soil?			
	Were the contaminated soils and decontamination materials contained, characterized and disposed of properly within 30 days of excavation? (Attached disposal records including manifests and certificates of disposal to this checklist)			
A Soil Disturbance Management Report shall be prepared and attached to this Checklist and provided to Thermo-King. The Report shall include a description of the project, field notes and monitoring information, equipment decontamination documents, clean fill data, waste analysis, waste manifests, and disposal certifications. Photos taken to document the project shall also be included in the report.	Is the description and documentation of soil disturbance activities documented with photographs, drawings, and/or surveying?			
	Is the description and documentation of how the soils were managed including waste sampling procedures, waste analytical results, manifests, and disposal certificates included in the report?			
	Were the description and documentation of the restoration of the disturbed areas documented with photographs and drawings?			

Person Who Completed Checklist:_____ **Company:**_____ **Date:**_____

Instructions for Completing the Rip-Rap Blanket Inspection Checklist

1. This Rip-Rap Blanket inspection checklist shall be completed annually and whenever damage is detected or occurs in this area. The blanket will also be inspected after a 25-year, 24-hour rainfall event.
2. Drawings and photographs shall be used to document condition and deficiencies, if any, observed during the annual inspection. The condition of the blanket at the time of inspection will be compared to previous photographs to assist with gauging if repairs or maintenance is needed. A figure(s) shall be included in the Rip-Rap Blanket Maintenance/Repair and Re-inspection Report that shows the location of each area determined to require maintenance or repair.
3. Where conditions are observed that require maintenance or repair, before and after photographs will be taken to document the condition observed and the subsequent maintenance or repair activity. A figure(s) will also be prepared that show the location and orientation of each photograph. These photographs and figures will be included in the Rip-Rap Blanket Maintenance/Repair and Re-inspection Report.
4. The completed checklists and Rip-Rap Blanket Maintenance/Repair and Re-inspection Report shall be retained for a period of 3 years.
5. These “instructions” shall be attached to the checklist.

THERMOKING LOUISVILLE, GEORGIA
Rip-Rap Blanket Maintenance Inspection

INSPECTION ITEM	OBSERVATION		CONDITION			Weather Conditions: _____
	YES	NO	NA	MN	IA	COMMENTS (Indicate Locations on Figure 1 and Attach Photographs)
ACCESS ROAD						
Erosion						
Ruts/Depressions						
Excess Vegetation/Fallen Trees						
RIPRAP FLUME TO CHECK DAM						
Erosion						
Settlement of Rip-Rap						
Sediment Build-up in Check Dam						
Excess Vegetation/Fallen Trees						
MB#2 RIPRAP BLANKET						
Erosion						
Settlement of Rip-Rap						
Water Flowing on Surface						
Sediment Build-up/Plugging						
Excess Vegetation/Fallen Trees						
Sampling Vault Condition						
SEEP H RIPRAP BLANKET						
Erosion						
Settlement of Rip-Rap						

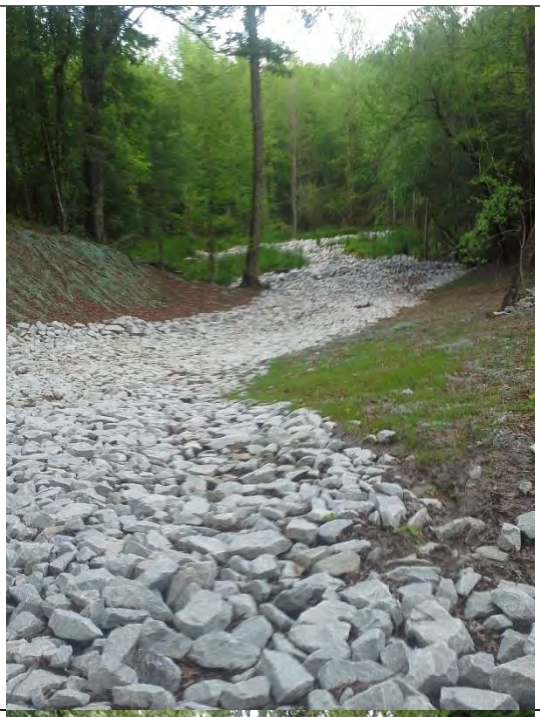
THERMOKING LOUISVILLE, GEORGIA
Rip-Rap Blanket Maintenance Inspection

INSPECTION ITEM	OBSERVATION		CONDITION			Weather Conditions: _____
	YES	NO	NA	MN	IA	COMMENTS (Indicate Locations on Figure 1 and Attach Photographs)
Water Flowing on Surface						
Sediment Build-up/Plugging						
Excess Vegetation/Fallen Trees						
Sampling Vault Condition						
VEGETATED EMBANKMENT						
Erosion						
Excess Vegetation/Fallen Trees						
Bare Spots						
OTHER OBSERVATIONS						

DATE OF INSPECTION:		INSPECTOR:	
			(Print)
			(Signature)

PHOTOGRAPHS

Thermo King Rip Rap Blanket
Louisville, Georgia
Photographic Log



Client: Ingersoll Rand
Location: ThermoKing, Louisville, GA
Project: Riprap Blanket Inspection
Date: 4/29/13
Photo #: 184826
Photographer:
Description: Riprap blanket looking down at MB#2 from top of slope Blanket in good condition

Client: Ingersoll Rand
Location: ThermoKing, Louisville, GA
Project: Riprap Blanket Inspection
Date: 7/12/13
Photo #: 0622
Photographer:
Description: Looking up at top of slope from check dam near MB#2 Blanket with vegetation that needs to be removed

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Thermo King Rip Rap Blanket
Louisville, Georgia
Photographic Log

Client: Ingersoll Rand

Location: ThermoKing, Louisville, GA

Project: Riprap Blanket Inspection

Date: 1/9/14

Photo #: 077

Photographer:

Description: Riprap blanket looking down at MB#2 from top of slope

Blanket in good condition

Client: Ingersoll Rand

Location: ThermoKing, Louisville, GA

Project: Riprap Blanket Inspection

Date: 1/9/14

Photo #: 078

Photographer:

Description: Riprap blanket and check dam at MB#2

Blanket check dam with sediment that needs to be removed

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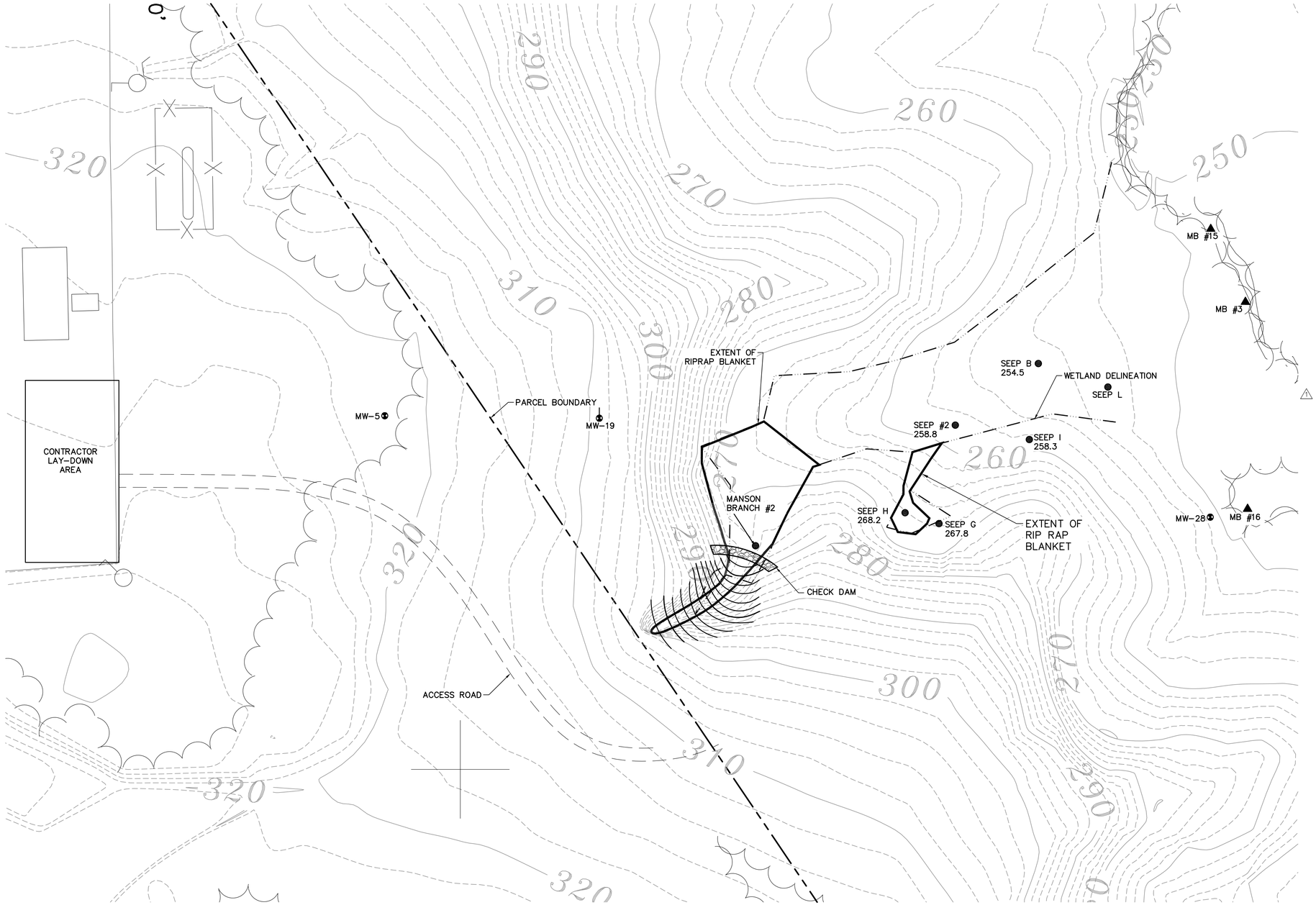

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DESIGNED FIG 1 DRAWN T. GLADSTONE CHECKED R. QUINN IN CHARGE D. ALCOTT DATE 3/2/2016		THERMO KING CORPORATION LOUISVILLE, GEORGIA	RIPRAP BLANKET AREA FIGURE 1

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APPENDIX I

RESPONSE TO EPD COMMENTS JANUARY 28, 2016 AND FEBRUARY 4, 2016

RESPONSE TO GEORGIA ENVIRONMENTAL PROTECTION DIVISION JANUARY 28, 2016 COMMENTS ON GROUNDWATER FATE AND TRANSPORT MODELLING THERMO KING CORPORATION – LOUISVILLE, GEORGIA March 10, 2016

COMMENT #1: Response to July 16, 2012 EPD Comment #3: The calculations provided in the response to this comment may be considered a very basic, simplistic model that could be used in lieu of a Biochlor model for predicting the fate and transport of contaminants in the Upper Water Bearing Zone (UWBZ). However, what was provided is incomplete as follows:

a. A table summarizing parameter values used in in the calculations and their sources should be provided.
b. Isoconcentration contour maps should be provided to justify contaminant concentrations and plume dimensions used in the "model".
c. The potential future impact of regulated TCE daughter products at the seeps and Manson Branch should also be assessed.
d. The maximum allowable concentrations of TCE and its daughter products that will not result in an unacceptable impact to Manson Branch should be determined for comparison to groundwater analytical data at multiple locations along the modeled flow path. You may assume there will be dilution of contaminants through mixing with surface water in the stream for this purpose.

RESPONSE TO COMMENT #1: See Appendix D of the March 10, 2016 VRP CSR

COMMENT #2: Responses to July 16, 2012 EPD Comments #8 and 15 (all parts):

a. The proposed remedial action for impacted groundwater includes in part a demonstration of compliance with Type 5 RRS based on the groundwater fate and transport effort described in Progress Report #3. BioChlor modeling software assumes that the dominant natural attenuation process in groundwater at the site is biotransformation of the initial substance released (TCE) and its daughter products through reductive dechlorination. You should first demonstrate that groundwater conditions in the IWBZ at the site are appropriate for biotransformation to occur before comparison of modeled results with the biotransformation/degradation concentrations predicted by the model. Your evaluation should be consistent with the Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, U.S. EPA, 1998, which uses a scoring system to test if biotransformation is occurring. An interactive score sheet based on the above protocol can be accessed through the BioChlor Software (upper right hand corner of the model input sheet). Please conduct the referenced evaluation/test and provide EPD with a copy(ies) of the completed scoring sheet(s) with the sources of input clearly identified and your conclusions regarding the suitability of aquifer conditions for biotransformation based on the resultant score(s).

RESPONSE TO COMMENT #2.a: See Table E1 in Appendix E of the March 10, 2016 VRP CSR

b. A table(s) of model input values and their source/justification used to calibrate the model and for the predictive model runs is necessary documentation that should be provided for EPD evaluation of groundwater contaminant fate and transport modeling (modeling) efforts and conclusions. References to the Biochlor model input sheets without the table(s) are not sufficient as:
    i. The sources/justification of the input parameter values used in the modeling effort are not provided therein. In general, EPD prefers that measured hydrogeological and biotransformation input parameter values be employed whenever possible, which is consistent with the recommendations for data entry provided in the

BioChlor User's manual. Any input values that are neither site-specific values nor default reference values should be demonstrated to be conservative and result in reasonably conservative predictions. The table referenced above is a critical part of the documentation necessary for EPD evaluation of the modeling effort.

RESPONSE TO COMMENT #2.b.i: See Sections E2.5 and E2.6, and Table E5 in Appendix E of the March 10, 2016 VRP CSR

ii. Several input parameter values shown on the model input sheets appear not to have been used by the model and should not appear on the input sheets provided to EPD as documentation. For instance, values for matrix bulk density, fractional organic carbon (foc), and Organic Carbon Partition Coefficient (Koc), parameters shown on the input sheets were not used by the model to determine individual and/or common retardation factors (R). Rather, it appears that the modeler directly input a common R value. Further note, the common R value of 1.62 used by the model presented in Progress Report #3 is not the median of the R values for TCE, DCE, and vinyl chloride, which is 1.34. The 1.62 value appears to be based on the inclusion of R values of 1.0 for both tetrachloroethene (PCE), which was not released at the site, and ethene, a potential degradation product for which groundwater analytical data was not provided to confirm its presence in groundwater.

RESPONSE TO COMMENT #2.b.ii: Parameter values not used in model are no longer shown in the input spaces.

All input values used by the modeling software for each model run should be summarized on the referenced table. If an input value was acquired from literature, a bibliographic reference should be provided along with any field observations, if any, used in selecting the literature value. EPD should be able to access the reference and verify the values used.

RESPONSE TO COMMENT #2.b.ii-continued: See Sections E2.5 and E2.6, and Table E5 in Appendix E of the March 10, 2016 VRP CSR

c. Note the following regarding a few of the input values shown on the model Input Sheets provided in Progress Report #3:

i. Advection: EPD could not replicate the seepage velocity of 16.2 ft/yr using the hydraulic conductivity, hydraulic gradient, and effective porosity values shown on the model input sheets provided. EPD prefers that the three parameters used by the model to estimate seepage values be manipulated based on field/laboratory measurements and observations (e.g., logged matrix description), rather than manipulating the seepage velocity value directly.

RESPONSE TO COMMENT #2.c.i: See Section E2.1 in Appendix E of the March 10, 2016 VRP CSR

ii. Dispersivity: The isoconcentration map requested in Comment #8.c of the July 2012 EPD letter should be provided to justify plume dimensions used to determine dispersivity values used by the model and may be constructed by an experienced

groundwater scientist using a historically acquired analytical data set representing the longest observed plume length to date. Acceptable methods for estimating dispersivity values are outlined in the Biochlor User's Manual.

RESPONSE TO COMMENT #2.c.ii: See Section E2.2 in Appendix E of the March 10, 2016 VRP CSR. The plume length used in the model was based on observed data.

iii. Retardation:

- The organic carbon partition coefficient (Koc) value used is consistent with the value posted on the EPA Regional Screening Level (RSL) Tables for 1,1-DCE. EPD prefers that the Koc input value of 40 L/kg for cis-1,2-DCE, posted on the current RSL tables, be used in future modeling efforts as it is the DCE isomer most likely to be generated during biotransformation of TCE.
- Biochlor modeling results are typically very sensitive with regard to foc concentration input values; therefore, the modeler should default to a value of 0.001, as referred to as a typical default value used for this parameter in the Biochlor User's Manual, unless a site-specific value is determined by the collection and analysis of one or more samples of the aquifer modeled as referenced in Comment #8.e of the July 2012 EPD letter.

RESPONSE TO COMMENT #2.c.iii: See Section E2.3 in Appendix E of the March 10, 2016 VRP CSR.

iv. Source Data:

- Please clarify why a decay source constant (ks) of 0.024 was used in modeling. Based on the graph provided as documentation, the slope of the least squares line, which corresponds to the ks, is 0.026 not 0.024. Furthermore, any graphs provided in the future to justify the value used for this parameter should identify the data set (location and date) represented, which was not provided on the referenced graph in Appendix A of Progress Report #3.
- The source width used in the model should be justified using the isoconcentration map requested in EPD Comment #8.h of the July 16, 2012 letter.

RESPONSE TO COMMENT #2.c.iv: See Sections E2.5 and E2.5.1 in Appendix E of the March 10, 2016 VRP CSR. The width of the source was estimated based upon analytical results.

COMMENT #3: Responses to July 16, 2012 EPD Comments #9 through #11 (Model Calibration and Analysis):

a. Not only does the overall shape of the predicted concentration curve need to roughly correspond with the curve of the plotted observed groundwater analytical results at the comparison locations, the predicted concentrations should either be the same as, or slightly greater than the actual contaminant concentrations observed on the date calibrated to. The "calibration" run provided in Progress Report #3 significantly under predicted contaminant concentrations at MW-25 (by more than 1 mg/L) using MW-14, an upgradient well, as the source location.

RESPONSE TO COMMENT #3.a: See Section E3.1 in Appendix E of the March 10, 2016 VRP CSR for model calibration and Figures E4, E5, and E6.

b. The predictive concentration curves for the calibration run representing non-degradation of contaminants were not shown on the model output sheets provided in Progress Report #3. Both types of predictive concentration curves assuming no degradation and active biotransformation, should be generated and shown on output sheets for all modeling runs.

RESPONSE TO COMMENT #3.b: Both curves are shown on Figures E4, E5, and E6 in Appendix E of the March 10, 2016 VRP.

c. It may be difficult or impossible to calibrate the model to observed contaminant concentrations at every comparison location due to the scarcity of actual detected contaminant concentrations outside the source area and lack of groundwater data for the IWBZ between monitoring wells MW 20 and MW-22. In the absence of groundwater analytical data between MW-20 and MW-22, the modeler should attempt to calibrate the model to the observed concentrations at the source (MW-25) and possibly the most immediate downgradient monitoring well (MW 20). The model should then be allowed to over predict concentrations in monitoring wells located further downgradient during the model calibration run to be conservative

RESPONSE TO COMMENT #3.c: See Section E3.1 in Appendix E of the March 10, 2016 VRP CSR for model calibration.

COMMENT #4: Responses to July 16, 2012 EPD Comments #12 (Predictive and Validation Runs) and #15 (Documentation):

a. Maximum Extent of Contaminant Plume(s): Please provide output sheets representing: 1) the predicted year(s) that the TCE, DCE, and vinyl chloride plumes cease to migrate downgradient and 2) plume conditions on dates immediately before and after showing the plume migrating before and retreating/ afterward.

RESPONSE TO COMMENT #4.a: See Figures E13, E16, and E18 in Appendix E of the March 10, 2016 VRP CSR for model calibration.

b. Validation Runs: Validation of the model calibration run should be conducted by comparison of one or more actual past and/or future analytical data sets against predicted groundwater contaminant concentrations for the dates the data sets were acquired. This should be conducted by manipulating the simulation time and possibly the modeled area length for the calibration run and directly comparing observed concentrations to the predicted concentrations. Documentation should consist of: 1) copies of the model output sheets representative of the sample collection dates for the comparison data sets and 2) a table summarizing predicted contaminant concentration and actual analytical results by dates and locations. Conclusions regarding the validity of the modeled predictions should be provided in narrative form. Note:
    - In the subject progress reports, actual groundwater analytical results for groundwater samples collected after 2012 were improperly compared to the biotransformation prediction curve representing 2012 predicted contaminant concentrations.

- The validation run results could indicate the need to collect additional site-specific field data for better calibration of the model.

RESPONSE TO COMMENT #4.b: See Section 3.2 and Figures E8, E9, and E10 in Appendix E of the March 10, 2016 VRP CSR for model calibration.

c. Cleanup Standard Determination: Using the model run representative of the maximum extent of the contaminant plume referenced in Part a of this comment, please:
   i. Manipulate source concentrations for TCE, DCE, and vinyl chloride to determine the maximum concentrations of each contaminant at the source area that will not result in an unacceptable impact at the point-of-exposure(s) (POE) and the downgradient property boundary, if not the POE. Copies of the associated output sheets for this model run should be provided to EPD.
   ii. Using the model run referenced immediately above, manipulate the modeled time to represent five years beyond the last monitoring event to be reported in the VRP CSR due in March 2016 to predict the maximum acceptable contaminant concentrations for comparison to monitoring data if it becomes necessary to extend groundwater monitoring beyond removal of the participating property from the HSI. Note that the modeled area length may also need to be manipulated in order for the model to show the predicted contaminant concentrations at the specified monitoring locations on the associated output sheets, which should be provided to EPD.

RESPONSE TO COMMENT #4.c: Actual current constituent concentrations detected in site wells are less than those used in the IWBZ modelling.

RESPONSE TO GEORGIA ENVIRONMENTAL PROTECTION DIVISION FEBRUARY 4, 2016 COMMENTS ON STATUS REPORTS #3 THROUGH #9
THERMO KING CORPORATION – LOUISVILLE, GEORGIA
March 10, 2016

RESPONSES TO JULY 16,2012 EPD COMMENTS (APPENDIX A OF PROGRESS REPORT #3): EPD addressed the responses to Comments #3, 8 through 12, and 15 of the July 16, 2012 letter in an email sent to your attention on January 28, 2016. Furthermore, EPD has no comments at this time regarding the responses to Comments #1, 4, 6, 13, 14, and 17 in the July 16, 2012 EPD letter. However, please find EPD's comments regarding the responses to the remaining July 16, 2012 comments below which reference the July 2012 comments by the numbers assigned at that time:

COMMENT #1: Response to EPD Comment #2: The requested revised cross-section and close-up portion of the cross-section were provided in Progress Report #3. However, some important information was not shown and should be included on cross-sections provided in future submittals:

a. Analytical results for groundwater, seep water, and surface water samples collected during the most recent monitoring event.

b. lsoconcentration contour lines depicting the "delineated" and non-compliant [in relation to appropriate human and ecological cleanup standards] areal extents of impacted groundwater (depicted by individual impacted aquifer zone), seep water, and surface water as appropriate.

c. Soil boring and sample intervals intersected by the line of cross-section. Ideally, soil analytical results should be posted as well. Analytical results representing soil no longer in-situ should be clearly identified as such. Soil sample analytical results should also be compared to appropriate delineation and cleanup standards.

d. Source areas intersected by the cross-sections including settling ponds, degreasing areas, etc.

e. Points of exposure and receptors as relevant (e.g., hypothetical drinking water well, etc.).

RESPONSE TO COMMENT #1: Hydrologic Profiles A-A', AA-AA', B-B', C-C', and D-D' (Figures 3.0-2 through 3.0-6) are provided in the March 10, 2016 VRP CSR. The profiles have been updated with the December 2015 water results. Soil analytical results are also shown on the profiles. Soils have not been excavated on the Site, so the existing soil data is representative of current in-situ conditions.

COMMENT #2: Response to EPD Comment #5: EPD concurs with the revised Type 2 and 4 Risk Reduction Standards (RRS) for cis-1,2-Dichloroethene (cis-1,2-DCE) and chloroform in soil as presented on Table B-1 provided in Progress Report#3. EPD previously concurred with the remainder of the RRS for soil as summarized on the referenced table. The Compliance Status Report (CSR) to be submitted in March 2016 should include the following to justify proposed remedial actions, including the dimensions and locations of areas for which engineering and/or institutional controls are to be implemented:

a. A figure showing all historical soil sampling locations with: 1) analytical results for soil samples representing in-situ conditions at the site (this includes

historical data that does not have later confirmation data) and 2) isoconcentration lines representing the delineation standards, those areas not in compliance with residential RRS (highest values between Type 1 and Type 2 RRS), and those areas not in compliance with non-residential RRS (highest values between Type 3 and Type 4 RRS).

RESPONSE TO COMMENT #2.a: Figure 2.3-1 shows the soil sampling locations with the analytical results and those locations where soil concentrations exceed Types 1 through 4 RRS. Soils have not been excavated on the Site, so the existing soil data on Figure 2.3-1 is representative of current in-situ conditions. Figure 2.3-4 also shows the locations where soil concentrations exceed Types 1 through 4 RRS which is primarily beneath the main building and shows the engineering controls (building floor slab and rip-rap blanket) locations and dimensions. The environmental covenant is the only institutional control and it covers the entire 110.5 acres of the Site.

b. A table similar to Table 6.1 in the December 22, 2010 Addendum to the VRP Application which compares: 1) historical maximum contaminant concentrations detected in soil and 2) maximum contaminant concentrations for soil samples representing current in-situ soil conditions if remedial actions such as excavation have occurred with subsequent confirmation samples.

RESPONSE TO COMMENT #2.b: Table 2.3-5 presents the maximum detected soil concentrations and compares them to the RRS calculated in 2012. Because no soils have been excavated, the existing data is representative of current in-situ soils.

COMMENT #3: Response to EPD Comment #7: This comment has been adequately addressed with the most recent version of the environmental covenant submitted on October 30, 2015 for the Director's signature. The covenant will be further addressed under separate cover if necessary.

RESPONSE TO COMMENT #3: Noted

COMMENT #4: Response to EPD Comment #16: The depth to pump intake was not recorded on several of the field sampling logs provided in the subject progress reports. Please ensure that this information is recorded on field sampling logs provided in future submittals. Furthermore, the information referenced in Comment #7.a of this letter should also be included on future field sampling logs.

RESPONSE TO COMMENT #4: The field sampling forms for the December 2015 sampling event indicates the depth the pump intake was positioned.

PROGRESS REPORTS #3 THROUGH 9:

COMMENT #5: Conceptual Site Model (CSM): A complete, updated CSM should be included with the CSR to be submitted in March 2016. The CSM should summarize all the information (including

figures and tables) required by §391-3-19-.06(3)(b)2. and 3. of the Georgia Rules for Hazardous Site Response (the Rules) and the following:

a. Cross-sections provided in the Voluntary Investigation and Remediation Plan should be updated to include new information acquired since their last submittal.

RESPONSE TO COMMENT #5.a: Hydrologic Profiles A-A', AA-AA', B-B', C-C', and D-D' (Figures 3.0-2 through 3.0-6) are provided in the March 10, 2016 VRP CSR. The profiles have been updated with the December 2015 water results.

b. Figures summarizing the most recent soil, groundwater, seep water, and surface water analytical results separated according to environmental media. Groundwater results should be separated according to water-bearing zones. Seep water and surface water results should be included with the Upper Water-Bearing Zone (UWBZ) groundwater results. Isoconcentration contours indicating the current: 1) delineated extent of contamination, 2) delineated extent of contamination greater than residential RRS, and 3) delineated extent of contamination greater than non-residential RRS should be superimposed on the soil and groundwater analytical summary figures. Surface water and seep water analytical results exceeding the Georgia In-Stream Water Quality Standards (if any), should be clearly identified on the UWBZ isoconcentration groundwater map.

RESPONSE TO COMMENT #5.b: Figure 2.3-1 shows the site soil data and the delineation of site constituents to non-detect concentrations. Figure 2.3-2 shows the Uppermost water-bearing zone groundwater, seep and Manson Branch surface water data and the delineation of site constituents to non-detect concentrations. Figure 2.3-3 shows the Intermediate water-bearing zone groundwater data and the delineation of site constituents to non-detect concentrations. Figures 2.3-1, 2.3-2, 2.3-3 and 2.3-4 show the locations where soil and groundwater concentrations exceed the Types 1 through 4 RRS.

c. Tables summarizing the final approved delineation standards and cleanup standards with the criteria for selection clearly identified.

RESPONSE TO COMMENT #5.c: Tables 2.3-1 (surface soil), 2.3-2 (Subsurface soil), 2.3-3 (groundwater), and 2.3-4 (seep and surface water) present the analytical results for each of the media with the delineation criteria and the highest RRS concentration and applicable ISWQC.

d. A figure depicting the closest potential receptors in relation to the contamination at the site.

RESPONSE TO COMMENT #5.d: The site constituent concentrations are confined to the interior of the Thermo King property. Fate and transport modelling shows that the groundwater plume will not impact off-property receptors with constituent concentrations above MCLs. The current

and future industrial workers are the most likely on-site receptors. Figure 2.3-4 shows the locations where soil and groundwater exceed RRS and the controls that are in place to prevent exposure.

COMMENT #6: Monitoring and Maintenance Plan: Pursuant to §391-3-19-.07(10)(b) of the Rules, compliance with Type 5 RRS requires long-term monitoring and maintenance, as appropriate for implemented remedial measures. The CSR due in March 2016 should include a proposed monitoring and maintenance (M&M) plan. The M&M plan should include provisions for monitoring and maintenance of engineering controls (including the building slab and rip-rap blanket), groundwater/seep monitoring, and reporting to EPD.

RESPONSE TO COMMENT #6: Appendix G provides a monitoring plan for the seeps and surface water. Appendix H provides operation and maintenance plans and inspection requirements for the building floor slab and rip-rap blanket.

COMMENT #7: Field Procedures: The following comments refer to field methods described specifically in Progress Report #9; however, many of these comments are also applicable to those field methods described and documented in the remaining subject submittals.

a. Section 3.1.2 of the Progress Report #9 states, "Low flow/low stress purging methodology employing bladder pumps and a peristaltic pump was used to purge and sample the monitoring wells in general accordance with USEPA Region 4 Science and Ecosystem Support Division (SESD) Groundwater Sampling Procedure SESDPROC-301-R3". EPD assumes that the referenced purging method is the Traditional Multiple Volume Purge Method. Please confirm the purging method used as described by SESDPROC-301-R3. Future field sampling logs should include the additional information referenced below:

RESPONSE TO COMMENT #7a: The monitoring wells were purged of three well volumes each and purged at a rate such that the water levels did not fluctuate more than 0.3 feet. Water quality parameters of pH, specific conductance, temperature and turbidity were measured and record after each well volume. Upon completion of purging three well volumes and stabilization of water quality parameters, water samples were collected from the wells. The field sampling forms show the amount of water purged from each well.

i. Pump Type: The narrative of the report states that either a bladder pump or peristaltic pump was used at each sampling location. However, the specific type of pump used at each location was not indicated on the associated field sampling logs.

RESPONSE TO COMMENT #7a.i: Monitoring wells MW-3, MW-5, MW-10, MW-14, MW-19, MW-20, MW-22, and MW-25 were purged using a 1.75-inch diameter stainless

steel bladder pump equipped with a Teflon bladder. A new Teflon bladder was used at each well. Monitoring wells MW-27 and MW-28 were purged with a peristaltic pump.

ii. Sample Collection Method: A description of the method by which the final water samples were withdrawn from the wells and placed into sample containers (i.e., peristaltic pump with vacuum jug, peristaltic pump using the "straw method", pumped directly into containers using a downhole pump, etc.).

RESPONSE TO COMMENT #7a.ii: While the bladder pump continued to pump at the same rate as used during purging, groundwater samples were collected by filling laboratory-provided sample containers directly from the Teflon-lined discharge tubing. For the peristaltic pump, the Teflon-lined tubing was disconnected from the drive head silicon tubing and water samples were collected from the wells by using the “drinking-straw” method to fill the sample containers. New tubing was used at each of the wells sampled.

iii. Composition of sampling equipment: Note that volatile organic compound (VOC) analytical results for groundwater samples not collected with Teflon®, Teflon®-lined, or properly decontaminated stainless steel equipment may not be used to demonstrate achievement of contaminant plume delineation and/or compliance with RRS. Furthermore, if sampling with a bladder pump, the pump bladder composition should also be specified and should be consistent with the composition of the tubing.

RESPONSE TO COMMENT #7a.iii: The stainless bladder pump was decontaminated by washing the exterior and interior the pump with phosphate-free detergent and water, rinsed with isopropyl alcohol, and rinsed with distilled water prior to insertion in each well. A equipment rinse blank was collected from the decontaminated pump and analyzed for site-specific VOCs, which none were detected. Teflon-lined tubing and Teflon bladders were used on the bladder pump to purge and sample the wells. The peristaltic pump does not come into contact with the water samples, only the tubing. Teflon-lined tubing was inserted into the well and silicon tubing was used in the peristaltic drive head. The Teflon-lined tubing was used to collect the water samples using the “drinking-straw” method. New tubing and bladders were used in each of the wells sampled and then disposed. Seep and surface water samples were collected by directly filling the sample containers from the seep and Manson Branch.

b. The "low flow/low stress" purge method typically requires the placement of the pump or pump intake immediately below the measured water level with the intake lowered as necessary during purging. The placement of the pump intake near the middle of the submerged portion of the screened interval when utilizing the referenced purge method is acceptable only if water levels are maintained within ±0.3 ft during purging and sample collection methods do not require stopping the pump and removing the tubing and/or pump after purging before sampling.

RESPONSE TO COMMENT #7b: The wells were purged using the "low flow/low stress" purge method with maintaining the water levels within ±0.3 ft during purging.

c. Future submittals should include a description of field equipment decontamination procedures implemented before and after use. If location-dedicated equipment (e.g., disposable tubing and bladders, etc.) are used, it should be stated within the narrative and associated field logs.

RESPONSE TO COMMENT #7c: New Teflon-lined tubing and new Teflon bladders were used at each well location.

COMMENT #8: Laboratory Certifications: Please provide documentation (including effective dates) of laboratory certifications for the analysis of soil, groundwater, seep water, and surface water samples.

RESPONSE TO COMMENT #8: Laboratory certifications are provided in Appendices A, B, and C.

COMMENT #9: Document Submittal Format: Please refer to the enclosed document submittal format guidelines for future submittals. Notably, electronic copies should be submitted on two labeled compact disks in jewel cases and a signed certification page should be included stating that the electronic copy is complete, identical to the paper copy, and virus free.

RESPONSE TO COMMENT #9: The CSR will be provided in the requested format.